Spring 5-7-2021

Rural Elementary Teacher Beliefs Regarding the Effectiveness of Their Homework Practices during the Pandemic

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RURAL ELEMENTARY TEACHER BELIEFS REGARDING THE EFFECTIVENESS OF THEIR HOMEWORK PRACTICES DURING THE PANDEMIC

A Dissertation

Submitted to the School of Education

Duquesne University

In partial fulfillment of the requirements for

the degree of Doctor of Education

By

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May 2021

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Approved December 4, 2020

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ABSTRACT

RURAL ELEMENTARY TEACHER BELIEFS REGARDING THE EFFECTIVENESS OF THEIR HOMEWORK PRACTICES DURING THE PANDEMIC

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December 2020

Dissertation supervised by Dr. Connie Moss

Abstract: Through the lenses of C.S. Peirce's Belief and Genuine Doubt, Albert Bandura's Self Efficacy and Collective Efficacy, Bernard Weiner's Attribution Theory, and Critical Race Theory, this dissertation captured and codified rural elementary teacher beliefs regarding homework and its effectiveness related to learning, and in particular, the effects brought on by the 2020 COVID 19 school closure. Rural school systems are under-researched and present notable differences in homework challenges, including access to libraries, technology and distance from home to school. Using qualitative research, this study identified themes regarding teacher perceptions of homework. The author explained that many of the long-held tenants of homework may be questioned as a basis for evaluating student learning, programmatic and curricular efficacy, and to raise the question of homework as an effective practice in the current school setting. The study concluded that despite the many changes in the

context of the pandemic and the opportunity to see homework differently, teacher beliefs about homework persisted. As school administrators look to craft policy, understanding homework from the teachers' perspectives is crucial, and the building of a collective understanding among faculty before developing a systemic model for measuring student learning is critical.

DEDICATION

This has been quite a journey, and while I know that in writing this section I write mostly for myself, I hope that those whom I mention know how much their love, support and patience has meant to me.

My beautiful, wonderful, amazing, intelligent wife—Ginny, all the good things I have are because you are in my life. You mean *the world* to me. In truth, you are my world. I am grateful to live in it. You are everything I could have hoped for in a partner.

Mom and Dad…this was always a dream. You didn't let me ignore it. You were there when I didn't always meet the mark. I hope that in this work I have finally hit that mark and made you proud. That matters so very much to me—that you are proud of the person I am. I love you both.

Nick, Liv and Roc…anything is possible. Dad loves you all so much. Thanks for understanding when I was working or was away from you. You are never, ever away from my thoughts.

ACKNOWLEDGEMENT

I would be remiss if I did not acknowledge some of the educators who helped me to achieve this goal. Thanks is simply not enough, but it is a start.

Dr. Moss…you are one of the most inspirational and motivating leaders with whom I have ever worked. Your influence on me and my thinking cannot be overstated. To be on this journey with you was a gift. I will always be grateful to you for your role in this accomplishment but more grateful to call you a friend. You are very important to me, and when you say that what I have done is good, then I know it is.

Dr. Olson…your encouragement and your critical analyses of my writings made me believe I could do this. You are a first rate teacher and an even better human. The impact of your lessons in class shaped so much of what I wanted to learn about on this journey. Thank you.

Dr. Scott…there aren't enough words, my friend. I hope that you see in me that your guidance and friendship accounted for much and that I see you as a transformational leader and a truly great person. Thanks for being tough when I needed it, and being one of my best friends in my life.

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Chapter 1

Introduction

The subject of homework in an educational conversation is likely to elicit a response that is passionate, personal and anecdotal. Everyone, it would seem, has an opinion. Throughout the past 100 years, homework has been both praised and panned by researchers, teachers, parents and most especially, by students. It is a common thread that runs through the story of education, and today, it is once again at the heart of conversation as students are working remotely and away from their teachers during the pandemic.

This study sought to examine the beliefs of six rural elementary teachers regarding their beliefs about the effectiveness of their homework practices. In the spring of 2020, the six teachers began to discuss their beliefs in team meetings as a part of their Professional Learning Community curriculum meetings. On Friday, March 13, 2020, Governor Tom Wolf ordered all schools in the Commonwealth closed for two weeks to mitigate the spread of the COVID-19 virus. Two weeks later, the Governor ordered the schools in Pennsylvania to begin remote instruction. The order remained in effect until the end of the school year. The teachers continued to meet virtually week by week to plan instruction and assessment as well as respond to the research questions for the study. The impact of the pandemic on teacher beliefs about their efficacy and the role of homework in a time when truly everything became homework is embedded in the analysis of this study.

Introduction to the Problem

Despite increased research arguing that homework is both a weak indicator of student learning and an inaccurate gauge of student achievement (Baker & LeTendre, 2005, as cited in Vatterote, 2011), entrenched homework and questionable grading practices based on assignments persist. Vatterote (2011) categorizes the reasons teachers give for assigning and grading homework into three themes: (1) "If I don't grade it, they won't do it; (2) "Hard work should be rewarded"; and, (3) "Homework grades help students who test poorly" (p. 61). It is interesting to note that these themes also reveal three common beliefs for assigning and grading homework, none of which emphasize student strengths or depth of knowledge. What is just as troubling is that many teachers use grades to heighten student motivation to complete their homework and also to punish students who do not. O'Donnell (2010) draws attention to the impact of these practices noting that "teachers who set up punitive grading systems create self-fulfilling prophecies by gearing their policies to the exceptions, the what-ifs" (p.1).
Homework can be many things. Researchers have endeavored to define homework in many ways (Cooper, 2001; Rosário, Núñez, Vallejo, Nunes, Cunha, Fuentes, & Valle, 2018; Orr, 2014).

In the research, homework's intent and educational benefits are also greatly debated (Valle, Regueiro, Núñez, Rodríguez, Piñeiro, & Rosário, 2016; Rudman, 2014). For the purpose of this study, the operational definition of homework is *work done independently by students at home*.

From writing definitions to complex essays, the type of assignment and how it purports to measure student understanding and achievement is as varied as the teacher and the beliefs about

the value of the student's work. When a teacher designs work to be practiced outside of the teacher's view, what purpose does that work serve? Is the work to reinforce? Is it to create opportunities for thinking? Is it to provide the teacher with "proof" that the student is prepared for the summative assessment? Is the work differentiated to show the student's individual understanding? Is the homework designed for convenient response and superficial feedback? How often is the ubiquitous "packet" sent home to all students, checked for accuracy and returned with simply a tally of right and wrong student responses? Blanket assignments given to all students will likely yield a predictable result: some will do it, some will try, and some will not.

Educators in every school and stakeholders in every community have beliefs about the importance, the value, and the objectives of homework (e.g., Cooper, 2001; O'Donnell, 2010; Kalenkoski & Pabilonia, 2017; Vatterote, 2011). Homework, in many ways, is the connective tissue that binds every building in the school district. While it clearly varies in type, amount, usefulness and impact, homework is a constant in the educational process of the students, teachers and parents in the system. Equally as constant, however, is the inconsistency with which the teachers who assign the homework define it, evaluate it, use it and attribute meaning to it. This is a significant problem for many educators in all aspects of student learning, and most certainly, from the perspective of a principal leading learning in an elementary school. This lack of clarity, inconsistency of purpose, and sometimes the negative impacts of homework represent a clear clarion call for deeper investigation into why homework in and of itself is so deeply rooted in our culture and yet so inequitably employed and applied.

Context of the Problem of Practice: Homework Beliefs in the Southmoreland Elementary School

To attempt to improve any problem of practice, people must first be willing to admit that the issue exists. At the school level context in Southmoreland, teachers have arrived at this point. They agree that homework policies vary from grade to grade, and in some instances, within grade levels themselves. What's more, they recognize that assignments are arbitrary and do not often reflect learning but rather a commitment to timeframes and task completion.

At Southmoreland Elementary, the philosophies connected to assigning and grading homework have been at the discretion of the grade level teams. This system was put in place by the previous principal of the school, who served as building administrator for over twenty years and directed the grade level teams to determine their own policies for homework and grading. For example, in 2017-2018, Grade 2 teachers agreed only to assign students homework for additional practice, noting that these assignments would not be checked or graded. At the same time, the Grade 3 team did assign homework that would be checked and graded. One teacher in particular developed practice packets that were given on Monday and collected on Friday. These packets varied in length, from five pages to fifteen, and were taken from different sources, including the textbook series, teacher generated assessments and online reproducibles. And while all of the third grade teachers graded homework, there was no agreement on how much weight homework grades would carry in the overall grading scheme for a report card period. Grade 4 teachers emerged as the most prolific homework givers, and also developed a system of detention for students who did not complete the assignments by the due date. Students not completing homework from the previous week served one hour after school on Thursdays, where the students were expected to complete the missing assignment for a reduced point total.

Interestingly, principals monitored detention, and often worked with the students on the assignments, and in a few cases, the principals commented that he or she did not feel confident in the assistance that he or she provided because it was not a subject or a concept with which he or she was comfortable or familiar. And finally, during that same school year, Grade 5 teachers assigned less homework and decided that the combined points for homework for all subject areas could be no more than 10% of the student's grade in those subjects so that it would not adversely impact the student's overall evaluation.

This disparity in beliefs and practices regarding homework exists within an educational system that has embraced common formative assessments and promoted the use of summative assessments to guide interventions. The current homework policy is determined by individual teachers or teams and is not connected to any pedagogical or educational theory. This realization begs the following questions: Are homework practices in the elementary school equitable? Do the practices allow students to truly demonstrate their learning and understanding of important content or are they more reflective of a student's ability to complete the assigned task? Do teachers use assessment evidence to tailor homework assignments to match the needs of individual students with the content? How is the homework valued and implemented to improve student learning?

This study focused on the beliefs and practices of teachers in the 3rd grade at Southmoreland Elementary School related to homework. Of the six third grade teachers in the building, three are graduates of Southmoreland School District. It is important to note that this factor of "hiring our own" may contribute to the beliefs teachers currently hold, the homework culture of the elementary school, and the prevalence of certain homework practices. To better explore these beliefs and practices it is important to understand who these professionals are and

the factors that might influence their beliefs and practices. It could be possible that these teachers were influenced by the experiences they had as students in the system in which they now work. That is, they may believe that Southmoreland School District including their homework assignments served them well as students. When asked about homework practices in their own schooling, teachers consistently remark that the homework was critical to their learning, and taken further, to their desire to ensure the same learning for others. "Everyone was given the opportunity to learn and practice," said one elementary teacher when asked about her memories of homework. "I did my homework because I wanted to get good grades. I think my parents expected it. But mostly, I wanted to get good grades and I think the practice made me successful on tests and other assessments." Another elementary teacher responded that, "I counted on homework to prepare me, and if the test didn't go well, I knew I had done what I could do to get ready. Sometimes, the tests were not like the homework and if that happened, I could count on the points I had earned on the homework, too, to save me." These remarks seem to indicate that their own experiences with homework could have helped shape their beliefs about the value and purpose of homework and help explain the culture supporting current homework practices in 3rd grade.

The literature review that follows explores relevant empirical and theoretical sources that shed light on this problem of practice guided by the following research questions:

1. *What are the beliefs of third grade teachers in the Southmoreland Elementary School regarding the effectiveness of their homework practices?*
2. *Are those beliefs impacted by their critical reflection on the characteristics of effective homework practices?*

3. Are their beliefs impacted by their critical reflection on and self-evaluation of their own homework practices?

The Demographics of Southmoreland School District

Southmoreland School District is a rural public school system in Western Pennsylvania. The district comprises 50 miles in total and supports the communities of East Huntingdon Township, Scottdale Borough, Everson Borough, and Upper Tyrone Township in the counties of Westmoreland and Fayette counties, respectively.

Approximately 1900 students attend four schools in the Southmoreland School District. Kindergarten and first grade students attend the Southmoreland Primary Center. Second grade through fifth grade students attend Southmoreland Elementary School. Grades six through eight attend the Southmoreland Middle School and grades nine through twelve attend Southmoreland Senior High School. The average class size is 145 students. 49% of the total enrollment is male and 51% of the total enrollment is female. According to PennData's most recent report, 14.28% of students in the Southmoreland School District receive Special Education (PennData, 2017). 52% of students attending school in the Southmoreland School District are considered to be economically disadvantaged (Pennsylvania Department of Education School Performance Profile, 2017). With regard to ethnic differences, the data is as follows:

Table 1.1: Demographic Data

Grade	American Indian/ Alaskan Native		Asian		Black or African American		Hispanic		Multiracial		Native Hawaiian or Pacific Islander		White		Total Enrollment
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
K5F	0	0	1	0	1	0	2	2	0	2	0	0	76	73	157
1	0	0	0	0	0	2	0	0	6	3	0	0	73	67	151
2	0	0	0	0	1	0	1	2	1	3	0	0	81	49	138
3	0	0	1	0	1	1	1	0	1	1	0	0	69	71	146
4	0	0	0	0	0	1	1	0	4	2	0	0	74	77	159
5	0	0	0	0	1	0	0	0	2	3	0	0	69	86	161
6	0	0	0	0	1	1	0	0	1	0	0	0	70	67	140
7	0	0	1	1	3	1	1	1	1	1	0	0	69	75	154
8	0	0	0	0	1	0	0	0	1	0	0	0	61	68	131
9	0	0	1	1	1	0	3	0	0	0	0	0	64	73	143
10	0	0	0	0	1	2	0	0	0	0	0	0	60	71	134
11	0	0	0	0	1	1	1	2	0	0	0	0	52	74	131
12	0	0	0	2	0	2	1	0	0	1	0	0	61	79	146
Column Total	**0**	**0**	**4**	**4**	**12**	**11**	**11**	**7**	**17**	**16**	**0**	**0**	**879**	**930**	**1891**

The faculty in the Southmoreland School District is comprised of 136 teachers. 39 teachers (19 male and 20 female) educate the students in the high school. 37 teachers (11 male and 27 female) teach the middle school students. At the elementary, 39 teachers (6 male and 33 female) educate elementary students and at the primary, 20 teachers (1 male and 19 female) teach primary grade students. The average years of experience for teachers in the Southmoreland School district is 14 years in the classroom. 51% of Southmoreland teachers have earned a Masters degree in education; 43% of Southmoreland teachers have earned a Bachelor degree and 6% of Southmoreland teachers hold a Doctorate. The average salary for a teacher in the Southmoreland School District in 2018 is $51,430.00

The Southmoreland School District has been highly successful by many of the current educational standards. Southmoreland Primary Center is a three time National DuFour School nominee and a 2017 finalist; Southmoreland Middle School has been named twice in ten years by the NASSP as a National Breakthrough School; Southmoreland High School is one of three 2017 *US News* Silver Medalists (joining Franklin Regional and Norwin, two highly affluent school systems in the county); and Southmoreland Elementary, which was recognized as a 2013 National Blue Ribbon School. According to the *Pittsburgh Business Times*, Southmoreland School District is the #2 Most Overachieving School District in the region and #6 in the Commonwealth of Pennsylvania.

If the district truly wishes to remain a school system that is most overachieving in the region and fourth most in the Commonwealth, it will make gains by determining what homework and grading represent. Moreover, the district must apply this system across all buildings. A comprehensive review of current beliefs and practices informs the planning for policy and training opportunities in the school system. The grading policies vary across grade levels, and in

some instances, within individual grade levels themselves. The assignments are arbitrary and do not often reflect learning but rather commitment to timeframes and task completion. These factors lead us to the inevitable crossroads of what to believe and why we should believe it.

Considering Professional Learning Communities and the School District

Southmoreland School District has been recognized as one of two systems in the Commonwealth of Pennsylvania for the work that has been done in becoming a Professional Learning Community. The district began its journey in 2002, when Dr. Timothy Scott introduced the model at the Junior High School, which at that time was failing by any academic measure one might wish to apply. In two short years, the school, which had fewer than four out of ten students proficient in mathematics, now boasted better than eight out of ten students proficient in the subject. The impact of collaboration, team developed norms, essential outcomes and common assessments meant that all students were accessing the best curriculum and were supported in that curriculum with intervention and enrichment times that were focused, targeted, and systemic. Teams met to plan instruction, discuss student concerns and to plan intervention and extension activities as a regular and routine part of the school day. Ownership of student success became a school driven action rather than a solitary teacher's lone effort in isolation.

Soon, Southmoreland High School (2007), Southmoreland Elementary School (2008) and Southmoreland Primary Center (2010) were also named as Professional Learning Community Models of Effectiveness by AllthingsPLC.info, the online arm of Solution Tree. Southmoreland Elementary School, which had been in School Improvement in 2008, was selected in 2012 as a National Blue Ribbon School of Excellence. Southmoreland High School has been named a *US*

News and World Report Silver medalist in 2016, 2017, and 2018. Southmoreland Primary Center has been nominated as a National DuFour School since 2015.

For many educators in a traditional schooling model, the role of the teacher is to solve the riddle of each class, each period, every day, alone. Professional Learning Communities founder Dr. Richard DuFour (2015) referred to traditional American schools as "fifty independent kingdoms united by a common parking lot."(p. 4). If that is true, it follows that for these teachers working in isolation, the beliefs and self-efficacy from experience becomes the bedrock foundation for all decisions the teacher makes. Teachers in traditional systems and settings answer to no one—they are the deciders. The freedom this affords teachers is revered, but is also concerning in 21st century education, because in that freedom, students are provided random and teacher-driven learning experiences. Teachers in schools where faculty work in isolation don't share best practices and don't ask peers for ideas on how to address an issue. Moreover, students in the same grade with different teachers can have wildly different experiences and can be measured in vastly different ways. If that pattern is repeated thirteen times over a student's educational career, the resulting educational experiences can be significantly different, and in some cases, inequitable as well.

This is not merely because teachers prefer to work alone. Systemically, teachers work in schedules that don't afford them the opportunity to meet with grade level or content level peers. If they do have time to talk to a mentor or respected faculty member, it happens organically—somehow, the teachers find a way to talk in the course of the day. It isn't regularly scheduled or routine, and it isn't required.

Professional Learning Communities (PLCs) are defined as "small groups of educators meeting regularly to engage in systematic peer critique and support by sharing their own

professional practices as well as artifacts of student learning" (Whitford & Smith (2010) as cited in Smith, Ralston & Naegele (2016),p. 22). A school that embraces this new model must provide time and support for teachers to work together, to discuss best practices, to align curriculum and to determine measures of student learning.

In the view of DuFour, DuFour, Eaker and Karnahek (2015), good teaching is a by-product of peer engagement and collective improvement—and it must become the accepted practice rather that an isolated occurrence. (p. 23). Schmoker (2005), as noted in Hoaglund, Birkenfeld and Box (2014), further explains that teacher teams that write essential outcomes, plan instruction, create common formative assessments, review results, and respond to the data are the engines of successful schools (p. 521).

Connecting teachers by grade and or subject, routinely and intentionally, with goals and norms, and meeting in those teams during the school day provides the structure needed for teachers to improve self-efficacy, but perhaps more importantly, to add to the team's collective learning, planning, instructing, analyzing and responding to student academic needs. It ends, in many ways, the organic, unstructured methods prized by autonomous and unchallenged teachers who chose what they taught, when they taught it and how it would be practiced and measured.

The years of success as a Professional Learning Community district result from a commitment to establishing essential outcomes, planning lessons and writing assessments together, analyzing the results of those assessments to identify opportunities to reteach and reassess, and identifying and codifying best practices. Relevant to this study, it is important to note the professional learning communities in the district never focused on homework, despite the evidence that it may have been inconsistently implemented. For all of its efforts to be a data driven system, Southmoreland School District did not recognize homework in any significant or

systemic manner. Because it was not given the same weight as alignment of curriculum, consistent common assessments and uniform instruction, homework was left to the discretion of each team, and by extension, each teacher. More importantly, the consequences of homework done poorly, or not at all, were not consistent, and in some cases, were even academically punitive.

For example, in the Junior High School, homework was monitored efficiently through a system called Guided Study. Students who had not turned in homework by Thursday at 3 PM would serve lunch detention, where the work was sent to the stage and the counselor proctored the completion of missing assignments. In the adjacent Elementary School, some teachers held students in during recess to complete work, while others gave zeroes, and still others created "work rooms" for teams to send a grade level's worth of students who had outstanding homework assignments. Many systems at play, with differing results, but lacking in consistency, clarity of purpose and often providing superficial evidence of student learning through packets and projects.

Murillo and Martinez-Garrido (2014) gathered data from 200,000 Latin American students in grades three and six conducted to examine how teachers designed and evaluated homework was as well the impact that homework had on achievement (p. 666-669). The researchers analyzed UNESCO's Second Regional Comparative and Explanatory Study (SERCE) data, designed to quantify how students learned math and reading. In addition, they used questionnaires from students, teachers and parents to gather context rich data points about the homework settings and connections to coursework (p. 670). The findings from the questionnaires showed that nearly every teacher in grades three through six in the surveyed group assigned homework at least once a week (p. 669), but interestingly, the third grade

teachers in both math and language arts (68.29%) assigned more homework than the six grade teachers (63.97%) (p. 670-671). The study found no statistical differences in achievement data related to the amount of time spent on homework, how often a teacher assigned homework, whether or not corrected homework provides feedback for students or even if the teacher builds on homework.

Yet one factor was found to be statistically significant. When the teacher used the homework assigned to formatively assess student understanding, the homework played a key role in discerning student readiness (p. 678). And while the study was not conducted in a school in the United States and cannot be generalized to all contexts, the results seem to encourage a view of strategically designed and interpreted homework as a way for teachers to collect collaboratively-designed, purposeful, authentic evidence inform collective decisions about student readiness and the selection of instructional practices.

Chapter 2

Review of Knowledge for Action

Assumptions about the Value and Purpose of Homework

Homework has been controversial in American education from the outset. In 1900, Edward Bok, the editor of *Ladies Home Journal,* stated in an editorial entitled "A National Crime at the Feet of Parents" that homework was to blame for "destroying American youth" (The Brown Center Report on American Education, 2014, p. 17). Pol's opinion on homework at the turn of the century highlights centers on his belief that students should spend time away from school engaged in family engagement and play rather than memorization and practice (p. 17-18).

The concept of homework in American education reaches back into the 19th century (Vatterott, 2009, p. 3). During the 1800s in the United States, a great deal of responsibility was placed upon children with respect to their obligation to work and their ability to contribute to the success of the family. Kralovec and Buell (2000) noted that "by the 5th grade, many students left school for work; fewer still went on to high school" (as cited by Vatterrott, 2009, p.3).

Historical perspectives matter in the study of homework in America. Gill and Schlossman (2004), as summed by Vatterott (2009), describe the need for homework in the early 20th century as a necessary function of student evaluation, as memorization of facts, numbers and literature was an expected outcome of instruction and learning, adding that "at a time when students were required to say their lessons in class in order to demonstrate their academic prowess, they had little alternative but to say those lessons over and over at home the night before. Before a child could continue his or her schooling through grammar school, a family had to decide that chores and other family obligations would not interfere unduly with the

predictable nightly homework hours that would go into the next day's lessons" (p. 4). The educational system further deepened divides between the wealthy and the poor as it demanded the practice needed for the evaluation to be done when an economically impacted student would often not be able to do so--at night or when the student needed to work (Vaterotte, 2009, p.4-6).

Gill and Schlossman (2004), as summarized in Maltese, Tai and Fan (2012), provide more context into the early history of homework in America, writing, "[T]here was little dispute about the role of homework in education in the 19th century. During that time, the age at which students could voluntarily leave school (14) was lower, meaning that students in high school attended by their own volition. Therefore, any assigned work was considered part of the duties they accepted upon enrollment." (p. 53). Indeed, Maltese, Tai and Fan (2012) explain that the view of homework in America in the first fifty years of the 20th century was that homework did very little to improve student learning and distracted students from the family (p.53). Despite the research at the time, however, surveys of parents indicated that parents still saw value in homework and fully expected homework as students moved through the system to increase in amount and difficulty (Maltese, Tai & Fan, 2012, 53-54).

The Russian launch of Sputnik in 1957 profoundly impacted American educational practices, and in particular, the importance of homework in American schools (Maltese, Tai &Fan, 2012, p. 53-54). The perception for many Americans at that time was that in order to compete with Russian space advancements, school systems would need to change—and with that change, expectations about the amount of homework and the rigor of homework were once again at the fore of educational and political discourse. "With the spotlight on education, some reformers sought to change homework assignments, starting a lasting discussion about the nature

of the task by focusing on the content and activities commonly assigned and how the work fit within students' time outside of school"(p. 53).

More currently, politics and policy have dominated the homework debate in the last fifty years. Gill and Schossman (2004) (as cited in Maltese, Tai & Fan, 2012), contend that the highly charged and politically volatile 1960s and 1970s turned attention away from education and homework, as the national focus fell on significant economic and cultural change (p. 54). The resulting movement from homework as evidence of good teaching and learning and toward more open and experiential classroom assessments was then derailed by the publication of *A Nation at Risk* (1983) and *What Works* (1986) a few years later. That data showed that the performance of American students compared poorly to the performance of students across the globe and brought once more into question the necessity of homework to ensure achievement. The conclusion of both reports struck a nerve with parents and politicians, and as a result, homework returned to the fore as the solution to lower test scores and perceived academic anemia on the world stage (p. 54). Etta Kravolec (2007), summarizing Gill and Schlossman (2003), writes, "Some historians argue that the faultlines on the homework debates between the 1900s and the 1970s can be drawn between those who see homework as school imperialism and those who view it as an important form of communication and between the school and the home" (p.8-9).

Homework in the 20th Century then was subject to the historical and political forces in our government. Homework practices and the reasons educators gave for those practices mirrored the values and beliefs of the people and the systems in their contexts. It is not surprising to see the rising and lowering of homework's value and importance in concert with the wider question of the nature of education in the United States and the accepted measures of learning in our schools. The adoption of The No Child Left Behind Act in 2002, for example, sparked a

significant number of researchers to reconsider the import of homework, much in the same manner that *A Nation at Risk* ignited researchers to question the practice in the 1980s. The 2014 *Brown Center Report on American Education* reinforced this point. In the report, researchers found that homework continues to find its way into political and public discourse, and the resulting attention drives researchers back into the data (p. 24). Interestingly, however, the *Brown Center Report on American Education* suggests that while research about homework is global in scope, policy (at a state or national level) should be limited, and disputes about the type, amount and value of homework really should be the work of individual school systems and their communities (p. 24). The larger question of homework as a trustworthy and accurate tool for improving student achievement continues to find researchers at odds, and with data supporting both positions.

The question of purpose in homework is a critical issue in the debate. Cooper (2001) speaks to it in his writing, defining the purpose of homework in four ways—practice, preparation, extension and integration (p. 35). Of these, Cooper documents that the purpose most frequently identified in research is practice (p. 35). But as Epstein and Van Vorhees (2012) point out, if the purpose of the homework is not clearly understood, and even more importantly, not recognized as valuable by the student, the likelihood of student completion is significantly lower (p.181) thus negating the value homework to provide practice.

In summary, one might ask if homework can be a positive tool for student learning or is it merely an adult construct that inaccurately describes student understanding. Again, homework shows itself to be contradictory and complicated as a research topic. Not surprisingly, Cooper and Valentine (2001) describe research on homework as often at odds with itself—plentiful in number of studies, divided in findings and lacking in consideration of counterevidence (p. 144).

For example, when Jerrim, Lopez-Agudo and Macareno-Guitierrez (2018) investigated the Program for International Student Assessment (PISA), they found that Finnish students score among the highest of on that assessment even though Finnish students complete significantly less homework than students from other countries. The researchers also found students from Singapore and Hong Kong, who spend a significant amount of time on homework, also score among the highest on the PISA (p. 2). These findings begs the question of the role that homework actually plays in student learning and achievement versus the influence of instructional culture.

Defining Homework

Homework, by its nature, is difficult to define and perhaps more difficult to quantify. Many studies have been completed in an effort to further the understanding of homework's impact across contexts from student achievement to family dynamics and beyond. Cooper (2001) points out that when defining what homework is and what homework does, consideration must be given to many factors. Teacher homework construction and measurement, student differences, home and parent involvement and the larger community norms and values, all impact homework research with respect to research questions, data collected, and conclusions drawn (p. 144).

Researchers have endeavored to define homework in many ways (Cooper, 2001; Rosário et al, 2018; Orr, 2014). In the research, homework's purpose also greatly debated (Valle, Regueiro, Núñez, Rodríguez, Piñeiro, & Rosário, 2016; Rudman, 2014). Cooper (2006) defines homework as "tasks assigned to students by school teachers that are meant to be carried out during non-instructional time" (Bembenutty, 2011, p. 250). Cooper's definition is clear and to the point, and yet, in schools and communities homework is seen as much more than a mere task

to complete at home and assign consequences how well and when a student completes those tasks.

Many educators put a great deal of emphasis on the work that is completed outside of the classroom. Often, when students don't complete assignments or do poorly on them, this is the catalyst for a change in student attitude regarding the content, the subject, and even school as a whole. That is because a common response to a poor or incomplete assignment in many schools is a negative intervention or punitive measure such as detention, work room or loss of recess, exclusion from extra-curricular activities and more.

Indeed, homework grading practices are often a reflection of the individual beliefs held by each teacher on the import of content and the need for students to have adequate command over it. Beliefs live at the heart of homework—for teachers, students, parents, schools and communities. As with any personal belief about an educational practice they are deeply entrenched, wrapped and rooted in personal and cultural experiences (Schreiber and Moss, 2002), and in the case of homework, embedded in the larger belief systems of schools and teams. In the absence of valid evidence of achievement, teachers rely on past practice and homework collection because it is what teachers have always done. Fisher, Frey and Pumpian (2011) describe a teacher comment regarding low homework grades: "[w]e really don't know why most of them are failing. In fact, a whole group of them may actually understand the content but have compliance issues. We just don't know any other way to grade." (p. 46). This comment is not uncommon for many teachers when asked about homework grades and the evidence they provide regarding student learning and achievement (p. 14).

Perhaps the question of homework as a driver for student learning should be viewed through the prism of motivation. Motivation is defined by Wolters (2003) as one's dedication to

a task and the beliefs that guide that dedication (p. 190). A task assigned by a teacher for practice after school hours tests the motivation of students. Fugi, Jianzhong, Heping and Ninjiang (2016) cite Wolters (2013) who concluded that it is difficult to engage and sustain motivation for today's students during the course of the school day unless the work is authentic and meaningful, and that it is even more difficult to carry that motivation to practice beyond it (p. 2). In other words, if it is difficult to keep some students focused throughout an assignment in class, it is even more unlikely that those same students will be driven to do their best on an assignment without support from a teacher or if the student is unclear on the purpose or value of the practice (Cooper, 2001, p. 35).

Finally, Cooper and Valentine's review of homework's history (2001) suggests four important considerations for any investigation of homework in schools. First, homework is a significant part of the American students' school day and after school time. Second, teachers do not share uniform practices in assigning, grading or collecting homework; nor are students consistent in completing or returning assignments. Third, teachers generally believe that homework can be a positive component of student learning. And lastly, the public's view on homework is often guided by current political and cultural concerns rather than the efficacy of homework as a tool for learning (p. 146).

The Case for Homework

For many teachers and parents, the concept of homework is logical. Students practice independently and are evaluated on their individual performance to determine their competence with specific content, reasoning processes, and skills. Indeed, independent practice is considered by many to be the difference maker between motivated and successful students and peers who do

not meet with the same success in academics. Practice, it would seem, makes proficient. Much has been written on homework, and the findings are as varied as the researchers and their methods. What follows is a review of the most relevant studies that help make the case for homework as an important part of schools and schooling.

In 2006, Harris Cooper, Jorgianne Civey-Robinson and Erika Patall conducted a meta-analysis of homework research. They began by gathering 4,000 possible studies using the keyword "homework". A team of two researchers sifted through the studies, narrowing the selections based upon criteria that included homework done by the student and a corresponding measurement of achievement (p. 12). The meta-analysis uncovered several notable data sets, including the NELS:88 (1988-1992), the Longitudinal Study of American Youth (referenced by Brookhart, 1997), and the High School and Beyond Longitudinal Study (a sample of 28,051 twelfth grade students). Ultimately the meta-analysis focused on a final analysis of 32 studies (p. 37). From these, the researchers identified 69 correlations between homework and learning—50 were positive correlations, and 19 were negative (p. 37).

The Cooper, Civey Robinson and Patall (2006) meta-analysis support some of the findings regarding the positive benefits of homework that resulted from the Cooper and Valentine meta-analysis (2001, p.146) Cooper and Valentine reviewed over 120 studies of homework impact along with the factors associated with effective homework. Their study included 3,300 students from 85 classrooms across 30 schools (p. 146). The researchers narrowed their analysis by two focus areas—the achievement differences between students who were assigned homework versus the students who were not; and, the kinds of evidence used to draw conclusions regarding the impact of homework. Each focus area will be described in turn.

Cooper and Valentine's (2001) first examined the achievement differences between students who were assigned homework and students who were not assigned homework or any other outside practice. They found in 20 samples for this area of focus. Fourteen of the 20 showed a positive impact from homework resulting in an effect size of *d*= .21 (p. 146). And while they did find an effect, it is a small effect size.

In the second focus area, Cooper and Valentine (2001) collected data for 48 usable comparisons. Of those 48, the researchers note that 18 studies selected classroom assessments and teacher grades as the evidence for homework impact and the remaining thirty studies employed standardized achievement assessments as evidence (p.146-147).

While Cooper and Valentine (2001) found evidence that supports homework as a practice, the effect sizes were small and well below the impacts of other instructional practices like formative assessment, feedback, and student self-assessment (Hattie, 2009). What's more is that the researchers note that the effect of homework in the meta-analysis is dependent upon grade range and subject matter (p. 147). High school students saw the most value in homework in relation to performance on teacher created assessments, teacher grades, and standardized tests with an high effect size of *d*=.64, while elementary students saw the least impact with an effect size of *d*=.15, or better than a fourth of the high school students (Cooper and Valentine, 2001, p. 147).

Maltese, Tai and Fan (2013) disagreed with the validity of Cooper's positive homework evidence, explaining that the 2006 Cooper meta-analysis produced only a few results in which the outcomes of homework were specifically analyzed in an experimental or quasi-experimental study, leading Cooper to then review those specific studies to better clarify homework's value and impact on achievement. Maltese, Tai and Fan (2013) also argued that many of the studies

selected for Cooper's (2006) meta-analysis focused on the association between amounts of homework reported by students and their results on achievement tests (p. 54). Finally, Maltese Tai and Fan (2013) noted that although Cooper's 2006 meta-analysis found that homework completion resulted in a significant and positive correlation between student achievement and homework, especially for secondary students (p. 54), two of the studies used in the analysis concluded that while "there is a significant and positive association between homework time and achievement, the findings lack resolution because both studies used summed values for homework time and achievement" (p. 54). Notably, Cooper, Civey-Robinson and Patall (2006) conceded that while there was solid evidence of positive impact from homework, those impacts were separated by grade level and subject matter, making the case for homework across curricula less powerful, aligning with the conclusion of Cooper and Valentine (2001).

Other impacts of homework have been routinely questioned by those on both sides of the argument. In opposition to homework, Alfie Kohn (2006) takes the subject of homework's impact and the reliability of research on homework head on. Kohn asserts that researchers often make connections that they wish to find (and, perhaps that support their beliefs) rather than reporting what the data indicate (p. 9-12). Kohn's conclusions primarily questioned the findings of Cooper. Kohn (2006) saw Cooper's findings (2001, 2006) as indicating a "correlation" between homework and not "causality" (p. 14). Kohn suggested that homework, taken alone and with the limits applied to the study with respect to external factors like teacher efficacy, parent engagement and student motivation, was at best a correlation for older students who have the ability to decide and work independently along with the experience to work responsibly (p. 14). Along with Cooper's results, Kohn revisited the claims of Cool and Keith (1991) who based their conclusions on data from over ten thousand students that showed regarding positive benefits of

homework. Kohn (2006) disputed their findings based on his conclusion that Cool and Keith (1991) did not analyze homework in isolation, but added other internal and external factors including coursework, quality of instruction and student motivation, leading Kohn to suggest that when these factors were excluded, the positive effect of homework dropped significantly (p. 14).

Kohn (2006) also took on Cooper's (2001; 2006) circular logic that homework at the elementary level may have important non-academic values (p. 18). Cooper proposed that homework teaches elementary students study skills, promotes a positive school perspective for students, and informs them that learning happens beyond the walls of the school. And while these impacts might be true, Kohn argues that Cooper did not find evidence that homework improved students' perceptions of school nor did Cooper find evidence of this in any of his research (p.14). In fact, Kohn (2006) states that in his reading of Cooper's research, Cooper and Valentine (2006) use the 1999 study by Muhlenbruck, Cooper, Nye, and Lindsay to support a claim of impact on students' perceptions of school, but Kohn could find no data in the research article journal nor any reference within the work that used empirical evidence to support the claim that homework had importance beyond achievement (p. 15)

Ramdass and Zimmerman (2011, pg. 199) acknowledged Alfie Kohn's (2007) strong opposition to homework especially his contention that homework does not improve learning, study skills, or strengthen student responsibility, but rather merely prepares them for classroom performance. Others like Kravolec and Buell (2005) refuted Kohn's preparation for performance argument, finding instead that the practice, when done well and with clear outcomes, provides students with preparation that does translate into improved performance (p. 199-200). Kralovec and Buell put it this way--homework "enhance[s] students' academic achievement…[and] meta-analytic studies reveal that the standardized mean differences on tests between students who

completed homework versus those who did not ranged from *d*=.39 to *d=.97,* implying a positive relationship between homework and achievement" (p. 197). Therefore, Kralovec and Buell concluded that findings regarding homework are positive, and that homework can be predictive regarding performance on future summative assessments. Based on these findings the researchers and advocate for homework's continued inclusion in educational practice (p. 199).

Power, Watkins, Mautone and Walcott (2015) take a different view, arguing instead that homework is a critical communication tool between the teacher and the home (p. 261), and that for teachers and parents alike, homework is seen as clear and accepted evidence of quality instruction and deep, sustained learning. While this perspective is important, it is still debatable whether homework provides feedback from the teacher to the home. Specifically, Power, Watkins, Mautone, and Walcott did not consider the quality of the feedback, its accuracy or value, nor whether it is the best available avenue through which to initiate communication between teachers and parents regarding students.

Other proponents of homework also conclude that homework's impact on learning differs across grade levels, grade bands, and by sex. In Kalenkoski and Pabilonia's 2017 study of the impact of homework on high school academic achievement, for example, the authors chose to examine two data sets rather than a traditional time-diaried post-secondary survey. The two collection methods in Kalenkoski and Pabiolia's study are the Child Development Supplement to the Panel Study of Income Dynamics (PSID-CDS) and its follow-up, the Transition to Adulthood Survey (TA) (p. 45-47). Kalenkoski and Pabionia (2017) collected those data sets from 1648 students who attended grades 9 through 12 and limited the sample to eventual high school graduates (p. 47). The authors took pains to control for "a rich set of variables that includes students' characteristics, such as early test scores to control for ability, demographic and family

background variables, school-level characteristics, and other external factors". (p. 56). What was particularly interesting was that through their control efforts they discovered that any positive effects for female students evaporated over the course of their academic careers while male students did see benefits over time (p. 56). Kalenkoski and Pabionia (2017) explain "that total homework time, time spent in homework as a primary activity, and sole-tasked homework time all substantially increase the probability of college attendance for boys, perhaps because they do significantly less homework than girls on average". The researchers concluded, therefore, that "homework time experienced without any distractions has a small positive effect on high school boys' GPAs" (p.56).The authors' conclusions reflect a positive impact on male high school students who complete unidimensional homework assignments and their likelihood of attending college, though it is not found to be as impactful for female high school students. Finally, their research aligns with Cooper's assertion that homework can positively impact student achievement on normed tests, particularly in the middle and high school years.

Other studies have placed emphasis upon student age and grade level when examining the impacts of homework. A 2011 study by Eren and Henderson reviewed homework's impact on middle school students in their core classes, using the National Center for Educational Statistics's NELS:88 data collected from 1,032 schools and 25,000 eighth grade students. The researchers wanted to eliminate to the highest degree the efficacy of individual teachers and students in order to more reliably measure homework's impact on student achievement. To limit the efficacy impact, Eren and Henderson (2011) selection of the NELS:88 includes a "matched pair feature" of the data set. "For every participating student in the base year, the NELS gathered information for two academic subject teachers, which allows us to observe two outcomes for each student. In addition, the surveyed teachers in the NELS usually teach multiple classes." (p.

951). It was because of this method, the researchers concluded that "it is possible to construct contemporaneous within-student, within-teacher comparisons that largely eliminate the unobserved student and teacher traits" (p. 951).

The NELS:88 study included cognitive tests in math, science, English, and history. The teachers were asked to complete questionnaires outlining their educational background and classroom environments. The pairs assigned to each student were given one of four possible subject groupings: math/English, math/history, science/English, and science history (Eren and Henderson, 2011, p. 951-952).

The study found that math teachers gave the most homework in one week intervals (2.4 hours per) and hat science instructors give the least (1.8 hours per). The resulting improvement in math scores for students given the Peabody Individual Achievement Test, an improvement of 1.77 points was recorded by students. However, additional homework time in English and history was found to have little or no impact on the PIAT. Moreover, no impact regarding how the teacher's valued the homework (graded or ungraded) was evident from the results. Most importantly, Eren and Henderson (2011) note that "a meaningful effect of math homework could be found for those whose parents had a high school diploma or some college." (p. 960). This final point, finding raises concerns about social justice implications of homework. In other words, for students who have more educated parents, there may be an advantage regarding the positive impacts of homework.

Interestingly, Eren and Henderson (2011) concluded that while homework is often a subject debated by educators as a practice, the research supports the finding that giving and not giving of homework is cyclical and dependent upon cultural effects in time. They also discussed that policy makers largely ignore homework because it is a low-cost tool for student learning as

opposed to cost cutting measures like class-size reduction or curriculum adoptions (p. 951). The researchers concluded that if homework can be proven as a leveraging tool for student achievement, then more policy and research might be done regarding homework practices as it would be shown as impactful and cost-efficient.

Although Eren and Henderson's (2011) study focused on middle school students and cannot be generalized to the third grade setting that is the focus of this study, their conclusions can inform this investigation of homework practices in an elementary school setting. And, when considered in tandem with Kalenkoski and Pabilonia's (2017) findings, their study suggests a direction regarding the variables (i.e., ability, demographic and family background variables, school-level characteristics, and other external factors) that might prove important when designing a process to improve homework and its impacts for younger children.

Finally, a review of the literature reveals the alarming trend that more homework is being assigned to the youngest children in the elementary schools than in previous years. This was the conclusion of the *Brown Center Report on American Education* (2014) that collected homework data through the National Assessment of Educational Progress (NAEP). The data were collected through a survey given to selected students aged 9, 13 and 17 and highlighted several homework trends. Particularly relevant to the current study, the report found that a greater percentage of the youngest students in schools are assigned more homework now than in the past. In fact, 57% of the 9 year old students surveyed responded that they had at least one hour of homework yesterday, which is a three percent increase from the 2008 survey results. When considered in conjunction with Hattie's (2009) findings that homework has an effect size of 0.29 (reflective of a very small return on investment), an increase in homework amount for third grade students seems to contradict current research that does not support homework as a strong factor in

increasing achievement and learning (p. 19-20). Specifically the NAEP data found in 1984 35% of 9 year old students reported having no assigned homework. That percentage increased to 41% reporting an hour or less in 2012, and then in 2014 9 year old students indicated that only 22% had no homework assigned and 57% were asked to complete an hour or less per day (p. 20).

The Case against Homework

It is not difficult to find compelling research opposing the role of homework in increasing student learning and achievement. Most recently, researcher John Hattie's (2009) meta-analyses of factors that impact student learning reveals that homework has a minimal impact on deep and meaningful learning for students. Terhart (2011) writes that in the analyses, Hattie "illustrates …the effect of homework which has an effect size of d=0.29. Of the 161 research studies dealing with the effect of homework, 65% showed a positive effect while 35% showed a neutral or negative effect" (p. 427). Terhart explains that Hattie's measures reflect "an effect size of 0.2 as small, 0.4 as moderate and d above 0.6 as strong…[w]ere homework introduced in 100 classes, which so far had not been given homework, one would find in only 21 of them an increased performance." (p. 427).

Hattie's work suggests that the minimal positive effect that comes from the use of homework does not make a real world difference. In fact, there are countless other educational practices that have a far greater impact. What is more striking is that homework's impact is further minimized by the many additional factors that Hattie did not include in his analysis, such as those factors both inside and outside of the classroom that are not controlled by the school (Terhart, 2011, p. 426). The inside factors include individual teacher's values along with outside influences like parental involvement, cultural relevance, and poverty among many others (p. 246-247). Terhart further argues that those factors may very well have more import than the quality and type of homework given by a teacher and how valuable the feedback the student may take from the homework itself. In fairness, it is important to recall that homework supporters Cooper and Valentine (2001) also raised a concern for external factors as well in the conclusion of their 2001 meta-analysis (p. 151) that showed positive impacts of homework.

A meta-analysis of recent homework studies conducted by Bas, Senturk and Cigerci (2017) focused on answering the question of homework's effect on student achievement (p. 31). The research team, using the meta-analysis methodology of Glass, McGaw and Smith (1981), identified 88 studies published from 2000-2015 that met established criteria regarding homework and achievement data. The criteria applied to the 88 qualifying studies yielded 11 accepted selections (p. 33). The participant sample that resulted from the 11 selected studies included 323 elementary students, 287 high school students and 252 university students in the data set (p. 33-34). Applying Cohen's *d* to determine effect size of homework on achievement, Bas, Senturk and Cigerci (2017) noted that seven of the eleven studies yielded small or statistically insignificant effect sizes. (p. 44). In both studies, homework had a minimal positive effect on achievement in the secondary levels, and limited to high school mathematics. Over and over, studies that show a positive impact from homework find no positive impact in the elementary levels, where one might think practice and skill building would be most necessary or would yield the highest return on student achievement.

Other researchers looked at the amount of time students dedicated to homework to arrive at conclusions regarding its impact on learning and achievement. A 2018 study of fourth grade students in twenty-four countries compared the amount of time students dedicated to homework against achievement results (Jerrim, Lopez-Agudo and Macareno-Guitierrez, 2018, p. 2-3). Using the PIRLS 2011 and TIMSS 2011 assessments to gather achievement data for math, science, and language arts, the researchers gave to teachers of students who took those assessments. As a result, the researchers were able to compare student performance against teacher-expected time on homework in those disciplines (p. 4). The resulting data showed that with the exceptions of Lithuania and Georgia, where results showed significant effects of time on

homework and achievement (.022 and .024 standard deviations for every additional ten minutes of expected time on homework, respectively), when weighed against the PIRLS and TIMSS data (with average scores of 500 and a standard deviation of 100), even a one-hour increase in homework for students only yields an improvement of 0.132 and 0.144, respectively, a modest gain at best. Overall, Jerrim, Lopez-Agudo and Macareno-Guitierrez concluded that their data showed no evidence that the amount of time spent on homework results in a significant improvement on achievement measures (p. 9).

Even if one accepts the softer values for homework as a tool to promote independent learning and love of school, the matter of using homework as evidence of learning and therefore grading homework challenges logic. If homework is to be graded, the inherent subjectivity of each teacher's beliefs can result in evidence of achievement that is collected and applied incorrectly, resulting in what Moss and Brookhart (2012) refer to as the "garbage in, garbage out" principle of grading. Especially considering that teachers misjudge the quality of the homework assignments themselves and the degree that homework assignments produce compelling evidence of student learning and achievement of specific content and concepts, and differentiate among students of varying needs and abilities. Clearly, the use of homework as a reliable and valid measurement of student understanding can be vary greatly, and the resulting impact of the use of invalid and unreliable evidence can have far reaching and harmful impacts on conclusions regarding students academically, socially and emotionally. When considered with arguments regarding the effectiveness of homework at the elementary level, Cooper and Valentine's (2001) declared the correlation between student performance on teacher assessments, the grades earned or given, and the impact of homework is weak, most especially in the

elementary grades (p. 151). Based on the evidence, one has to wonder if the practice of assigning homework shows no appreciable benefit to younger students.

In summary, proponents of homework found impacts to achievement that were shown by opponents to be varied and often muddled. Cooper, Civey Robinson and Patall (2006) concluded based on their meta-analysis that while there was evidence of the positive homework influence correlation, it was clearer at the secondary level (grades 7-12) rather than in the elementary band (grades K-6). (p. 50-51). Moreover, among several factors that shape the strength of homework as a measure of student achievement, there is particular concern regarding an elementary student's ability to attend to the assignment that is exacerbated by their lack of "study habits" (p. 50). Cooper et al (2006) admit that elementary teachers "may use homework for other purposes in earlier grades because they are aware of its limited potential for improving achievement" and that homework is sometimes given rather to "develop young student's management of time"—a skill that is not measureable on any school assessment (p. 50). Even homework's most consistent champions, Cooper et al (2006) ultimately admit that there may be some advantages for students in specific subjects or at certain ages, but that "there is no evidence that any amount of homework improves the academic performance of elementary students" (p. 109).

Parental Views and Roles Regarding Homework

Parent involvement has been found to be crucial to homework completion and student learning. It follows then that conclusions regarding the impacts of homework must reflect the differences in a student's academic support at home and the effects of that support on each student's performance. Gonida and Cortina (2014) suggest that "parent involvement in children's homework is beneficial for learning and achievement only under certain conditions and for

particular groups of individuals" (p. 377). That is because parental beliefs and experiences shape their views about their children's work, and in turn, student perceptions may be influenced by their parents' implicit and explicit beliefs. In fact, the 2014 *Brown Center Report on American Education* explains that two Met-Life surveys (1987; 2007) investigated parent views regarding the amount and quality of homework. The report found that 60% of the parents interviewed, believed the type and amount of homework to be correct (p. 22-24). A separate poll conducted by *Public Agenda* found that 68% of parents thought that their children's homework type and amount was "about right" (The Brown Center Report on American Education, 2014, p. 23). It would seem that many parents may hold the belief that the amount of homework and type of homework indicate the amount of learning and preparation they expect for their students. Homework, in this context, becomes the measure for the quality of school, the quality of teacher, and the value-added impact of graded practice.

These parental beliefs are concerning since student motivation and self-regulation will be impacted in nearly every case by how parents respond to what as being assigned, how students are asked to do it, and whether the teacher's evaluation of the homework is important within the family dynamic.

In fact, the kind of parent engagement in homework that most positively affects student achievement is rule setting. This includes things like establishing times for homework to be done and selecting a designated homework place for students to practice quietly. Conversely the least helpful parental involvement was monitoring which includes practices such as parents actively observing students completing the assigned homework and checking to see that the work is completed. (Madjar, Shklar, & Moshe, 2016). The researchers drew on goal orientation theory (Dweck, et al, 1986). Goal orientation theory is grounded in three disciplines: mastery

(competence), performance (assigned grade) or performance avoidance (consequence driven). Combined with Hattie's (2008), the researchers underscored the low return on investment that homework garners. In addition, Madjar, Shklar, and Moshe cite Trautwein's (2007) conclusion that homework completion and time spent do not matter nearly as much as the time the student spends truly engaged in the work, and therefore, in the learning, and that the quality of the assignment matters much more than its length or the frequency of repetition. The study found that parent beliefs about homework positively impacted student effort on homework, particularly when parents emphasized mastery of the skill rather than the grade the student achieved (p. 81-84). And while Watkins, Mautone and Walcott (2015) posit that homework "facilitates communication between the home and the school" (p. 261), it does not indicate that homework is achieving the intended purpose—retention and prediction of achievement on future measures.

Parents who oppose homework often hold larger issues with the school as a whole. The *2014 Brown Center Report on American Education* points out that for the small number of parents for whom homework is an issue, there are serious concerns about communication with the school and supports for parents who are unable to participate in meaningful ways with students in homework for a variety of reasons (p. 24).

When a teacher assigns homework with the expectation that a students will need support from a parent to complete it, negative effects can be found. Patall, Robinson and Cooper (2008) discuss this concern in their review and synthesis of 14 studies related to parent involvement in homework practices, noting that both positive and negative outcomes may be found concurrently with respect to parent involvement. For example, a positive effect may be that the work the teacher has assigned to the student is completed in a timely and appropriate manner, and at the same time, that assignment may have caused frustration and stress between parent and child (p.

1055). If deep and meaningful learning is truly the objective that teachers wish to achieve, then the mode of practice that requires a parent's commitment is impractical for many and in some instances, it may even inhibit the learning. (Patall et al, 2008, p. 1055-1057).

Rationale for the Theoretical Framework

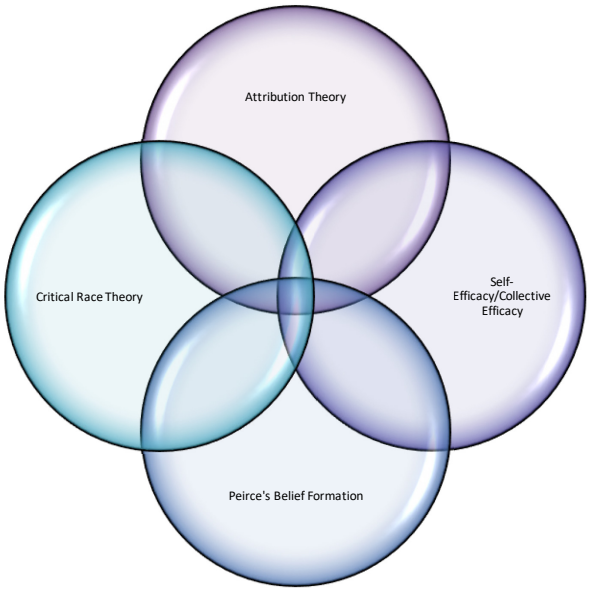
In order to study the complex nature of homework within the context of the Southmoreland School District, it is necessary to employ several theoretical lenses that work in concert to reveal contributing aspects that both help to form, ground, and institutionalize the beliefs that educators might hold regarding homework. These aspects are tightly lashed to the unique context of Southmoreland. Specifically the district's rural location, high instance of poverty, and conditions that promote marginalization warrant the examination of homework through the lenses that I chose to build the investigative framework. What follows is a discussion of each lens of the framework to note how each theoretical lens contributes to understanding the investigation and how the theories work together to provide a robust examination of the research questions.

Lenses of the Theoretical Framework: Formation and Transformation of Belief, Self-Efficacy, Collective Efficacy, Attribution Theory, and Critical Race Theory

Belief Formation (Cunningham, Schreiber & Moss, 2005, p. 178-180), Self-Efficacy (Bandura, 1977, p. 194-197), Collective Efficacy(Gray, Kruse & Tarter, 2017, p. 3), Critical Race Theory (Ladson-Billings and Tate, 1995, p. 48) and Attribution Theory (Weiner, 1972, p. 203-204), when considered separately and in concert, form a useful set of complimentary lens through which to examine the complexity of teachers' actions and the beliefs that determine and

support those actions. While each theory contributes valuable insights regarding what teachers believe, why they believe it, and how those might be best challenged, taken together, the theories provide a supportive and reinforcing context that may be synthesized to strengthen both the literature review and the study itself (See Figure 2.1).

Figure 2.1: Theoretical Framework for Examining Teacher Beliefs about Homework



Each theoretical lens is examined in turn and their influences on each other are considered to not only explain the theoretical framework as a whole but to provide justification for the relevance of the theoretical framework to the study.

Peirce and Belief Formation

"Upon this first, and in one sense this sole, rule of reason, that in order to learn you must desire to learn, and in so desiring not be satisfied with what you already incline to think, there

follows one corollary which itself deserves to be written upon every wall of the city of philosophy: Do not block the way of inquiry." (C.S. Peirce, 1898, p. 178).

Belief formation is a critical lens that aids understanding of why many traditional educational systems persist even as the world and our society change and evolve. Zheng (2013) explains that beliefs are illogically constructed and contradictory in nature, noting that "teachers' beliefs—whether they are implicit or explicit—may demonstrate qualitative differences, the interaction of which may lead to the emergence of new aspects of the relationship between beliefs and practice. The beliefs in a system never appear fully independent, which, consequently, argues for research to focus on teachers' beliefs as an interrelated system" (p.332). Teacher beliefs, then, can be conceptualized as a combination of thoughts, beliefs, perceptions and values regarding what teachers believe "works" and how students learn (Schmid, 2018, p. 3). And yet, the question remains. Where do these beliefs come from? How do these beliefs remain solidly entrenched in the thinking of educators even in the face of data that indicates that homework provides little if any credible evidence of student learning and retention?

The work of philosopher Charles Sanders Peirce (1839-1914) is essential to considering the formation of beliefs, and by extension, the formation of teacher beliefs. Peirce (1839-1914), a founder of Pragmatism and a pioneer in Semiotics, was a prolific writer and theorist (Misak, 2006, p.1 1-8). Peirce, as quoted in Cunningham, Schreiber and Moss (2005), explains the role that our beliefs play in "guiding our desires and shaping our actions" (p. 179). A personal belief is comfortable and reliable—it is always there to draw upon if needed (Cunningham, Schreiber & Moss, 2005, p. 179). Peirce viewed doubt, by contrast, as uncomfortable and untenable. And because doubt causes discomfort, Peirce theorized that doubt propels an individual to return to

the comforts of the individual's current belief through what Peirce terms "inquiry" (Cunningham, Schreiber & Moss, 2005, p. 179).

Peirce details the power of tenacity of a person's current belief, or the assertion of belief in response to doubt "though the belief does not resolve the doubt." (Cunningham, Schreiber & Moss, 2005, p. 180). To truly produce a change in belief, Peirce identifies three possible agents: authority, *a priori* and experiment (Cunningham, Schreiber & Moss, 2005, p. 180). Authority, as defined by Cunningham, Schreiber and Moss (2005), calls for the acceptance of opinions by others in perceived states of higher learning, respected roles and greater experience. In education, this model of inquiry is often weakly employed as a component of teacher preparation that includes pre-service teachers working with "critic" teachers, or veteran educators who may offer practical solutions for the field to the new teachers. Teachers, and coaches, too, serve to answer inquiries of students and athletes, respectively, in a similar fashion when a student or athlete posits a question that the teacher or coach may speak to from knowledge and experience. Yet there is little research to support conclusions that this coaching works to alter preservice teacher beliefs (Peterson, Schreiber, & Moss, 2011, p. 32).

To aid in understanding why it is so difficult to alter a belief it is important to note that Peirce did not view belief as necessarily equal to truth. Rather, he viewed belief as the individual's understanding, in context, and therefore what the individual accepts as truth based upon the person's "lived experiences."

Cunningham, Schreiber and Moss (2005) put a finer point on it to highlight what Peirce meant by "genuine doubt". In their view, *genuine* doubt is not feigned or pretended. Rather, it is a state of extreme discomfort and therefore is the only way for true and meaningful change of beliefs to occur (p. 179). In fact, genuine doubt can be so disruptive that an individual first works

to retain the status quo through *a priori* --the attempt by the individual to connect a doubtful circumstance to a previous experience and rationalize an explanation for the dissonance that returns the individual to the comfortable original belief (Cunningham, Schreiber & Moss, 2005, p. 181). *A priori* is the individual holding fast to and refusing to relinquish beliefs that are grounded in the individual's own experience or given to the individual through a trusted authority. In the process, the individual works to apply that personally accepted belief to resolve the doubt using the structure of the current belief or a modified form of it (Cunningham, Schreiber & Moss, 2005, p. 181). In other words, human beings work hard to retain the status quo of their existing beliefs rather than working to examine and challenge them. But, it is this struggle between the existing belief and a new concept that causes intellectual dissonance that can be harnessed to foster and encourage belief change.

A perfect example of the power of cognitive dissonance to transform understanding is driving the current educational philosophy supporting problem based learning. One can find students using a form of this process of confronting genuine doubt when working on authentic, real world problems in a STEM course, for example. Because the problem is new and ill-structured it promotes cognitive dissonance and leads the students toward the feeling of doubt. The students, then, draw on learned and taught skills, concepts, and experiences to "bridge" for a possible solution that meets, challenges, or disputes their beliefs. Cunningham, Schreiber and Moss (2005) define this as inquiry-based learning (p. 183), and it has become a valued mode of instruction in 21st century education that champions collaborative problem solving.

Collaborative problem solving is often fostered through experimentation. Peirce addresses experiments and notes that individuals will use the critical thinking process of inference to institute deduction, induction and abduction and ultimately to resolve doubt

(Cunningham, Schreiber and Moss, 2005, p. 184). These three modes of thinking and inquiry work in conjunction with the three previously described methods of authority and induction, a priori and deduction, and experience and abduction (p. 184-185).

Understanding belief formation is crucial to any exploration of why teachers hold fast to models and systems that may not measure learning and often negatively affect measurement, effort, and student achievement. These deeply rooted feelings are connected at the heart of the teacher's experience and may be linked to the teacher's drive to become an educator. It is Peirce's model then that helps promote the understanding that a synthesis of critical thinking processes work to help an individual form a hypothesis from which a belief may be proven or disproven (Cunningham, Schreiber & Moss, 2005, p. 185). In Peirce's view therefore, a teacher's beliefs about homework would be guided by the teacher's previous desires for success as a student and shaped by the teacher's own experiences finding that success as a student.

This can help to explain why teacher practices and teacher beliefs are often not aligned (Poole-Christian, 2009; p 30; Schmid, 2018). In some ways, researchers have found that the two could be at odds with one another. In other words, the evidence that a teacher may point to from the teacher's own successes may not be accurate or educationally relevant to the teacher's current students. "Modern society is full of examples of disputes that center on the validity of specific beliefs, and where one position is backed up by logical reasoning and scientific evidence, whereas the other is not." (Ståhl, Zaal & Skitka, 2016, p.3). Similarly, a teacher's cultural experiences with homework may not be reflective of the student population with whom the teacher is now working. In fact, people can opt to hold on to whatever their opinion happens to be at the time – a strategy referred to as "tenacity" (Ståhl, Zaal & Skitka 2016, p.3.). As a system, education is not known for its adaptability. It follows that teachers within such a system

have learned to be tenacious in their holding on to existing beliefs. Peirce's model offers a path through which to address this tenacity head on and in doing so, move a teacher, a team, or the system into "genuine doubt" to truly question, investigate, hypothesize and experiment for solutions and a return to a belief equilibrium (Strand & Legg, 2018, p. 3).

Bandura, Self-Efficacy and Motivation

The social learning theory of self-efficacy and the work of Albert Bandura with respect to the fourth mediational process, motivation, must also be considered with respect to belief formation. Bandura (1994) defines self-efficacy as a person's "beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (p. 1). Bandura (1977), expressing the power of self-efficacy, writes that "[n]ot only can perceived self-efficacy have directive influence on choice of activities and settings, but, through expectations of eventual success, it can affect coping efforts once they are initiated. Self-efficacy is not an overall belief, but rather a person's belief about the person's ability to successfully completion of a specific task in a specific situation. Efficacy expectations determine how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences to resolve that task within that situation. For example, a person may have high positive self-efficacy for climbing a ladder or a small hill, but low or negative perceived self-efficacy for climbing a mountain. What makes all the difference is how one feels about the situation and the perception and confidence that one has in successfully completing the task at hand. In the case of this example, most people would be fine with a feeling of low-self efficacy for mountain climbing.

The stronger the perceived self-efficacy and the perceived importance of successful completion for the task at hand, the more active the efforts. Those who persist in subjectively threatening activities that are in fact relatively safe will gain corrective experiences that reinforce their sense of efficacy, thereby eventually eliminating their defensive behavior. Those who cease their coping efforts prematurely will retain their self-debilitating expectations and fears for a long time." (Bandura, 1997, p. 194). A teacher's beliefs are inextricably linked to their perceived self-efficacy for specific teaching tasks or activities and their prior experiences of success in those activities and their established beliefs about their own learning and the learning of students in their classrooms. For example the teacher may have feelings of success with homework as a student and experience in benefitting from completing homework and call on those beliefs to justify the teacher's current homework practice. But, the teacher may not have high perceived efficacy for creating lessons that do not depend on a traditional homework assignment as evidence of the lesson's success. Additionally, Bandura's work explains that the self-efficacious teacher who is confident and persistent in the pursuit of improvement in a particular area gains more positive perceptions of efficacy and is more likely to imbue that confidence in the teacher's students. As Bandura (1990) puts it, the motivation to change one's effort is directly related to the understanding of one's performance, in context and the results those efforts generate (p. 250).

Highly efficacious people attribute their failures to poor personal effort while inefficacious people focus on low aptitude. "People avoid activities and situations that exceed their coping abilities", or that are beyond their perceived self-efficacy in that situation (Bandura, 1994, p. 4). People prefer to work within their givens and do not seek out or readily accept views and ideas that are in conflict with their deeply rooted beliefs. It must be mentioned, however, that as a teacher designs, assigns, and evaluates the homework assigned, the results may be shaped by

a teacher's experiences and expectations rather than valid and reliable data. In this way, homework may show what a teacher *wants* it to show. Moreover, the motivation to continue practices that may not yield educational benefit may be reinforced by those measures—the belief may be further entrenched.

Motivation, then, is affected by social context. Bandura (1990) explains further that in all-or-nothing circumstances what will be adequate effort is clear (whether one can swim, for example). For many, motivation is directly tied to each person's perception of how the individual would like to be compared to others, similarly situated, in relation to performance (p.254). Taken further, a teacher's motivation to change may be significantly impacted by that teacher's perception of a specific role on a specific team and teacher's desire to be effective in the classroom in comparison to the teacher's peers.

Student motivation, too, is affected by social context. In fact, "students with greater motivation or more adaptive motivational beliefs are presumed to engage in academic tasks more readily and put greater and more persistent effort into completing those tasks. Motivation also is used to explain why students with similar levels of ability, skill, or intelligence display different levels of performance" (Wolters, 2011, p. 266). It follows that if the objective of homework is to measure learning and that a student's motivation is connected to the student's desire to know the student's level of performance in relation to prior attempts or in comparison to peers, then teachers must determine what type of assessment should be implemented and the purposes that their grading serves.

A great deal of the struggles teachers experience requires a discernment between research on effective classroom practice and the teacher's beliefs about their own classroom decisions. In fact, "distinguishing knowledge from belief is a daunting undertaking." (Pajares, 1992, p. 309).

Where do beliefs begin? How does one find, establish and maintain a belief? How does one come to accept that a once held and valued belief may not be true—or, as Peirce suggests, how does one recognize and accept genuine doubt and begin to seek the belief equilibrium through a hypothesized solution? (Burgh, Thornton, & Fynes-Clinton, 2018, p. 50-51). Belief formation for teachers is "a special amalgam of content and pedagogy that is uniquely the province of teachers, their own form of professional understanding" (Shulman as cited in Orton, 1996, p.133). Teacher beliefs are generated over years, ratified and reinforced through experiences and then applied with confidence as sound and canonical. Those beliefs feed directly into the teacher's evaluation of what knowledge is accepted, what knowledge is discarded, and how that information is applied in terms of evaluating student learning. In some cases, teacher beliefs are accepted as knowledge, with no distinction between opinion and evidence at all (Orton, 1996, p. 134-135).

Bandura's work supports this effect. Pajares describes Bandura's four sources of experiences as mastery experience, vicarious experience, verbal persuasion and physiological states (Maehr & Pintrich, 1997, p. 21-22). Of the four, Bandura considers mastery experience to be the most powerful, noting that a person reviews his or her actions and the results of those actions, and from those results, beliefs become entrenched. Teachers assigning projects that all students complete and perform well on, for example, could reinforce their belief that independent projects are the best measure of student attainment in their pedagogical positioning (Pajares, 1997, p. 21.). In other words, "in claiming that 'experience is our only teacher,' Peirce's theory strongly aligns with self-efficacy and demonstrates how learning is not only an essential but also an inevitable and frequently disarming aspect of experience (Legg & Strand, 2019, p. 2).

Vicarious experience, while not as potent as mastery experience, also shapes teacher beliefs. Pajares (1997) references Bandura's description as an individual who does not possess personal experience turning to a model, or a respected mentor, in this context, to provide the teacher with context and understanding of an unfamiliar circumstance. (p. 21-22). A young teacher may work with a mentor whom the young teacher respects and ask how that mentor determines the penalty for late assignments. From this mentor's advice, the young teacher adopts a similar stance and applies it going forward, establishing this procedure as a part of the young teacher's larger educational beliefs about the value and weight of homework.

Weaker still is verbal persuasion, but it should not be discounted as ineffective. Persuaders do shape and affect views of individuals through conversations and also though praise and criticism (Pajares, 1997, p. 22). But persuading can only take a person so far. A teacher who chooses to use a similar grading system as a teammate employs may be persuaded to structure an assessment differently to continue the positive feedback, but might drop the practice if it becomes too hard or does not produce continued praise.

Pajares (1997) defines Bandura's fourth source of self-efficacy through the physiological state—the mood or the feeling associated with an action or a situation (p. 22). A teacher may feel fear regarding an upcoming lesson because in past attempts, the lesson has not been successful. The teacher's confidence (or lack of it, in this example) very likely will result in a similar outcome, reinforcing the teacher's belief that this content area and the associated skills with the content are areas of weakness for him or her, and that if possible, the teacher should move quickly past the lesson. Again, the less efficacious a person feels about the situation, the more likely the person will erect structures to avoid altogether.

Collective Efficacy

Collective efficacy is defined as "the group's shared belief in its conjoint capabilities to organize and execute courses of action required to produce given levels of attainments" (Bandura, 1997, p. 477). Collective efficacy beliefs are generated from a metacognitive process in which teams assess the relationship between their competence and the nature of the work with respect to their own current context as a self-efficacious unit (Goddard, Goddard, Kim & Miller, 2015, p. 507).

Especially germane to the current investigation is the role of collective efficacy in relation to Professional Learning Communities (PLCs). A 2016 study of teachers in PLCs considered four factors in the establishment and growth of PLCs in schools. Over 3,700 teachers and nearly 190 principals were administered the *Professional Learning Community Assessment,* with a focus on elementary schools which historically have been more successful in implementing the PLC model. The factors (Enabling School Structures, Collegial Trust, Academic Emphasis and Collective Efficacy) defined and categorized by Gray, Cruse and Tarter (2017) were then measured using "an abridged version of the assessment (PLCA) instrument which was developed by Olivier, Hipp, and Huffman, but revised to form the Professional Learning Community Assessment" (p. 3).

The study (Gray, Cruise & Tarter, 2017) sought to uncover the most significant factor relating to the establishment and successful implementation of Professional Learning Communities. Of the four, Enabling School Structures was most impactful, though each of the four was valuable in the PLC journey. "[E]nabling school structures and the two types of trust are antecedents to the development of a professional learning community" (p. 6). The first and most important foundational step is to have a structure for meetings, discussion, learning and

planning together—and then the team's collective efficacy can be further developed and enhanced. It follows that collective efficacy comes directly from the establishment of a routine and regular system that promotes collaboration and fosters trust.

Current work by John Hattie underscores the effect of collective efficacy on student learning. Donahoo, Hattie and Eells (2018) report that Hattie's study of 1,500 meta-analyses found collective teacher efficacy to be three times more impactful and more accurate as a determinant of student achievement that socioeconomic status (p. 40).

Figure 2.2: Factors Influencing Student Achievement

Influences	**Effect Size**
Collective Teacher Efficacy	1.57
Prior Achievement	.65
Socioeconomic factors	.52
Home environment	.52
Parent involvement	.49
Motivation	.48
Concentration/perseverance/engagement	.48
Homework	.29
Note: Effect sizes are based on Cohen's d. The average effect size is d=0.40. This average summarizes the typical effect of all possible influences.	

Donohoo, Hattie, and Eells (2017, p. 41)

The researchers go further, noting that collective efficacy "more than doubles the effect of prior achievement and more than triples the effect of home environment and parental involvement. It is also greater than three times more predictive of student achievement than student motivation and concentration, persistence, and engagement." (p. 40-41). The structure must come first, but the evidence is clear that collective efficacy's value as a factor in the improvement of student achievement far exceeds many other predictors, and most notably, leaves homework long in its wake.

Weiner and Attribution Theory

Attribution Theory, the seminal work of Bernard Weiner in the area of social psychology, serves as a third lens through which one can consider how beliefs are formed and reinforced. Weiner (1979) explains that when we are successful, we often ascribe those successes to intrinsic factors (uncontrolled-ability; controlled-effort) and extrinsic factors (uncontrolled-task difficulty; controlled-decider bias). Over time, Weiner notes that those who are unsuccessful in change or improvement often develop predetermined expectations of failure, complete with a selection of possible extrinsic causes, rather than reflecting on the more painful and personal reasons for one's performance. Weiner (1979) concludes that "In sum, there are a myriad of perceived causes of achievement events…outcomes frequently depend upon what we can do and how hard we try to do it." (p. 4-6).

Malle (2011) divides attribution into explanations and inferences or ascriptions (p. 70). Taken further, Malle (2011) indicates that explanations deal with the why questions. Inferences and ascriptions refer to behavioral traits and assignation of blame (p. 70). Both require the process of assignation, but it is through explanation that a behavior is assigned to its cause. In contrast, inference requires a quality or attribute be assigned to the agent on the basis of an observed behavior" (p. 72).

Weiner focused his analysis on the emotions of people with respect to success and failure Specifically, Weiner studied the causal relation of stability as complementing externality–internality and showed that people who failed because of lack of effort scored lower than those who failed because of inability (Malle, 2011, p. 74) Weiner (1995) also analyzed other outcomes like loss and illness to evaluate the amount of control those who had experienced loss or illness felt or did not feel (p. 80). Attribution theory also explains the influence of locus of control and

stability. Locus of control can be either internal or external in origin. That is to say, if an individual perceives that something is outside of the person's control, the person does not attribute the results to the person's own actions. For example, if a driver wrecks a car because of an icy road, that driver does not attribute the accident to the person's inability to drive. Stability refers to consistent or inconsistent and the likelihood that the behavior will occur again in the future. Intentionality is the actions that are either self-directed or unpredicted. (Weiner, 1979, p. 6). That is a person can attribute behavior to an intentional action (Michael is an angry person) or an event outside of the person's control (no wonder Michael was upset, because someone stole his car).

Figure 2.3: Causes of Success and Failure, Classified According to Locus, Stability, and Controllability

		Internal			External	
Controllability	Stable		Unstable	Stable		Unstable
Uncontrolled	Ability		Mood	Task Difficulty		Luck
Controlled	Typical Effort		Immediate Effort	Decider Bias		Unusual help from others

A teacher's beliefs regarding homework may be attributed to external and uncontrolled factors such as parent expectations rather than pedagogy for example. Or, a teacher may feel it necessary to assign homework to "balance out" poor test scores, rather than to consider changing instructional practices or examining the validity or reliability of the summative assessment used

during the grading period. In both cases, the locus of control is perceived by the teacher as external, unstable, and uncontrollable. Interestingly these same factors are also present in a teacher with low self-efficacy for these same situations as well.

Investigating Homework through the Lens of Critical Race Theory

Because homework is part of the fabric of traditional American educational practice it stands as part of the status quo making it difficult to imagine what American schools would look like without it;, and, while the intended goal of education in the United States has been to prepare the next generations of American citizens, Anderson (2015) cautions that "the historical record shows that disenfranchisement and the resulting unequal political power has a crippling effect on the pursuit of education equality. When populations are cut off from the instruments of government, they become virtually powerless to influence political and economic decisions affecting educational outcomes." (p. 333). Does homework serve as yet another barrier to those who students who are marginalized in our society and in our schools? The impact of homework on underserved students may have far-reaching effects and this correlation is worth exploring.

To interrogate this connection, several questions become useful. Is there a reason to consider relegating homework to a different role or eliminating it all together, especially when considering factors of the marginalization of student groups by race, socio-economic status, or ability? The literature shows that in most cases, traditional homework practices have not met the needs of underserved students, and have often added to the struggles of minorities to find academic success in the current educational system. To understand the negative impacts that current homework practices might have on student identity, learning, and achievement, Critical

Race Theory (CRT) offers an important lens through which educators might further examine homework's mitigating factors.

Zorn (2018) discussed CRT and education to point out the clear problem in the school system, noting that researchers "set out to explain achievement gaps between students 'of color' and their white peers. Instead, it claimed, structural racism consigns nonwhites to failure. Educators may think they sound enlightened in saying, "I don't see race; I treat all the children the same," but CRT reminds us that avoiding the influence of race means systematically underserving students of color." (p. 203-204). For Zorn, color and poverty are both issues, and one does not exclude the other. Zorn stated that despite efforts to improve diversity in education and to seek new and more accurate means of teaching and assessing students, schools will continue to be "revealed as pervasively racist; curriculum and pedagogy will shortchange and alienate students of color; white teachers will harbor low expectations and crippling biases; equality of opportunity, colorblind merit, and objective assessment will be debunked as cruel phantasms." (p. 204). It is safe to conclude then that the assumption that non-whites and/or those in conditions of poverty find ways to elevate their performances to match white educational expectations ignore obvious cultural and economic differences and result in arguments that are inherently unjust. Moreover, impersonal, irrelevant, and culturally unresponsive instructional examples that do not engage all students leave many diverse or economically disadvantaged students disinterested and disconnected.

Cvencek, Fryberg, Covarrubias and Meltzoff's (2018) studied the self-concepts, self-esteem and academic achievement of 188 American Kindergarten through Fifth Grade students. Their data indicate that while nearly all of students surveyed reported high self-esteem, the "children's developing academic self-concepts and self-esteem emerge within a larger context of

cultural images and depictions about what is possible for themselves and others in their social group (Oyserman & Fryberg, 2006; Oyserman & Markus, 1993). When children's social groups (e.g., race, ethnicity, gender, or social class) are represented negatively or are rarely shown as successful in a domain (e.g., school), then young children may find it difficult to envision themselves belonging or performing well in that domain (Fryberg & Townsend, 2008; Walton & Cohen, 2007)." (p.1099).

Cvencek, Fryberg, Covarrubias and Meltzoff's (2018) study concluded that "minority and majority students may be receiving very different social information about their potential as students and that such messages may shape their academic self-concepts and performance. For example, compared to students in the majority, students in the minority are more likely to encounter negative stereotypes about their ability and intelligence (Cvencek et al., 2015; Steele, 1997), a scarcity of positive academic representations or role models (Covarrubias & Fryberg, 2015; Zirkel, 2002), and teacher bias regarding perceptions of their classroom behavior (Okonofua & Eberhardt, 2015; Yeager et al., 2014). Research shows that children readily "catch" the social biases they observe and incorporate them into their mental framework (Skinner et al., 2017)." (p. 1105). The study's findings show that "narrow and biased messaging in school contexts can contribute to different self-representations in the students and different expectations and reactions by teachers to the behavior of minority versus majority students." (p. 1105). At the outset, students begin their educational paths with positive beliefs about their abilities and their opportunities. However, those beliefs for minority students or those in poverty are affected over time and academic achievement suffers as a result.

Consider that under ideal circumstances, academic failure is possible. Lucio, Hunt and Bornavola (2012) describe twelve factors that lead to academic failure, weigh them, and attempt

to assign a number that represents the "tipping point" for students to fail. The identified factors are: academic engagement, academic expectations, academic self-efficacy, homework completion, school relevance, school safety, teacher relationships (positive relationship), grade retention, school mobility, and school misbehaviors (negative relationship) (p. 18).

Lucio, Hunt and Bornavola (2012) define failure in their study as a GPA of less than 2.0 (p. 18). The authors assert that this failure rate has far ranging and negative impacts on individuals (health, happiness, marital success) and society (unemployment, crime). The study shows that 2 factors results in an 80% likelihood of academic failure for a student. And while nine of the factors are directly tied to GPA, any two factors would be sufficient. The large sample size (nearly 15,000 students) means that the study's results are likely to have a very solid statistical validity. However, Lucio, Hunt and Bornavola also indicate that an area of research not reflected in this article would be the outside factors (socioeconomic) (p. 21).

To investigate the effects of those outside factors, several studies offer data and findings that illuminate the discussion of impact. Nationally, the inequities created by homework are reinforced by the findings in the 2014 Brown Center Report on American Education. The report points to the issue that for the parents of minority and economically disadvantaged students, homework becomes a hurdle for their children that other students are not asked to clear. Marginalized and impoverished parents responded in the 2007 Met-Life Survey that their views on homework were affected by their ability to be present in their child's education—19% of respondents added that they do not believe homework is important. These parents also answered that they believe the amount is too high (39%), the assignments are "busywork" (57%), and that homework negatively impacts the family spending time together (51%) (p. 23-24). For this group of parents, homework is not a tool to communicate with them about what their children are

learning. It is a method of dividing and separating students based on factors that these parents feel are outside of the parents' respective controls (work schedule, availability, ability to support academically, and so on).

Students who are marginalized by their minority status and students in conditions of poverty are at immediate and significant disadvantages that are exacerbated by the educational system as a whole. And, the type of homework that is commonly a envisioned as one-size fits all and requires all students to practice concepts and skills independently, even if the lesson did not get result in all students mastering them. Homework is emblematic of a larger and systemic issue that education has heretofore been unwilling to own, much less admit.

Relevant to the context of an examining Westmoreland County's demographics several factors must be considered. Data show that "in 2013, there were 42.1 times more White Alone residents (342k people) in Westmoreland County, PA than any other race or ethnicity. There were 8.11k Black or African American Alone and 5.26k Two or More Races residents, the second and third most common racial or ethnic groups" (Westmoreland County, 2019). 10.3% all people living in Westmoreland County meet the criteria for poverty, and of those living in poverty in Westmoreland County, 85% are white. By gender, women ages 24-35 living in Westmoreland County are the largest group (Westmoreland County, 2019). The affliction of poverty here is well noted.

In the Southmoreland District, where over 50% of the students are considered to live in conditions of poverty, education becomes an essential element in any effort to break the poverty cycle. When any district knows that many of its students come from homes where circumstances will negatively impact those students' ability to complete assignments away from the supports of the teacher and the school, and still chooses to assign the work and value it, the educators within

that district must question their beliefs. Central to that interrogation are examinations of beliefs about good teaching, student learning, and whether current institutionalized practice is serving or hurting students.

Critical Race Theory

Critical Race Theory (CRT) is the final lens through which this study considers homework. CRT gained prominence in the 1970s and focuses on the inequities caused by the law and its hierarchal nature (Brayboy, 2005, p. 428). CRT examines the inequitable legal and social constructs and their respective impacts on people of color. However, while the theory centers on race and racism, Brayboy (2005) points out that race and racism serve as the intersection for many other forms of subjugation, including poverty and gender (p.428). In terms of the current study, CRT provides a valuable analytical lens since it considers both educational structures and how the barriers created within education serve to separate and alienate underserved students (Brayboy, 2005, p. 428; Ladson-Billings and Tate, 1995, p. 55).

The inequity of poverty, in the context of this study, is especially powerful. Rural systems like Southmoreland may not be diverse in color and culture, but are diverse in the economic disparity between students. Property is central to this tenant of CRT, but specifically, the notion that property is a protected right with systems and laws to support it. Those who have property rights are served by and benefit from the status quo—and by extension, this means the exclusion of those who are not propertied (Ladson-Billings & Tate, 1995, p. 52). Indeed, Ladson and Billings (1995) ask if race is a useful category, noting that strictly limiting the definition of race makes impossible the idea that one can be affected by many negative structures regardless of common views of race—there is no neat way of categorizing someone as a "race" and

encapsulating what the race is and is not (p. 48-49). Ladson and Billings (1995) wonder in their exploration of race as a factor of inequity if these limits are not contributing to the propagation of inequity as a construct, asking, who decides whether one belongs to a race? And does this classification contribute to the stratification of people even as scholars identify the structures that inhibit them? (p. 48-50). Nonetheless, racism is most certainly alive and well in American society (Brayboy, 2005, p. 428-429; Ladson-Billings & Tate, 1995, p. 49).

Examined more closely, the construct of *property* in the educational setting represents an allocation of resources. In Pennsylvania, federal, state and local funding sources combine to provide financial resources to school districts (Long, 2019, p. 7-8). Very little direct funding comes from the national government, but grants for specific supports (Title I, for example, which targets underserved or impoverished school districts) are available for districts that meet the criteria. State contributions currently account for roughly 38% the total funding in Pennsylvania, and local funding attributes nearly 56% of funding (Long, 2019, p. 9). Pennsylvania's educational funding system struggles to equitably serve students, particularly because districts receive uneven revenues (often affected by the imbalance of local and state monies) and districts with greater student needs do not receive comparatively greater resources to meet their students' challenges (Roza & Warco, 2016, p. 22).

Reform efforts advanced by the current Pennsylvania State administration to address the inequities continue, and yet, the issues of property and educational equity remain. Ambiguity exists regarding the Pennsylvania Constitution's requirement to fund education. The statute reads that "The General Assembly shall provide for the maintenance and support of a thorough and efficient system of public education to serve the needs of the Commonwealth," but does not specify the role of the state in doing so, not how an administration should interpret that statute

(Long, 2019, p. 9). The resulting issue becomes how the funding formulas may be manipulated as a political wedge.

Synthesizing Belief, Self-Efficacy, Collective Efficacy, Critical Race Theory and Attribution Theory

Each theoretical lens provides the current study with valuable perspectives through which to launch a critical exploration and analysis of teacher beliefs and actions regarding homework. What follows, is a discussion of the connections among the theories to highlight how they work together to explore the organic nature of teacher actions and beliefs operating within a school culture in real time.

Considering Peirce and Bandura

Peirce's *Authority* (1877, p.8-10) and Bandura's *Vicarious Experience (1963, p. 11-17)* are both built upon the notion that one may create and enhance beliefs through the explicit modeling and counseling of those whom one considers to be an expert or have relevant experiences. Bandura's views on one's predetermined avoidance with regard to new and potentially difficult tasks connects well with Weiner's (1979) approach to external causality for failure and the selection of responses, stable and unstable, that one might select as a defense for low self-efficacy (p. 14).

Considering Weiner and Peirce

Both Weiner and Peirce agree that reflection is critical to the process of genuine doubt. This is certainly true of educators, who must be willing to view their work and the evidence of its ultimate impact on student learning and achievement with both an open mind and the courage to consider the internal locus of control as well as external factors. "In a school setting the search

for understanding often leads to the attributional question of "Why did I succeed or fail?" (Weiner, 1980, p. 4). Is it possible, in a Peircian sense, that for a teacher with a low sense of self-efficacy for designing a lesson or assignment, the answer to why "I" failed might be the attribution of that failure to outside factors like the students don't care, or that the parents are not supportive? Perhaps, a more self-efficacious teacher, willing to entertain genuine doubt and hypothesize possible reasons for and future actions to address a failed assignment or lesson, would focus less on possible external causalities and instead examine with confidence the internal causalities within the teacher's locus of control?

Considering Bandura and Weiner

It stands to reason that the teacher would draw on past successful performances that in turn work to produce what Bandura (1997, p. 25) termed mastery experience to lead to improved self-efficacy. A teacher with strong positive self-efficacy for a task is more likely to take a risk, seek improvement, and conclude that classroom actions that yield improvement lie within the teacher's control.

It is crucial to understand that a confounding variable is that it is human to reflect more on failure that success. In fact Weiner (1980) reminds us that, "this search (for why) is more likely given failure (rejection) than success (acceptance)" (p.4). Additionally, there is no cause to question one's beliefs, in Peircean thinking, when the result is positive (Bandura's self-efficacy) and attributed to personal success that is within our control (Weiner's Attribution Theory).

Taken further, a teacher who selects measures that reflect positively (regardless of the validity of the measure or the reliability of the results) does not consider the call to improvement. There is no sense of urgency. The teacher has created a self-efficacious, internally stable and

controlled outcome that feeds the belief that the assignment given for homework produces evidence of learning. Why change?

This belief supports the stance of status quo for many teachers even in the face of evidence and research—the teacher is comfortable and confident in the results because the results match the teacher's beliefs that he or she has adequately taught and measured the learning.

Considering Critical Race Theory and Peirce

The intersection between Critical Race Theory and Peircean logic may be found where education and systemic oppression converge. Peirce wrote on inquiry learning nearly 150 years ago, and yet, perceptions of how students learn best are often anchored in rote memorization and regurgitation. Again, looking back though our history, the response when the perception of American superiority in education is challenged is to ramp up work products. More evidence. But what type of evidence is chosen as the standard?

Peirce (1889) begins his piece on the first rule of logic by establishing that above all, nothing must be allowed to block the path of inquiry in learning (p. 48). CRT establishes that for underserved populations, intentional educational and social roadblocks are established and bolstered by those for whom the status quo is needed to keep the order in place and the system performing as it is intended, even as it appears invisible to the casual observer (Brayboy, 2006, p. 428). The marginalized, then, who are seeking to learn and improve are often met with barriers to the most important components of education—equitable access and freedom to learn through inquiry.

Traditional systems of education center on meritocracy. When examined through the lens of Critical Race Theory, the educational system shows its inherent bias and unrealistic

expectations for overcoming difficult circumstances to transcend one's station. Brayboy explains that when attempts to correct clear and indefensible roadblocks to access the best opportunities to learn were seen in the binary (e.g., black and white, in Brown vs. Board of Education), those attempts failed to specifically address the many other underserved and marginalized people struggling with the same barriers (2006, p. 428-429).

The ideas of meritocracy within a deeply institutionalized system such as public education exacerbates learned helplessness of those struggling within the system. For those who have been consistently denied their rights, it becomes difficult to reach a state of genuine doubt regarding one's plight. How can one question the system when the system is all that one knows? How does one begin to reconsider one's beliefs as part of the problem when one is systematically denied access to opportunities to learn and improve?

Considering Critical Race Theory and Bandura

Bandura's writings on self-efficacy demonstrate the importance of goal setting and an individual's confidence in the skills, experience and knowledge needed to achieve those goals. Naturally one feels more efficacious about goals and work based in areas of perceived experience and success, but often those previous successes can translate into confidence patterns for new ideas and concepts. One begins to believe that he or she can apply those previous lessons to unknown problems and to learn from setbacks rather than be derailed by them (Bandura, 1993, p. 119).

Consider the example of the study of literature in American schools. The canon in American literature is populated with mostly white male writers. It has only been within the last several decades that the work of women authors and authors of color and diverse nationalities have been accepted into the canon and taught. Still, those new works are greatly outnumbered

by the selected work of white men (Brayboy, 2005, p. 430). It is difficult for marginalized students to connect with this work. Indeed, few American students today can read Huck Finn and make connections with the character as the setting and context play significant roles in the storytelling. For students in the 21st century, stories about the antebellum South and rafting on the Mississippi River lack the engaging and requisite historical perspectives that draw the readers in and allow readers to consider the full weight of the author's intended theme, meaning and purpose. If understanding one's place in the world through literature is a skill of importance, does it not follow that the stories allow for the reader to find common ground with the characters?

Considering Critical Race Theory and Weiner

Attribution Theory in education is grounded upon what Weiner (1979) describes as "why" questions. Why did I do poorly on that test? Why is everyone else getting better grades? Weiner notes that "in attempting to explain the prior success or failure at an achievement related event, the individual assesses his or her level of ability, the amount of effort that was expended, the difficulty of the task, and the magnitude and direction of experienced luck" (p. 4).

Weiner's (1979) theory details failures as often connected to external factors. Those external factors are brought into starker comparison when examined through CRT., Ladson-Billings and Tate (1995) point to the work of Carter Woodson (1916) who quoted described education for two classes in this way, "the same educational process which inspires and stimulates the oppressor with the thought that he is everything and has accomplished everything worthwhile, depresses and crushes at the same time the spark of genius in the Negro by making him feel that his race does not amount to much and never will measure up to the standards of other peoples" (p. 50). Therefore, Attribution Theory, as applied to the context of the impact of

homework might, yields for a white student or a student of average socio-economic status in the system a feeling of intrinsic motivation and an enrichment of self-efficacy, while an African-American student or a student impacted by conditions of poverty who is not meeting success in that biased system loses a sense of self-efficacy and resigns herself to the extrinsic factors in relation to her experiences of failure in the system. This, in turn, affects her motivation to learn through inquiry, and ultimately, may result in her resignation that education will not provide the options for success and growth that are touted in the American social construct.

Moreover, consider that for many minority and underserved students of color, those who are evaluating their work are not teachers of color. And for students living in conditions of poverty the teachers who are evaluating their work are earning salaries well above the poverty level. These white and middle class teachers' beliefs about learning and education have been reinforced by their experiences and they project those same expectations on students who do not share the same opportunities inside or outside of the classroom. The disconnect grows wider.

In summary, beliefs, learned experiences from success, failures, direct and indirect instruction and modeling, and experimental solutions become the foundational bases for reflective, confident teachers who will seek to improve rather than change. These highly efficacious teachers will more frequently consider the abandonment of old beliefs. They will accept when presented with data as evidence, consult research on learning and pedagogy, and seek support from others. Indeed, letting go of old practices, as much as one loved them, in favor of better and more valid educational models, is the work of confident, successful, student-centered educators.

Belief Transformation and Genuine Doubt

Teacher beliefs about teaching and learning are at the heart of any exploration of any instructional practices in general, and the practice of designing, assigning, and grading homework, in particular. Schmid (2018) points out that highly efficacious teachers can have dramatic impacts on low performing students and underperforming schools (p. 2). Despite strong research in the areas of "teacher preparation and certification (Kukla-Acevedo, 2009; Rice, 2003; Wayne & Youngs, 2003)…and effective practices (Marzano, Pickering & Pollock, 2001; Moser and Tresch, 2003)," Schmid (2018) writes that the subject of teacher beliefs is still not widely researched (p. 3). Belief formation is a critical component in the understanding of why these educational systems persist even as the world and our society change and evolve. For the purposes of this study, beliefs are defined using Peirce's model (1877) of guiding one's desires and shaping ones actions. This framework provides a way to address Pajares' (1992) problems with research on teacher beliefs, as Pajares (1992) asserts that while there is ample research on teacher thinking, how that can be applied to explaining teacher behaviors and beliefs requires deeper consideration and exploration. (p. 307).

Recently, researchers have begun to explore teacher beliefs and to incorporate belief and self-efficacy into teacher preparation programming. Peterson and Moss (2006) write that "[u]nderstanding the powerful role of teacher beliefs requires us to move beyond conceptions that teacher education should actively work to change the beliefs that pre-service teachers hold. This position assumes that pre-service teachers are aware of the beliefs that they hold, and that the beliefs that they hold have no utility." (p. 5). In other words, the researchers caution that pre-service teachers' beliefs teachers should not be discounted without consideration of the origins and foundations of those beliefs (p. 5-6).

Instead, Peterson and Moss (2006) propose that the "goal, therefore, is not to teach students what to believe or even necessarily to convince them they must change the beliefs that they hold; rather our goal is to help them learn how to recognize, uncover and challenge their beliefs through the lenses of theory and research." (p. 7). This approach to educational preparation does not ask the new teacher to abandon old beliefs without question, but rather teaches them to reflect upon their current beliefs with a more critical lens to determine through inquiry and research whether or not those beliefs are rooted in research and theoretical educational practices that lead to student understanding.

To change one's beliefs is to open the door to the possibility that all decisions one has made to this point in reference to those entrenched and accepted truths may have been made on faulty, incomplete or incorrect information. For anyone, in any circumstance, this is a difficult and potentially life-changing process. In the field of education, which is not known for expedited change but is given over to superficial and transient initiatives, questioning the long-believed and dogmatic tenants of teaching and learning is constant—and yet, the tenants often remain.

Consider, too, that often an education student is drawn to the field not by new and progressive pedagogy, but by Peirce's *authority (1877)* and Bandura's *vicarious experience (1963)*. Consider also that for a veteran teacher, *if* one's own educational experiences, reinforced by pedagogy and modeling and supported by one's perceived positive results are challenged by new beliefs and models, the resulting dissonance will cause two likely outcomes; denial or genuine doubt.

Burgh, Thornton and Fynes-Clinton (2018) detail Peirce's methods of movement from genuine doubt into belief, writing, "Peirce makes the connection between learning and the desire to learn, which is necessitated by dissatisfaction with beliefs or uncertainty; a felt experience he

called genuine doubt. He proposed four methods by which people move from genuine doubt to belief: tenacity, a priori, authority, and experimentation. The first three methods all resolve doubt and fixate belief by opinion, but do so by blocking inquiry. In contrast, experimentation is an inquiry process of collecting observations and generating hypotheses to account for these observations to reach a conclusion based upon an inferential process." (p. 49). Strand and Legg (2018) write that "as teachers need to have confidence in the subject matter that they teach and trust in the ways they choose to teach it, they may overvalue the security of their beliefs. Consequently, the attitudes of teachers is risky as it may not allow the Peirce concept of genuine doubt" (p. 3).

By blocking inquiry, one can protect those beliefs and defend them without the fear and discomfort of leaving what has been the accepted reality for him or her. However, with experimentation, Peirce establishes that to begin, one must be willing to accept that there is a possibility that those beliefs and positions could be wrong. This willingness to suspend the beliefs and to work through the learning process signals genuine doubt, and a self-efficacious teacher.

Tam and Chan (2016) assert that teachers likely draw inspiration for their homework designs from their beliefs and views on the purpose and nature of the content (p. 27). Perhaps the reason for the reluctance to change beliefs comes from the significance of the relationships that the teachers had with their teachers when they themselves were students in school. The formation of those beliefs begins at an early age, and with those initial experiences of success, the young student may attribute his or her achievement to task-oriented activities and not to more authentic, reliable and valid measures of learning. The teacher's reinforcing of success through tasks and timeliness can be misinterpreted by students to mean that if the tasks are completed on

time and correctly that learning has occurred and that the students have grown academically. For the purpose of this work, significance of relationships is defined as the connection, positive or negative, between teacher and student that impacts a student's educational experience.

This positive experience strengthens the case for the significance of relationships through reciprocal reinforcement between teacher and student. For example, a teacher assigns ten definitions to be copied and written by the students for collection tomorrow for ten points. The student returns the assignment fully completed, and the teacher awards the points to the student. Both the student and teacher may feel successful—the student in that he or she has completed the task and earned the points, and the teacher in that he or she has evidence that the student has demonstrated that the definitions have been learned. But is this completion of the assignment truly a reflection of learning?

Moreover, research indicates that strong personal relationships between teachers and students do improve student achievement. Naturally, the leap from positive relationships to data supporting learning is not an easy one, and yet it is the leap many teachers make. A well-liked educator can influence students in many good ways—but that does not necessarily include learning at high levels or learning for mastery. Often, though, these significant relationships have a profound effect on the student's views on school, self-efficacy, and in some cases, leads the student to choose education as a profession in adulthood.

The Work of Professional Learning Communities

In 1984, noted education reform scholar John Goodlad wrote in his book *A Place Called School* that traditional school models forced individual teachers to make individual decisions about how to teach, what to teach, how to assess and what to report with little or no input from

peers (DuFour, 2015, p. 121). The structure of independent, autonomous teachers working in isolation and without the benefit of support from peers was the standard for schools across the United States, and the resulting criticisms in the 1980s, 1990s and into the 21st century regarding America's slipping numbers on the world educational rankings redirected the country's attention on education and reforming the system to meet the needs of the next generations of learners (DuFour, 2015, p. 122-124). President George W. Bush's reform plan, No Child Left Behind, specifically designed to respond to the data, did more to divide and separate teachers since it used individual consequence and arbitrary rating systems to drive improvement. Predictably, it forced teachers and schools to focus more on high stakes testing results and less on improvement through collective inquiry and collective efficacy (DuFour et al, 2015, p. 14-20).

Professional Learning Communities (PLC) takes an opposite approach to school improvement. Though others had been describing the components, Newmann and Wehlage (1995) organized the research, supported their findings using a wealth of data, and called the new model "professional learning communities" (p. 29). PLCs focus on a team of teachers' ability to study, evaluate, apply and revise content, lessons and assessments as a unit rather than as individuals provide equity of access and service—what the teams refer to as the "guaranteed and viable curriculum" for all children (DuFour, DuFour, Eaker & Karhanek, 2010, p. 1). The building of the team's collective efficacy stems from the work the team does together. The team members must consider the strengths and concerns of their work, from the essential outcomes to the summative assessment, and then consider the results to determine the effectiveness of the outcomes, the instruction and the measures of student learning. In this way, the new model framing PLCs provides the structure and professional development needed to truly improve student achievement.

Prior to proposing the model for PLCs, Newmann and Welhage (1995) conducted a synthesis of five studies from 1990 to 1995 using the following data: (1) the School Restructuring Study (SRS), an examination of 24 significantly restructured schools; (2) the National Educational Longitudinal Study of 1988 (NELS: 88), a nationally representative sample of over 10,000 students from grades 8 through 12; (3) the Study of Chicago School Reform, an analysis of survey data from 8,000 teachers and principals in 400 elementary and 40 high schools from 1990-94; and (4) the Longitudinal Study of School Restructuring, 4-year case studies of 8 schools. (p. 5). In their recommendations, Newmann and Welhage (1995) conclude that four elements are needed to implement a successful restructuring: 1) a focus on student learning; 2) authentic pedagogy, or high quality instruction for every student; 3) school organizational capacity, which refers to how a school builds time into the school day for teacher collaboration; and 4) external supports from community and families (p. 10). Their findings reflected that in schools where these four elements were in place, student performance on the NELS:88 and the SRS was significantly higher than those schools that were organized without collaborative time for planning. On the SRS, for example, schools that had reported having professional communities scored 27% higher on the authentic math and social studies measures than those schools without the structure (p. 39).

Considering the connection between PLCs and teacher efficacy and collective teacher efficacy brings particular focus to the importance of the learning that takes place among the team members themselves. In team meetings, for example, Bandura's vicarious experience is a powerful tool for belief formation and affirmation, but it can also be a place in which highly efficacious teams question those beliefs and allow themselves to enter into genuine doubt. Trust is at the heart of this model. In fact, Bandura (1982) noted that teacher collaboration "constitutes

a key form of enactive experience in schools, which social cognitive theory positions as critical to the development of the professional capabilities about which efficacy beliefs refer." (as cited in Goddard, Goddard, Eun, Sook, & Miller, 2015, p. 503).

It follows then that "if teachers are self-efficacious, they will be more likely to plan appropriate activities, persist with students who are having difficulties, and expend considerable effort to find appropriate teaching materials. In turn, the teachers will exhibit good job performance and probably remain committed to their work. In addition, teachers who report high self-efficacy are more likely to overcome situations that challenge their capability to teach." (Ware & Kitsantas, 2007, p. 303). The collective Peircean authority that provides the substance that genuine doubt craves comes not from one mentor or respected veteran teacher, but rather from each teacher on the team, who may in his or her own manner, offer best practices, anecdotes, and his or her own skill to the overall objective of guaranteed and viable curriculum and high quality learning for all students.

Using a structures teaming approach, the collective efficacy of a team can be established and strengthened. Smith, Ralston and Naegle (2016) identify several hallmarks of successful Professional Learning Communities, including making connections between adults collaborating and students learning; stablishing a clear purpose/shared focus that is compelling to the group members; drawing on exemplary outside resources relevant to the PLC focus; using a cycle of planning, acting, and reviewing the results tied directly to the PLC focus; providing adequate time to do the work; and support from building and district administration (p. 3). Creating trust among teachers, which happens within professional communities, may be more significant in stimulating change in practice than does having a trusting relationship with the principal" (Gray and Summers, 2015, p. 64). Gray and Summers (2015) conclude that "trust in the principal has

an indirect effect on teacher practice, while trust in colleagues may directly influence classroom practice as teachers collaborate and share instructional strategies" (p. 64).

The Principal and Changing Beliefs

In every attempt to improve a system or strategy, much depends upon the commitment of those tasked with leading the improvement. The principal plays an important role in both designing and uncovering conditions in the school's culture and practices that may lead to belief transformation. The principal can investigate these conditions through working with teams and ultimately with individual teachers. It is often said that what is valued and monitored by the principal gets done by within the school. It stands to reason, therefore, that "the more that principals serve as instructional leaders with detailed knowledge of classroom practice, the more likely are teachers to engage in collaborative interactions designed to improve instruction and facilitate group goal attainment. School leaders may serve as a catalyst for teacher collaboration. Leaders are crucial in providing support for collaboration's significant time commitments. Further, leader knowledge of effective instructional practices is important." (Goddard, Goddard, Kim & Miller, 2015, p. 503).

In Goddard, Goddard, Kim and Miller's 2015 study of principal leadership, they found that in previous research, the measures proved that principal impact on achievement could be attributed to the principal's impact on teacher efficacy and school climate rather than directly impacting student engagement, writing that "Hallinger and colleagues (1996) found that principals had indirect effects on school effectiveness through their influence on the school learning climate. They suggest that researchers should consider mediating factors when examining the impact of principals on student achievement. Witziers and colleagues (2003)

found small, direct effects of elementary school principal leadership on achievement but no such effects at the secondary school level." (p. 505). Goddard, Goddard, Kim and Miller (2015) acknowledge the importance of principal leadership, adding that "none of these studies directly considered whether principal leadership was related to teachers' collective work…this is an important connection to interrogate, given that research on principal leadership indicates the importance of encouraging teachers to work together actively toward instructional improvement. (p. 505).

The principal's role as leader must be more than simply constructing a schedule for collaboration and providing tools to produce work products. At the core of the principalship, and perhaps in all leadership positions, the leader must show a commitment to the process, to the goals and must be driven to improve. The true and valid measure of a school's collective efficacy can be found in the ability of the school, to a member, to both know and explain the mission of the school, to know and explain the ways in which the school will reach those goals, and to know and enact a cohesive, collaborative, data-driven plan to address the fundamental objectives of student learning and success. For this to occur, a principal must be committed and engaged at every level.

Smith, Ralston and Naegle (2016) warn prospective principal leaders to be on guard for implementation fatigue, positing that with many initiatives, teachers feel that cannot do any of them well and cannot determine which of the plans is most important (p. 5) is. Leaders must be more vigilant in focusing on the right work and not clouding team goals and visions with too many directives and processes. In the movie *Hoosiers*, assistant coach Shooter reminds the players before the last play of a basketball game to stay focused after the last shot…or in Shooter's words, "Don't get caught watching the paint dry!"

It is easy to become distracted and to lose focus on the results. It is also easy to understand how a teacher, or indeed a school, can be overtaxed by too many initiatives and simply resort to what is comfortable and known. Returning to the plan, reviewing progress, making adjustments…these are often not the exciting or revelatory discoveries that fuel the actions of principals, teams and schools. It is the principal's job to ensure that the goals and mission stay at the fore of all decisions and that every team members is supported, but also held accountable, for the successes and the setback that come with improvement.

Finally, any examination of the principal's role in school practices and belief transformation must end with the caveat that no outsider can change the beliefs of others. Belief transformation requires genuine doubt on the part of the person holding that belief (Peterson, Schreiber & Moss, 2011, p. 39). What principals can do, however, is to design opportunities where conditions challenge the beliefs educators hold—the beliefs of the teachers, the staff, and the principal as well.

Chapter 3

Methods

The subject of homework in the elementary school is not new and has been discussed throughout my tenure…and yet, the questions regarding purpose and value persist. The practices continue to be at the discretion of each teacher. The type of homework, the amounts assigned, and the impact on student learning against the reflected scores are as varied as the teachers themselves. The beliefs of each teacher heavily influence those variables. And because there is no understanding of homework collectively, the data are difficult to evaluate.

Homework practices at Southmoreland Elementary School are at odds with the team-oriented, systemic and collectively valued models for instruction, pacing, and assessing. It seems as if homework has been given an exemption from the teaming cycle—under the guise of "the art" of teaching. So much of what the teams decide with respect to the essential outcomes, the formative and summative measures teams review when reflecting on the collective performance of students on a skill, the norms teams agree to follow and the mapping of the curriculum to ensure the essential outcomes are taught and assessed uniformly is left out of the homework component. It has been, by and large, the domain of the individual in a system built on the collective efficacy of the team.

We know this. We recognize this. We have talked about it in the past. And yet, nothing has changed.

Context Reframed By an Act of God

The study was originally designed to understand the beliefs teachers held regarding homework in the context of a normal school landscape. That landscape changed dramatically when schools were closed due to the impact of the Coronavirus.

On Friday, March 13, 2020, the Governor of the Commonwealth of Pennsylvania directed that all schools close as a precaution against the spread of COVID 19. The timing of this closure is contextually important. By that Friday, the state of Maryland had already closed schools indefinitely. Discussions of how and when schools in our region might be closed were occurring, but the speed and the certainty of the statewide March 13, 2020 closure directive meant that for teachers in the district, distance learning would begin with no formal training, no common procedure, and limited resources from the outset. For teachers in our schools, the week following the closure announcement was a time of zoom meetings, Google searches and worry. For students, it meant that for a brief time, there was no instruction, but when learning began again in earnest, it was significantly different from what they knew as "school".

Until the schools closed, extant data were gathered from the first three nine-week periods. These data reflect a mindset based on normal school life pre-Covid 19 closure, where homework was generally collected and evaluated for formative assessment and instructional planning. When the schools were closed, however, the purpose changed. It is important to note that with the enforced closure, everything, in effect, became homework. The third grade team recognized this and spoke to the teaming structure as a critical element for them to address questions of quality instruction and assessment in the distance-learning model. The team asked questions like, "What happens to the student who was successful in the brick and mortar school but isn't making the jump to distance learning?" and "How do we ensure that we are measuring student learning?"

There was much to consider and discuss and the team approached at the fourth nine weeks differently in relation to how they would assign and collect homework the value they would place on those elements.

After the closure of school, the team continued to meet and work as a professional learning community through Zoom meetings to plan and assign homework. Southmoreland School District is a Google school system, so each teacher established a Google classroom. Three pairs of teachers (one teacher for English/Language Arts and one teacher for Mathematics) worked together in those zoom meetings to ensure that all students would be completing the same activities and assignments.

It is also critical to note the impact of district level messages to the teachers in the study regarding the design and delivery of instruction at distance. The district administration agreed that elementary level instruction should focus on experiential learning and practice rather than the delivery of new content. Students in grades three, four and five would only be given a "Pass" or "Fail" grade for the last quarter after the initial two week closure. This guidance regarding what teachers should plan for and collect is an important component of the study, as the team needed to frame the plan around those clear expectations of experiential learning and practice.

This decision was made when administrators and teachers alike were told that the shutdown would last approximately 14 to 30 days. In their decision making process, the district administrative team considered the difficulty of the closure and its impact on families. For some students, technology was a barrier. For others, connectivity was the issue.

Perhaps most important to consider in this early phase of the distance learning experience was the challenge to our youngest students to work independently. The administrators acknowledged that expectations for early elementary students to be self-guided or self-directed in

their learning when they are still building foundational skills was simply not reasonable or responsible. Unfortunately, the burden, then, to support young students learning at distance fell heavily on the families, many of whom were struggling with the effects of the pandemic at all levels—health concerns, work, food availability, financial impacts, just to name a few.

The changed conditions of the study and the impact of those conditions influenced the way data were collected and analyzed.

Research Questions

This study was designed to address the following research questions:

1. What are the beliefs of third grade teachers in the Southmoreland Elementary School regarding the effectiveness of their homework practices?

2. Are those beliefs impacted by their critical reflection on the characteristics of effective homework practices?

3. *Are their beliefs impacted by their critical reflection on and self-evaluation of their own homework practices?*

Purpose of the Study

This study provides a more accurate picture student academic needs and allow a more relevant response by both administrators and teams of teachers. Examinations of what teachers and administrators count as evidence of student learning and achievement warrants a careful study of homework; especially since it is often graded and used as justification for decisions about which students understand and which do not. How can a teacher be confident that work done away from the teacher is work done by the student? Is homework truly reflective of a student's current academic understanding? Is the homework providing additional practice or hardening bad habits?

This study will describe the beliefs of teachers individually and as a team, so that as a school system, we can begin the work of making an evidence-based policy regarding what homework is, what it is designed to show, how it is valued by teachers and how students view the work as well.

Recruitment of Participants

The study focused on the third grade level in the Southmoreland Elementary School. This team was chosen because they have been successful on the Pennsylvania System of State Assessments; there are six teachers (five female teachers and one male teacher), and of those six, three are graduates of Southmoreland School District.

The team had been preparing to review current procedures and has identified homework as a concern prior to the study. This made them a strong choice for the study.

Data Collection

Data for the study was collected from several sources in order to address the research questions. The first data source emerged from the crafting, refining, and assessing of a list of characteristics (criteria) that describe the elements of effective homework assignments, tasks, and practices. These questions were administered through Google Classroom and collected for coding. These responses were shared with the team and used as a lens through which the team examined their beliefs against what their homework actually reflects with respect to student learning. The second source was collected from the 3rd grade team as the team responded to three open ended questions regarding beliefs about homework. Teachers were also asked to upload an example of an effective homework assignment and identified the characteristics of the

assignment that make it effective. The teachers then stated the evidence they gathered from what the students did/learned that from the assignment that justified their conclusions about its effectiveness. This data sources addressed research question one: *What are the beliefs of third grade teachers in the Southmoreland Elementary School regarding the effectiveness of their homework practices?*

Weekly reflections on their homework practices were submitted via Google Classroom. The third data source addressed research questions two and three:

2. Are those beliefs impacted by their critical reflection on the characteristics of effective homework practices?

3. Are their beliefs impacted by their critical reflection on and self-evaluation of their own homework practices?

A fourth data source was a final summary reflection that the teachers submitted to the online platform. The team completed a final analysis of what they learned and how their new learning has shaped their homework practices. This fourth data source addressed research questions two and three:

2. Are those beliefs impacted by their critical reflection on the characteristics of effective homework practices?

3. Are their beliefs impacted by their critical reflection on and their self-evaluation of their own homework practices?

The study employed the four phases of data collection illustrated below:

Phase 1/Baseline Teacher Critical Reflection on Homework Practices: Teachers responded to the prompts and procedures in Instrument 1.

Phase 2/Design, Refine, Improve List of the Characteristics of Effective Homework: Using the online platform, teachers shared one example of homework, uploaded the homework assignment, and responded to prompts regarding the assignment regarding its effectiveness.

Phase 3/Critical Reflections on the Past Week's Homework Assignments: Responding to the prompts in **Instrument Three**, teachers created a critical reflection weekly on line that focused on their own homework decisions, practices, and impacts.

Phase 4/Final Summary Critical Reflection: At the close of the study, teachers created a summary critical reflection by responding to the prompts in **Instrument Four**.

Instruments

Four instruments were employed to collect new data for phases 2 through 4 of the study.

Instrument 1: Through the online platform, teachers created, edited, and improved a list of the characteristics of effective homework assignments based on their research and self-study. The successive lists of criteria will enable the researcher to further develop a portrait of the team's collective and individual beliefs about homework before, during, and after the team's exploration of the criteria for effective homework during the Professional Learning Community experiences.

Instrument 2: An open-ended questionnaire and directions to provide an example of an effective homework assignment task will sent to the team to respond to online.

The following open-ended prompts and procedures were posed to the teachers:

1. Upload an example of one of your most effective homework assignments/tasks.

2. Describe the elements or characteristics that make this homework assignment/task effective.

3. What is the evidence that you collected from the students who completed this assignment/task that supports your conclusion that this is an example of effective homework?

Instrument 3: Weekly through the course of the study, the teachers were asked to reflect on their homework planning decisions for the past week (using an online form) using the following prompts and questions.

When you were thinking about the lessons you planned and taught for the past week, how you made the following decisions regarding designing homework assignments/tasks:

1. Which lessons were paired with a homework assignment and why?

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson?

3. What did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching?

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson?

Instrument 4: At the close of the study, the teachers completed an online summary critical reflection of the project guided by the following prompts:

1. Describe the steps have you taken to increase the effectiveness of the homework you assign to your students. Provide specific examples to illustrate your points.

2. Describe how your homework practices changed to make them more effective. Provide specific examples.

Data Analysis Methods

This study employed the general interpretive process of close reading to analyze all qualitative data sources. The close reading process involves identifying patterns of thinking and acting in order to discover regularities and uncover anomalies (Miles, Huberman, & Saldana 2014). Because of the nature of the text collected in the open ended responses to the survey questions, this might involve thematic coding categories that would be analyzable by writing propositions about meaning and criteria for including selections of text into those themes. Several passes were taken through the data to test the trustworthiness of information. Using the emerging themes (Gibbs, 2007) culled through constant comparative analysis, the researcher examined the beliefs that the 3rd grade teachers currently hold regarding homework.

Ultimately, by analyzing personal responses of the third grade teachers to questions regarding their homework practices (Phase I), this study sought to understand the beliefs and assumptions that contribute to the current 3rd grade homework culture.

Chapter 4

Description of Findings

The study was designed to examine the beliefs of a team of elementary teachers regarding homework. The context of the study changed drastically with the realities of COVID-19 and the closure of schools at the end of the 2020 academic year. Students, teachers, administrators, families, and the communities experienced learning and teaching at distance. These experiences impacted both the ways teachers framed and designed instruction, and the ways that students engaged with assignments.

The following discussion of the findings is organized to reflect the nature of the data set in question—when and how the data were gathered and the impact of that context on the analysis of the data themselves.

It is important to note that the beginning of the study opened the week after the closure. As the teachers were then separated, responses that had been written individually were later composed as teams. The specialists (Teacher RS and Teacher LS) did not participate in Instrument 1 but did respond to the prompts in Instruments 2, 3 and 4.

Figure 4.1 frames the discussions of the data analyses included in this chapter. The figure maps the analyses by instrument and research question, notes the questions/prompts/directions that comprised each instrument, and indicates the team members whose data are contained in the analysis. All data were collected through Google Classroom. The Research Questions (RQ) are represented in the figure according to the following sequence:

Research Questions

1. What are the beliefs of third grade teachers in the Southmoreland Elementary School regarding the effectiveness of their homework practices?

2. Are those beliefs impacted by their critical reflection on the characteristics of effective homework practices?

3. Are their beliefs impacted by their critical reflection on and self-evaluation of their own homework practices?

Figure 4.1: Description Map of Datasets

Instrument	RQ	Prompt	Respondents
1	1	Type into the columns below the words you associate with the characteristics of a good assignment.	ELA Team and Math Team
2	1, 2	1. Upload an example of one of your most effective homework assignments/tasks. 2. Describe the elements or characteristics that make this homework assignment/task effective. What is the evidence that you collected from the students who completed this assignment/task that supports your conclusion that this is an example of effective homework?	E-1, M-2, M-3, RS and LS
3	1, 2 & 3	When you were thinking about the lessons you planned and taught for the past week, how did you make the following decisions regarding designing homework assignments/tasks: 1. Which lessons were paired with a homework assignment and why? 1. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? 2. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? 3. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective,	M-1, M-2, M-3, E-1, E-2, E-3, LS, RS, ELA team and Math Team

		how would you replace/change/refine it for the next time you teach that lesson?	
4	2 & 3	1. Describe the steps have you taken to increase the effectiveness of the homework you assign to your students. Provide specific examples to illustrate your points. 2. Describe how your homework practices changed to make them more effective. Provide specific examples.	ELA team and Math team

Each dataset was analyzed and viewed through the four theoretical frames (Belief and Genuine Doubt, Attribution Theory, Critical Race Theory and Collective Efficacy). These theoretical lenses enabled the researcher to critically examine the teacher participant's journey in providing instruction and evaluating student learning in an unprecedented context that began during a normal school year and quickly shifted to uncharted territory during the 2020 pandemic.

Data Analysis from Instrument 1:

Instrument one was designed to address the first research question:

What are the beliefs of third grade teachers in the Southmoreland Elementary School regarding the effectiveness of their homework practices?

During the team's first activity (Instrument 1), the teachers were asked to work together using a Google Sheet to reach consensus on the characteristics of a good homework assignment. This activity and the data it produced happened before the district went online for COVID-19. The participants met face-to-face in two content area groups, ELA and Math. Each group of teachers developed a list of the characteristics of effective homework (See Figure 4.2).

Figure 4.2: Team Descriptions of the Characteristics of a Good Homework Assignment

Descriptors from the 3rd Grade ELA Team	Descriptors from the 3rd Grade Math Team
• Independent practice of classwork • Connection/reinforcement with family • Reflective for student and teacher • Review before test • Guides interventions and enrichment for individual instruction opportunities • Promotes the importance of deadlines for future career responsibilities • Preparation for new learning • Builds proficiency in new skills and maintains previously learned ones • Develops creativity and problem-solving	• Engaging • Is challenging and avoids mindless regurgitation • Timely • Has a clear purpose and is meaningful • Appropriate and directly relates to lesson objectives • Builds motivation • Ask students to show evidence, reasons, or to support • Provides appropriate examples (and non-examples) • Avoids wording in the instructions and examples that might confound students

The analysis of each content teams' descriptors provides insight into the beliefs of they expressed regarding the purpose and value of homework. It is critical to note again that these descriptors were co-created while school was still happening face-to-face and homework was what students did at home after an in-school lesson.

Figure 4.2 displays the lists side by side to aid in both analysis and comparative analysis. The characteristics identified by the two groups, English Language Arts and Math, differed in meaningful ways from each other. The ELA team concentrated their descriptions on the purpose for an assignment (e.g., *make a connection with the family; prepare for upcoming learning opportunities*). Those purposes included areas that went well beyond the classroom lesson to which the assignment was tied (e.g., *future work ethic; enrichment; and, the development of creativity*).

The Math teachers described specific attributes of the assignment's design (e.g., *clearly worded; asks students to provide evidence for their responses*) and their list of characteristics appears to focus on advancing the learning goals of the lesson for which it is designed. Because the list is specific and tightly lashed to the lesson, it provides clearer criteria for assessing the potential for the assignment to promote lesson level learning goals. The descriptors could be used to focus assignment design and weigh the potential impact of the assignment's ability to deepen student understanding. Most of Math Team's descriptors are specific and observable with the exception of their statements—builds motivation and engages students—which are general and more difficult to apply without further explanation or qualification.

Instrument 2

The second instrument was designed to collect data to address research questions 1, 2, and 3:

1. What are the beliefs of third grade teachers in the Southmoreland Elementary School regarding the effectiveness of their homework practices?

2. Are those beliefs impacted by their critical reflection on the characteristics of effective homework practices?

3. Are their beliefs impacted by their critical reflection on and self-evaluation of their own homework practices?

The data were collected from the 3rd grade team via three open-ended questions regarding beliefs about homework. The questions were shared through Google Classroom and collected for evaluation and codification. The responses were also shared with the team and used by the team to examine their beliefs against what their homework actually reflects with respect to student

learning. Teachers were also asked to upload an example of an effective homework assignment and identified the characteristics of the assignment that make it effective. The teachers then stated the evidence they gathered from what the students did/learned that from the assignment that justified their conclusions about its effectiveness.

The responses from each teacher are presented below in order of the questions asked. Teachers are identified and identified by codes assigned to them in the data analysis map (See Figure 4.1). The verbatim responses are the teachers are displayed in italics. Each teacher's responses are discussed. Finally, the responses and examples of all participants is summarized.

Teacher M-1

1. Description of assignment: *A math worksheet that opens with a review and then practice problems related to unit fractions.*

2. Describe the elements or characteristics that make this homework assignment/task effective.

The assignment gives a "Homework Helper" which reviews the objective of the lesson. It also explains it to the parents if they need to help their child with the homework. Every homework assignment is labeled, "My Homework", so there is little confusion with what page is for homework. This is also very consistent for the students and parents, that every homework assignment is labeled this way. The homework reviews the objective by having the students practice independently, or with the help of their parents. We do not grade our homework assignments. The "Practice" section of the homework is consistent with the practice we completed in class. The homework is timely. Twelve questions, not 30. It's just not "busy" work. The homework also meets the requirements of our state standards.

3. What is the evidence that you collected from the students who completed this assignment/task that supports your conclusion that this is an example of effective homework?

The homework was collected and checked to see if there were errors. As mentioned earlier, sometimes I have received emails, or notes telling me the student had difficulty with certain questions. I take this opportunity to reteach the skill that is causing confusion. Since we do not grade homework assignments, I encourage parents to help or check over their child's work before handing it in. While checking the homework, I decide if the objective of yesterday's lesson has been reached. If many students have struggled with the homework, the math team may decide to spend another day reteaching that objective. If we are confident the objective has been reached, we move on to the next objective. The homework reviews our vocabulary very well also. Many parents don't consider vocabulary words to be an integral part of Mathematics, but it certainly is! Brain Builders is another section of our homework assignments. This section challenges our advanced learners. It also gives the average to below average students the opportunity to try these "HOT" questions they may not otherwise been exposed to. I feel homework has had a negative connotation attached to it. I find it to be a valuable tool in my educational process.

Discussion of M-1:

Teacher M-1 indicated a belief that the homework is tied to a clear purpose, is timely, and is meaningful for students. M-1 notes that the work correlates to each lesson and to the state standards as well. M-1 uses the homework formatively to make decisions about what was successful in the instruction and what may need further explanation or support. In this way, M-1

can see trends regarding teaching strategies and may also determine who among the students may need enrichment and who may need more substantive practice.

It is clear that M-1 intentionally designs homework that has purpose and value that extends well beyond communication and rote memorization. M-1 believes that homework, employed effectively, can be an important tool for determining student learning and student growth. Moreover, M-1's response addresses the question of equity and that the student should be prepared for completing the homework based on what the student learned during the lesson. Specifically. M-1 notes that students can complete the practice independently or with the help of a parent.

Overall, M-1's confidence in his selection and application of homework clearly establishes a strong sense of perceived positive self-efficacy for homework design and delivery based on previous success. M-1 writes in response to question 2 that "[w]hile checking the homework, I decide if the objective of yesterday's lesson has been reached…. I find [homework} to be a valuable tool in my educational process." This personal judgment of competence based on a positive track record is strongly supported by self-efficacy theory, especially in relation to "personal mastery experiences" (Bandura, 1977, p.195). Because M-1's believes that the homework practices are beneficial to students, it also makes sense then that M-1 attributes that completing conceptually timely homework assignments and doing so with accuracy can help students develop efficacy and confidence. Therefore, M-1's defense of homework as more than "busy work" makes sense as does his argument that homework suffers unfairly under a "negative connotation". This is because M-1 bases his conclusions on the quality of his own homework assignments which are given each night as practice and tightly aligned to the lesson through the

textbook rather than home assignments in general or even those assigned by his building colleagues.

M-1 is also specific in the assigning if homework to all students without differentiating or personalizing the work based upon student performance.

Teacher M-2

1. Description of assignment: *A math worksheet that opens with a review and then practice problems related to unit fractions.*

2. Describe the elements or characteristics that make this homework assignment/task effective. *It provides appropriate models, breaks down the process for students, is timely with a clear purpose.*

3. What is the evidence that you collected from the students who completed this assignment/task that supports your conclusion that this is an example of effective homework?

Students are able to complete with little adult interventions with a high degree of success. And if they can't, that tells me a lot as well.

Discussion of M-2

Teacher M-2, like M-1, notes the importance that homework is timely and appropriate, though how "timely" is defined (in terms of connection to the lesson or with respect to the length of the work) is unclear. This common statement is probably related to both teachers working on the characteristics of effective homework as part of the math team. M-2 assignment of the work also shows the value and importance of the homework to evaluating the levels of student

understanding related to the instruction on fractions done through the Google Classroom.

M-2 notes that the work assigned should be accomplished with little "adult intervention". It is important to note that M-2 does not state that students are expected to complete the work with "no" adult intervention. It can be inferred, then, that at least some adult interaction with the homework is expected or preferred by M-2.

Teacher M-3

1. Description of assignment: *A Google form for fractions using multiple choice and short answer responses for students on fractions, including one word problem.*

2. Describe the elements or characteristics that make this homework assignment/task effective. *This homework assignment is derived from an actual page in our third grade math workbook that we would typically have assigned as "take home" homework if we were presently instructing in our physical classrooms. In our distance learning classroom, however, now our students are first instructed to watch instructional videos and complete an assignment on their actual workbook pages prior to submitting their responses via the Google form adaptation. Therefore, they're still able to express their thought process for a particular concept through written expression (short answer, drawing models, etc.) in their workbooks as we normally would in the physical classroom setting. The multiple choice modality of this form was selected to make the assignment more effective in that when students are transferring their original responses, they are provided select answers to choose from, one of which being the correct answer. In addition, typing short answer responses on the Google Slide workbook pages that we initially provided for students proved to be too challenging for the majority of our third graders*

(and often those helping them at home) due to lack of familiarity with utilizing Google Classroom, as well as our third graders' lack of typing skills.

3. What is the evidence that you collected from the students who completed this assignment/task that supports your conclusion that this is an example of effective homework?

In reality, we will never truly know who is actually completing and submitting each and every distance learning assignment regardless of grade level or subject area given the nature of our virtual classroom. In addition to student performance levels, the ability to modify the directions and modality of an assignment such as this, in order to incorporate further detail/instruction as we would in the classroom, appears to have aided in our students' transition to distance learning.

Discussion of M-3

M-3 establishes that while the assignment matches the model that the team established while working in person with students, the delivery mode of Google Sheets is a concern. M-3 points out that student performance may not be representative of student proficiency as this mode of homework may be affected by familiarity with the online platform and student typing skills.

M-3 also establishes a concern regarding the validity of homework completed in a virtual setting. There is no way to know who completed the assignment when teachers are not present to observe the students in the process of completing it. Deep and meaningful learning occurs when a student is provided good examples, attempts to replicate those examples, and then applies that learning from the examples to new or different contexts. Success in this way establishes a level

of confidence, and indeed, belief, that the student can continue to apply this learning, but more critically, can trust that these experiences will result in a positive outcome.

Both the students and the teacher draw on the own experiences, but those experiences do not necessarily translate from the brick-and-mortar experiences into the Google Classroom setting. It will be more difficult for some students, and indeed, some teachers, to connect success in the past to the current learning environment. M-3 and the students in this new world are will be establishing self-efficacy together. M-3 writes that while questions remain regarding the validity of the student performances on this assignment, this issue exists in the brick-and-mortar model as well. More importantly, M-3 closes with the idea that in this new mode of instruction, some of the old methods can be applied (modifying the instructions, adjusting the scope and purpose of the work in response to student feedback), which indicates that M-3 feels that the experiences of the past will be relevant to the instruction provided in new ways for the students going forward.

Teacher E-1

1. **Description of assignment:** *A reading review packet that asked students to identify the topic, main idea, and details from a cold read, a phonics review for vowel sounds /u/, vocabulary prefix "un" and grammar focus on capitalization. This assignment included an intervention read, an on-level read and an enrichment read. A comprehension focus strategy graphic organizer required students to write the topic, main idea and details from their respective read (intervention, on level or enrichment). A phonics page measured the student's ability to use /u/ and to select the correct spelling of a vocabulary words from the cold reads. A vocabulary page emphasized choosing the right vocabulary word for the blank in a supplemental read based on*

the same topic and included a word back of choices. The final page reviewed capitalization rules and asked students to correct capitalize proper nouns and names.

2. Describe the elements or characteristics that make this homework assignment/task effective. *It reviews all strategies and skills taught throughout this ELA unit. It differentiates practice using different passage levels.*

3. What is the evidence that you collected from the students who completed this assignment/task that supports your conclusion that this is an example of effective homework?

In the school past year, students at all levels were able to demonstrate an understanding of these skills on this assignment as well as prepare successfully for their assessment. Students who did struggle with a section on this assignment, received individualized intervention for that skill prior to the assessment.

Discussion of E-1

Teacher E-1's choice of assignment includes many instructional materials and measures. From cold reads and comprehension to grammar and spelling, many skills will be tested. The assignment is differentiated by readings (one on level, one enrichment and one intervention piece) and students are assigned the work based upon E-1's previous evaluative data. E-1 establishes that this assignment is connected to the ELA thematic unit and provides appropriate practice of the unit's objectives. This is unlike the Math team's position of assigning work to all students with each lesson without c=consideration of performance or differentiation.

The assignment was a review of the previous week's work. Teacher E-1 followed the district's directive to focus more on experiential learning and connections at the opening of

distance learning. Because the teachers had not been trained to teach in this way, lacked the resources at the outset of the distance learning and as students at the elementary level had not be taught how to learn and respond in a virtual setting, the district believed that no new instruction should be presented. Rather, the district administration directed that the focus should be placed on experiences (videos, games, and practice of familiar content) and engagement (ensuring students stay connected to school and to one another).

E-1 added that the completed work would be evaluated to determine additional intervention or enrichment as the student performances indicated.

E-1's choice to follow the district directive clearly indicates an understanding of the long-term consequences for this change in delivery. E-1's decision to align the lesson with the district position to focus on the experiential lessons and connection with students by reviewing rather than introducing new content shows that E-1 understands the limitations of teaching in this new way, without training and the benefit of experience. Indeed, the ELA team attributes much of their collective decision making to choices left to them as a result of the pandemic and the district's overarching philosophy of experiences and connectedness, which are both outside their locus of control. E-1 may or may not believe that new instruction is possible in this new model, but it is clear that E-1 respects the district's direction on what will be taught and measured in the virtual setting.

Teacher LS

1. **Description of assignment:** A worksheet for practicing writing of vocabulary three times and tracing the letters for a blend in red.

2. Describe the elements or characteristics that make this homework assignment/task effective. *This homework assignment allows the students to not only practice their spelling words, but by highlighting the weekly letter pattern it helps the students visualize and separate the pattern within the word.*

3. What is the evidence that you collected from the students who completed this assignment/task that supports your conclusion that this is an example of effective homework?

The students have been able to recall the correct pattern within the word when orally and physically spelling the words in different contexts including tests.

Discussion of LS

Teacher LS is the grade level Learning Support teacher. LS co-teaches and also provides direct instruction as determined by each student's IEP team. LS selected an assignment that is connected to the ELA lesson from the previous week (which was taught in the classroom). The assignment employs vocabulary from the intervention cold read from the aforementioned E-1 unit packet.

Teacher LS focused on the more granular components of phonics and the physical act of tracing letters to reinforce the proper formation and spelling of the vocabulary words. Students who are struggling with a concept are less likely to volunteer answers and may deflect attention from themselves to avoid the support.

Teacher RS

1. Description of assignment: *Students viewed a digraph video and completed a form that asked the students to correctly use "ph, gh, ck and ng".*

2. Describe the elements or characteristics that make this homework assignment/task effective. *I think this distance learning assignment/homework is effective because it is engaging, uses a variety of resources, and involves parent participation. Students are to watch a short YouTube video about four specific consonant digraphs (ph, gh, ck, and ng). The presenter uses a variety of words that students would be familiar with and gives some helpful tips for students to remember the sounds the consonant patterns make. In addition, I've asked students to brainstorm and create a list of words using each of the four digraph patterns and then try to increase their fluency in reading through their lists. Family support and assistance would be encouraged and members might even give clues or challenge each other to see who can think of the most words for a pattern list in a set amount of time. In addition, if I were presenting this in class, I would have used a Making Words lesson in which students would have practiced spelling out words using letter tiles or dry erase boards for each of the consonant digraph patterns, so they would have more familiarity with the sounds and common use of them in words. We would also likely have read a book or fluency passage with digraph patterns.*

3. What is the evidence that you collected from the students who completed this assignment/task that supports your conclusion that this is an example of effective homework?

Viewing the digraph video and talking about it with family members would help students build on prior phonics knowledge and develop word reading automaticity. The digraph word charts that students and their families will create would reflect understanding of the phonics sounds

and their ability to identify common words using the digraph patterns. Spelling activities, journaling and word building lessons could extend student learning.

Discussion of RS

Teacher RS is the grade level Reading Specialist. The students receiving this assignment would also be completing the E-1 unit packet. Teacher RS developed an assignment that asked students to first view a video on digraphs and then write their own digraphs in an online Google Form. This assignment was adapted from one that RS had taught in the classroom in years prior; however, this was new instruction.

The assignment is designed to provide foundational skill development for students who need additional and specific reading interventions beyond the differentiated learning assignments from E-1 and without the fundamental practice provided by Teacher LS.

Summary of Data Analysis from Instrument 2

Because Mathematics is linear in construction, the importance to M-2 to ensure that students were able to complete the work before moving forward is also in line with the thinking of M-1, who felt that the team could not move forward unless the team was in agreement that students were demonstrating an acceptable level of proficiency, and that those students who were not showing that proficiency level were identified for additional intervention work (reteaching, practice materials). It is interesting to note M-3 chose another assignment as an example rather than using the assignment selected by M-1 and M-2. The team follows the same map and uses the same materials each week to ensure the guaranteed and viable curriculum for all students,

and so it can be assumed that M-2 has taught the M-1/M-2 lesson as well. This may speak to M-2's self-efficacy regarding that particular skill and how the team would be assessing it.

E-1 wrote the only response for the ELA team. The assignment was aligned to the text and the standards, differentiated and structured to collect student performance data in a number of content areas. Both Teachers RS and LS attend the ELA zoom meetings and are active in the discussion regarding pacing, instruction and assessment. Teacher LS tied the assignment to the ELA team's packet, while RS identified a specific skill deficit and planned an assignment accordingly.

Both teams established that the assignments were lashed to state and curriculum-level standards. Parent involvement, to varying degrees, was an expectation of the Math and ELA teams. Orton (1996) writes that while teachers help students to construct their own knowledge, teachers as learners themselves must learn to construct their individual and team understandings of student learning (p. 133). While the PLC model of teaming and collective efficacy may be central to the work done in the school, the fidelity and commitment to challenging beliefs and changing instruction and assessment may still be a daunting challenge.

Instrument 3

The third instrument was designed to collect data to address research questions 1, 2, and 3:

- *What are the beliefs of third grade teachers in the Southmoreland Elementary School regarding the effectiveness of their homework practices?*
- *Are those beliefs impacted by their critical reflection on the characteristics of effective homework practices?*

- *Are their beliefs impacted by their critical reflection on and self-evaluation of their own homework practices?*

The data were collected from the 3rd grade team via four open-ended questions describing the homework assigned for that week, how that homework was selected and paired with the lessons, how the homework guided decisions regarding performance and response to performance, and if the teacher believed the homework was effective. This process was repeated for four consecutive weeks, beginning on April 13, 2020 and ending on May 10, 2020.

The responses from each teacher are presented below in order of the questions asked. Teachers are identified and identified by codes assigned to them in the data analysis map (See Figure 4.1). The verbatim responses are the teachers are displayed in italics. Each teacher's responses are discussed. Finally, the responses and examples of all participants is summarized. It should be noted that not every teacher answered each week, and that at times, the teams wrote answers collaboratively. These distinctions are made clear in the heading of each data set for each week.

Instrument 3.1

Teacher M-1 (Week 1)

1. Which lessons were paired with a homework assignment and why?

We (the math team) pair each and every lesson with a homework assignment, Monday through Thursday. Again, that is the way our textbook, "My Math" by McGraw-Hill" has organized the lessons. The team took great care when choosing this series. The homework element of the textbook is a strength, and was one of the key aspects in our decision to purchase this textbook.

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? *We assign homework regardless of the student's performance. As mentioned earlier, I believe homework is much more than busy work, or even reviewing that day's objective. I know many students have mastered the lesson in class. Some might argue," Why do they need homework then?" Homework is so much more in my opinion. Work ethics, for example. If children don't learn that at a young age, when do they learn it? It also teaches responsibility, to complete the assignment, and make sure it gets turned in. Parents get involved by seeing what their kids are learning in math class. I personally believe the advantages of homework far outweigh the disadvantages. Homework can be misused by educators. I feel our team uses homework appropriately.*

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *Some days the homework comes back with parent notes, or I receive emails about certain confusing questions. I call those students to my desk and go over the misunderstandings. I check every homework that I receive back. If I find many errors in the homework assignment, I reteach that lesson that day.*

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson? *I believe they were effective. Every homework assignment begins with an example problem which reviews the lesson's objective very well. This example, also helps the parents understand the objective of the lesson if the student asks their parents for help. At times there is a disconnect from classroom to home. They seem to have acquired the objective of my lesson at school, but when they get home, they don't understand. Homework, helps me determine if this disconnect is happening, or did the*

student really "get it" in class. Homework also keeps the parents informed with their child's learning. How many times have parents at the dinner table asked, "What did you do at school today?" The children respond, "Nothing". Most parents like to be involved with their child's education. I feel homework helps keep them involved. The homework assignments/tasks are created by the textbook company we have chosen. So the math team rarely strays from this assignment. It is very well organized, with just the right amount of practice, and reinforces the objective of that day's lesson.

Discussion of M-1 (Week 1)

M-1 began the response by noting that the lessons were connected to homework throughout the week. M-1 also noted that the new series was selected specifically to meet this aspect of the Math team's value—lessons are supported by independent practice.

This intentional selection of a series that features a wealth of independent practice is an important factor in analyzing M-1's statements. First and foremost it helps to explain why M-1 might not speak to the connections between student performance and the type or amount of homework given. M-1 does not use the results of student performance to determine the amount or level of homework given partly because M-1 sees the assignments scheduled in the series as part of the lesson--part of the instruction. This provides a possible causal explanation for M-1's view of the impact of homework not only as performance indicator, but also as a tool for increasing student-self-efficacy. M-1 points out that homework is more than just practice. It is about work ethic, commitment and personal development. It is interesting to note that efficacy with the actual mastery of the content is not mentioned. M-1 seems to believe strongly that work ethic is derived from completing homework and that a student's confidence about attempting

difficult work is directly impacted by the teacher's efficacy expectation for the students. Work ethic was not identified by the Math Team in Figure 4.2 as part of the team descriptions of the characteristics of a good homework assignment; however, the ELA Team identified it as one of its descriptors.

M-1 was very clear that homework is assigned even if every student demonstrated that he or she was proficient at the skill in the assessment. Teacher M-1 considered the homework formative for him—M-1 used the data to inform his instructional strategies.

ELA Team (Week 1)

1. Which lessons were paired with a homework assignment and why?

Prior to COVID 19, our homework consisted of a skill review. An example is attached in the previous questionnaire. This review homework consisted of the ELA unit skills taught in the classroom with quick independent questions. Students were given in class time to start this assignment prior to it being taken home. This allowed for students to ask questions as they worked on it. Students then completed the remainder of it at home. Students were most often given two evenings at home to complete this assignment. We, as parents, as well understand busy evening schedules but feel homework is important to promote responsibility and provide delayed independent practice to ensure mastery of these skills. We also encouraged that a parent/guardian review the homework with the child and provide a signature on the front cover. This is yet another layer of communication with families of what skills were being taught and assessed. On the day that the homework assignment was due, it would be checked. Students who missed multiple questions would be provided with intervention activities prior to the assessment. Students who also consistently showed mastery of ELA unit skills with minimal errors reached

enrichment activities as well as the higher level comprehension passages in the unit review homework. On the other hand, students who were struggling readers or consistently struggled with comprehension skills were given a lower level reading comprehension passage in their homework assignment. Learning support students were given adapted homework review packets that covered the same ELA unit skills but at their own individual learning levels. Homework, as you can see, prior to COVID 19 was differentiated. Our homework/ classwork activities and focus shifted entirely with the onset of Distance Online Learning in order to promote the most effective methods and opportunities possible with the realization of parents now assisting children, children completing activities without hands on adult guidance, and students without or limited technology access. Currently and since Distant Learning began at the start of the 4th nine weeks, a specifically selected, read along third grade novel with skill review, multiple intelligence based, analytical, and critical thinking personal questions activities have become our ELA classwork focus. For ELA, each day's online learning lesson consists of 2 chapters that can be read along with on a YouTube video where each page of the book is turned as it is read aloud, so that students are able to view the words as well as hear the words. For more advanced readers, they may choose to mute the audio read aloud, and read the words purely by themselves. Attached to each chapter were 3-6 skill analysis previously taught in the physical classroom, basic comprehension or key detail questions, and connection/prediction questions. We also included with each day's ELA assignment a Study Island Connection Optional activity. The Study Island Connection aided students who may need to review the comprehension skill that was being assessed in the novel chapter questions, an opportunity to do so by providing a mini online lesson of that skill often including an instructional video as well as additional differentiated practice opportunities of that skill. Learning support students were assigned Study

Island Connection Activities at their own independent levels. Students who also demonstrated success easily of the Study Island Skill activity at the third grade level where given a correlating activity to complete at the 4th grade level for enrichment. Students received immediate feedback from this site as well as and could choose to have mini brain breaks during each practice session by playing games. This site provides these mini brain break rewards throughout the question when students answer a question correctly. Students also get to select the type of game that they play from a huge list prior to starting each lesson's online questions. Students also earn a Study Island Blue Ribbon once mastery is demonstrated at the skill level being assessed. For students without technology, a novel as well as the same chapter activities in paper form were mailed home to be completed with a daily schedule of what needed to be accomplished on that particular day. Students without technology could have an adult read orally the chapters while they followed the words, partner read the chapters with a sibling or an adult, or read the chapters to self.

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson?

Once a student submitted his/her work, we, as teachers, would check his/her work and provide feedback to each individual student. Sometimes, students were given additional instructions through private messages, asked to make corrections, and resubmit the assignment. Overall, students' achievement was very successful this week using this method. We feel it is important to provide students with a consistent online learning ELA lesson and activities format throughout the daily assignments. Therefore, we are going to continue with this same format of reading 2 novel chapters and completing short activities for each chapter as well as providing students with a Study Island Connection Optional Activity. We did notice on one question this week that it

asked students to draw what they visualized for a particular scene in that chapter using the drawing tools on Google. This seemed to be a challenge for many students. Therefore, when we were communicating with students through Google messages, we edited the question while it was live to include in that question draw or describe using words what was visualized during that scene in the chapter. This alleviated the problem with this particular question. We, then, looked ahead at the remainder of the novel's questions to add this to any questions that stated to draw using Google's drawing tools.

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching?

We utilized the evidence and information to determine that this format was easy to follow for students as well as their guardians. We decided to utilize this format for the remainder of this school year's ELA online lessons and homework. Students individually who had difficulty with a particular question skill received individual private instruction through a message/ chat method, so that they could achieve success on that skill. This method also was successful. Therefore, we plan to use this method for the remainder of the ELA online school year. Again, we feel that a consistent format is the key to online learning success.

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson?

We feel that these ELA tasks were effective because they provided students with a review of skills previously taught this school year. Since online learning began during the 4th quarter, students had already been taught all ELA PACORE 3rd grade skills initially in the traditional classroom format and since we use a spiral curriculum ELA approach, we felt confident in the tasks that we

included in our online ELA class. As mentioned above, a question was reworded that we found students had difficulty with during the task. This question will remain changed for future lessons if we utilize them again. We also decided to include sporadically in our classroom streams some optional ELA activities and question answer chat opportunities to keep our students connected as well as engaged in learning.

Discussion of ELA Team (Week 1)

Prior to the closure, the team paired homework with each lesson. Time was provided to the students in class to begin the homework. The homework due date was set for two days following the assigning so that parents were able to be engaged with the student in the practice.

Data collected from the homework was employed to determine which students needed additional support and which needed extension activities, which could include advanced homework.

In the distance learning model, the ELA team selected a grade level appropriate novel for instruction. A lesson consisted of two chapters from that selection that would be supported by a read-along YouTube video. Three to six previously taught skills, including basic comprehension and predictive questions, were assigned to reinforce those concepts. Additionally, an online program (Study Island) provided differentiated levels of practice was assigned to students online.

The team provided feedback through messaging. Second chance opportunities to correct homework were offered to students as determined by the ELA team. The team considered the validity of the homework assignments and discussed in their response a change made when many students answered a prompt incorrectly. The team used that data to present the question again more clearly to gauge student understanding.

The ELA team believed that this model afforded evidence that the online instructional framework and content was effective. The team considered the data collected to be representative of student learning and that the data would be useful in determining what type of intervention or extension activities would be assigned for the students. The team also felt that the homework assigned was effective and noted that the assigned practice matched with the district's directive of "no new instruction" in the closure. The homework was specifically selected and assigned to review and deepen previously taught concepts. The ELA team incorporated the Google drawing tool for students to respond to a question virtually but discovered that this was difficult for some of the students to do. The question was revised by the team to include describing and drawing.

Teacher RS (Week 1)

1. Which lessons were paired with a homework assignment and why? *Currently, with distance learning activities, all of what we are doing is homework. Typically, in a regular homework assignment I would only give additional work if the student received support or benefits from participating in the assignment. If an assignment gives extra practice with a new skill, help to improve reading fluency of words, sentences, or passages, or aids understanding and comprehension of something read, then it would likely be something I might assign as homework.*

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? *Student performance during lessons can definitely impact homework plans for reading. If a student struggles with a specific skill or if something seems complex, I try to find a variety of teaching strategies to demonstrate more about it. I encourage peer or group learning activities, use hands-on lessons, and use learning tools that*

give more clarity to the concepts we're learning. I have found that exit tickets and takeaways (name one thing that you can use from our lesson) given at the end of class provide insight to me about what students have learned. I feel that I constantly refer back to prior skills before adding on the new information, so that students can see continuity between skills. I try to demonstrate with modeling and samples, where they are needed, before assigning work to students. Fluency increases typically result from repeated reading or familiarity with many phonics patterns. Therefore, frequent pacing and practice are essential elements in fluency gains.

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *I would check for comprehension or evidence that a student understood the assigned task and skills. If students need more practice, I would plan to spend additional time in that skill area. It also shows me tie-ins with regular core curriculum standards. Sometimes, student sharing about an assignment helps me to see where there might have been any difficulties or what they found to be very easy. I can also see which students have support systems at home when parent involvement or signatures are needed. It can be a way of connecting with parents.*

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson?

I feel the assignments completed during this past week were effective. It is helpful to see and hear student responses in person, but written tasks can also show evidence of learning. Student writing related around the theme of the book would typically have been done in our journals, but were done orally with a parent. I think that it would be more beneficial to student learning if I could have students read and record their reading, then have that sent to me. I could see which

word patterns or high frequency words were difficult for them. It would also show me if the selected reading level of the book was a good match for the students.

Discussion of RS (Week 1)

Teacher RS began by sharing that as a result of the pandemic, RS considered all work to be homework. RS further explained that in the past, homework for Reading Support was assigned only when RS noticed a need and that the homework was specific to the student and the deficit.

RS affirmed their belief that student performance directly impacts the planning and assessing of homework. Teacher RS used that performance evaluation to personalize homework from type to frequency. Furthermore, Teacher RS indicated that in skill building for struggling readers, the practice positively impacts student fluency, and therefore, student reading proficiency.

Though RS felt the homework given in week one was effective, RS also noted that the mode for collection (in this week's work, the completion of a Google Form) was not as impactful as perhaps having a student record their voices while reading the passages so the RS could listen for reading, spelling and articulation problems to provide specific remediation.

Teacher M-2 (Week 1)

1. Which lessons were paired with a homework assignment and why?

All new math concepts for independent practice.

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? *Sometimes I will skip homework for a day if many struggled with the concept. Or we do it together, half of it together, depends of the situation.*

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *Can determine how long we spend on a concept.*

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson? *They were effective. We teach concepts in small chunks so as not to overwhelm students.*

Discussion of M-2 (Week 1)

Teacher M-2 reported that new concepts were paired with homework and that student performance on that homework determined whether students would receive additional practice or if the class would work with the teacher on those practices together rather than individually and without teacher support. M-2 noted that if many students had difficulty with the lesson, homework was not assigned.

With respect the effectiveness of the homework, M-2 indicated that the homework was used to determine how long the teacher would spend in that content area and that the homework was not lengthy to prevent students from feeling overwhelmed.

Teacher LS (Week 1)

1. Which lessons were paired with a homework assignment and why? *In the learning support setting, our homework is paired with assignments for skill repetition. Our assignments are adapted to have less problems to work with. The students also have time to start assignments in school. This allows them to ask questions and get further guidance if needed. In the virtual classroom, assignments are paired with an instructional video and guidance from the teachers.*

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? *If a student is really struggling with a new task, they will receive more individualized instruction and in class practice. After the student has demonstrated a more concrete understanding of the skill/task, we will work through majority of the homework problems together. The student will have only one to two problems to complete on their own.*

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *The students' responses are used to direct intervention lesson content. If a student's homework shows signs of struggle, I know that I need to pull that student and reteach the content and give them more individualized practice with that specific skill. If the student's work demonstrates a strong understanding of the content, I can give them some more challenging practice within the skill.*

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson? *During the closure, some of my learning support students are struggling with the new concepts. They need more hands on activities to develop an understanding of the content. When they are working with review skills,*

they are doing fairly well. One alternative activity I have assigned for my students is to utilize the mobymax website. This site is geared towards closing learning gaps. They are able to go on this site and read stories on their instructional level and answer comprehension questions. They are also able to practice their sight words, math facts, and beginning level phonics skills. Some of these activities have been a good alternative to grade level content.

Discussion of LS (Week 1)

Teacher LS opens by outlining the difference between the in-person homework and the distance learning practices. In the virtual setting, LS wrote that the assignments are paired to the lesson using an instructional video and teacher support. In considering student performance, LS shared that based upon the results of the homework, struggling learners would be given individual instruction and in-class practice to address learning concerns. Moreover, LS reviewed the homework with all students, step-by-step, and limited homework to one to two problems in a given night.

Homework results were included in the planning and instruction by Teacher LS. LS based interventions and enrichment activities upon the results collected by LS from the previous night's homework.

LS noted that the closure impacted student performance as the mode of instruction and demonstration is so different from what the students had come to know and expect. LS added that this was especially true of instruction related to new material. Students performed better on reviewed concepts in the new mode. LS referenced the implementation of an online independent practice tool called MobyMax, which was assigned to all students to provide additional skill-building opportunities in reading and math.

Teacher M-1 (Week 2)

1. Which lessons were paired with a homework assignment and why? *All of the lessons were paired with a homework assignment this week. The homework was assigned to reinforce the skills/objectives of the week.*

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? *Homework was assigned regardless of the students' performance.*

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *The homework helped me determine to reteach a lesson, or move on to the next objective.*

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson? *I believe they were effective. I receive a great deal of information from the homework. The results from the homework help me determine the level of mastery, which determines if I needed to reteach a lesson, or move on to the next lesson*

Discussion of M-1 (Week 2)

Teacher M-1 wrote that all lessons were paired with homework for the week and that the homework was assigned to reinforce the skills taught that week. M-1 reiterated that homework was assigned regardless of student performance during distance instruction and that the data was considered by M-1 in deciding whether to reteach the lesson or to proceed to the next concept.

M-1 asserted in the response that the effectiveness of homework is directly connected to M-1's ability to discern each student's proficiency and then the decisions regarding reteaching or progression into the next lesson.

Teacher M-3 (Week 2)

1. Which lessons were paired with a homework assignment and why? *Each of our third grade math distance learning lessons includes an independent practice assignment. The intent is to provide our students with an opportunity to demonstrate their understanding of the lesson concept.*

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? *Typically, when we are in the physical classroom setting, our math instruction is more fluid and we monitor and adjust accordingly as the lesson progresses. This may involve postponing a particular math homework assignment, completing a portion of the assignment collectively as a class, or simply affording our students a portion of class time to begin their homework while teacher support is available. Student performance cannot be monitored in real-time during distance learning as students could theoretically complete their assignments at any hour of the day. Therefore, we rely on our students' ability to communicate their needs via email or private message. Individual feedback is provided as issues arise, but unfortunately if a student does not make us aware of an issue that they are experiencing, we are unable to provide necessary interventions. Occasionally, parents intervene and contact us on their child's behalf in order to convey and/or provide clarity with regard to a student's assignment concern.*

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *A significant challenge presented by the nature of distance learning is our inability to know whether or not a particular student's low performance is the result of a technological issue or that of a lack of conceptual understanding. Therefore, teacher feedback and/or questioning is necessary on an individual basis in order to determine if the lesson was impacted or needs changed.*

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson? *Overall, the content of the homework assignments/tasks was effective and successfully completed by the majority of our students. However, although the tasks were effective, the formatting we initially selected for our student response instrument (e.g. math workbook page formatted with text boxes) appeared to impede some students' ability to accurately demonstrate their comprehension of lesson concepts, mainly due to technical issues. Therefore, we decided to incorporate the use of Google Quiz forms in order to provide our students the ability to reply via a multiple choice format instead of short answer or open-ended response, in an effort to reduce student frustration when attempting to accurately convey their response.*

Discussion of M-3 (Week 2)

Teacher M-3 wrote that in the distance learning model, each lesson was paired with a homework assignment that provided additional practice or showed student depth of understanding.

M-3 then discussed the difference in performance between in-school and distance learning as it pertains to performance and impact on changes to homework, noting that the in-class math instruction was more flexible by nature, as decisions about a student's level of understanding could be measured minute-by-minute. Those decisions could result in the postponement of homework or the completion of the problems as a group and with the support of the teacher. In the distance learning model, M-3 found that this was more difficult, as real-time responses were less frequent. Students could work asynchronously, and therefore, M-3 could not intervene in a timely manner.

The student's ability to communicate the difficulty of a lesson or assignment was also greatly impacted by distance learning. M-3 added that students would need to email or message teachers when struggling with a lesson or assignment. Some students would be comfortable doing this, while others would not. M-3 wrote that this meant that the data considered for evaluating the effectiveness of the lesson or the assignment was unclear. Parents, too, emailed and messaged teachers, seeking to assist their children with the lesson or the assignment.

Teacher M-3 asserted that a challenge facing the teachers in the distance learning model was attributing student performance accurately. Was a student's performance on a homework assignment reflective of the student's current understanding, or was the performance more indicative of the mode of expression? M-3 emailed or messaged students to gain clarity in this respect.

While the homework was effective in M-3's view, M-3 closed the response by noting that in one instance that week, the way they had structured the response to the homework. Students were not finding success with writing short answer responses to the problems, and so a Google Form and multiple choice responses was given instead.

ELA Team (Week 2)

1. Which lessons were paired with a homework assignment and why? *Each day's online learning lesson consists of a short YouTube instructional video with self-checking interactive click and drag practice activities. These activities practiced the skills presented in the instructional video. As an exit ticket to check the students' mastery of these skills, we included a 4 question Google Forms assessment for each objective. For students without technology, paper versions of these activities were mailed home to be completed with a daily schedule of what needed to be accomplished on that particular day.*

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? *Once a student submitted his/her work, we, as teachers, would check his/her interactive practice activities and provide feedback to each individual student. Sometimes, students were given additional instructions through private messages, asked to make corrections, and resubmit the assignment prior to taking the exit ticket assessment. The exit ticket assessment on Google Forms was set up to be automatically checked by the Google System and provided immediate feedback to the students. Overall, students' achievement was very successful throughout our weekly lessons using this method. We feel it is important to provide students with a consistent online learning lesson and activities format throughout the daily assignments. Therefore, we are going to continue with this same format of providing a YouTube instructional video, interactive practice activities, and exit ticket assessment.*

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *We utilized the evidence and information to determine that this format was easy to follow for students as well as their guardians. We decided to utilize this format for the remainder of this school year's online lessons and homework. Students individually who had difficulty with a particular question skill received individual private instruction through a message/ chat method, so that they could achieve success on that skill. This method also was successful. Therefore, we plan to use this method for the remainder of the Social Studies online school year. Again, we feel that a consistent format is the key to online learning success.*

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson? *We feel that these tasks were effective because they provided students with an instructional video, independent interactive practice that could be repeated, and an exit mini assessment. The assessment could only be taken one time, so that we could gather evidence on the mastery level earned from all students. We did notice that some students using different forms of technology, such as an IPAD or Iphone had some difficulty clicking and dragging the squares in the interactive activities. We did add to the directions that students who had difficulty doing this could either create their own answer box by making a textbox to answer the questions or use the pencil line tool to draw lines to connect their answers. These additional directions will be included with all interactive click and drag activities in our future social studies lessons. We also decided to include sporadically in our classroom streams some optional activities for Earth Day as well as a question answer chat opportunity to keep our students connected as well as engaged in learning.*

Discussion of ELA Team (Week 2)

The ELA team wrote that in the second week, the model would include a daily YouTube instructional video. This video also provided students with "drag and drop" practice components that were lashed to the selected video and ELA content. The team also developed a four question Google Form that served as an "exit ticket" so that the teachers could identify each student's level of proficiency. The form provided immediate feedback to students and could not be completed until the student had finished the YouTube assignment. The ELA team employed messages and emails to each student with additional support, clarity of direction and opportunities for resubmitting. Students without internet were mailed the same material in print form. The team highly valued the structure of this model to ensure the consistent format for learning and assessment.

Data collected by the ELA team was used in the validation of the model as a vehicle for the instruction and measuring of students in the distance learning system.
Moreover, the team discussed in their review the usability of the model for students and families.

In conclusion, the ELA team felt that this model was highly effective and that the data it provided to the students and the team was timely and valid. One are the team focused on was the issue of the Google platform working with Apple products (iPads). The team wrote additional directions and allowed students to make their own textboxes for answers to questions in the lesson.

Teacher RS (Week 2)

1. Which lessons were paired with a homework assignment and why? *I assigned students to read a nonfiction selection for this week. I had second graders read a book called*

"Dragonflies" and third graders read "Zookeeping". Students were also assigned to take a comprehension quiz after reading. I wanted students to compare the genre of nonfiction with fiction (which we read last week), as well as to consider the skills that might be associated with each genre. These books provided additional fluency practice and application of specific skills such as cause and effect, fact and opinion, and classifying information. I wanted students to build on previously learned skills and move into more complex ones.

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? *How students perform on the comprehension quiz tells me a great deal of information. Once students have completed the reading and quiz, the website for Raz-kids also gives information about the skills that were related to each missed question. So, I can review the skill topic with written instructions, leave notes about specific confusing parts or look for additional practice activities that are tied in with the skills needed. Student alerts are given to show me if a student is missing a particular skill frequently and what the quiz scores are. I communicate with students by emailing answers to their questions and clarifying explanations, if necessary. I write encouraging messages for them to continue trying their best.*

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *Student scores, questions, and responses help me to see the skills that may need to be reviewed. I can also look at reading levels to see if they match student abilities. Reading the story independently is encouraged, but if a student finds it difficult or needs a review, he or she can also choose to listen to the story being read to him or her. Parents are also encouraged to assist students as they are reading orally. A feature allowing the students to have their reading recorded so that I*

can listen will be especially helpful. One student who tried using the recording seemed to really struggle with the book being read, so I will suggest that students use the listen feature and then try to reread the story to make reading smoother. I may even want to adjust the reading level that is assigned to make sure that students aren't reaching a frustration level.

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson? *Assignments were effective, but can be refined to further develop student interest and learning. It might be helpful to add a written open-ended response to the comprehension quiz to check for student understanding. Students' reactions to what they've read in their own words also can show connectedness between text-to-text, text-to-world, and text-to-self. Allowing students to reread the story and retake the comprehension quiz supports their confidence and increases comprehension of the information. Knowing that nonfiction is often more difficult to read than fiction may also help planning for the next nonfiction assignment.*

Discussion of RS (Week 2)

Teacher RS assigned a non-fiction text to her second and third grade students. A comprehension quiz for the reading selections followed and was assigned online for completion. This quiz was given to determine student understanding of the differences between non-fiction writing and fiction writing (which the students learned the week prior). Additionally, the selection was chosen to provide more practice in fluency and to reinforce previously taught elements of writing such as fact and opinion.

The data Teacher RS collected from the quiz was employed by RS to determine what kind of additional homework might be assigned through an online program called Raz-Kids. The program matched the skills RS has lashed to the lesson and would alert Teacher RS to students who had completed the additional homework but had not shown command of the skills. Teacher RS would then message the student directly with additional instruction, direction or encouragement.

Teacher RS reviewed the student homework data to identify skill deficits. RS would compare homework results to student reading levels to further clarify if the two data sets were in agreement. RS also wrote that the students could listen to the passages read to them online, but regrettably, the system did not allow students to record their own reading of the passage for RS to evaluate.

Teacher LS (Week 2)

1. **Which lessons were paired with a homework assignment and why?** *I assigned one of my ES students who struggles with friendship, stories/videos from PBIS that go over ways to foster positive relationships. His homework assignments were to first list the traits of a good friend. He then needed to reflect on himself. Based on the good friend traits he came up with, he needed to think about himself over the course of this year and reflect on if he demonstrated being a good friend. He then needed to come up with a specific situation that he was not being a good friend and come up with ideas of what he could have done differently. His final assignment for the week was to think of a time that he was being a good friend this year and reflect on how it made him feel. I thought that this was important because he not only had to come up with appropriate traits, but he got to apply them to himself and reflect.*

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? *If he is demonstrating the positive behaviors we are working on we move forward with our lessons. If he is not showing progress or understanding we revisit the content, but I present it in a different way.*

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *For this student I take a few things into consideration. I first look at his responses to see if he is identifying appropriate traits. I then look at his interactions with his family (especially his younger brother). If he is demonstrating positive relationships and responses we move forward with his lessons. If he is not we refocus on the content from the week/day. I try to represent the content in a different way.*

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson? *Yes. He had no arguments or physical fights with his brother. His mother reported him talking through his frustrations and practicing personal space.*

Discussion of LS (Week 2)

Teacher LS wrote about assigning a specific homework task to an Emotional Support (ES) student. The task was selected by LS to address a skill deficit that LS identified that centered on building and developing friendships. The homework included identifying the traits for positive friendships and a reflection piece for the student to complete regarding interactions with others throughout the year. A follow-up assignment asked the student to consider times

when the student showed those positive traits and when the student did not. Reteaching was the recourse if the student did not show proficiency in this skill set.

Teacher LS said that the evidence this homework provided influenced the decision to move forward or to reteach certain skills based upon the student's performance. LS believed that the evidence collected from the assignment and the resulting student performance proved effective. The data was collected by LS from the student's parent, who reported that after the lesson and homework, the student's interaction with a sibling was much better. The parent also shared that the student was implementing the self-calming strategies that LS had provided in the instruction.

ELA Team (Week 3)

1. Which lessons were paired with a homework assignment and why? *We also noticed and received comments that some students would like additional activities. As a result, we included in our Google classrooms Optional Language Arts Additional activities that will be released each week in our Online Classrooms. We choose to release these gradually so as to not overwhelm the students.*

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? *Continuing this journey of distance learning, it was evident after reviewing the written reading responses we needed to remind our students of the proper way to construct a sentence with capitalization and punctuation. Therefore, we found Common Core Third Grade "5 Minute ELA Warm Ups" that we used in our school classroom and that engage the students in several short review grammar skills.*

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *We utilized the*

evidence and information to determine that this format was easy to follow for students as well as their guardians. We decided to utilize this format for the remainder of this school year's Grammar online lessons and homework. Students individually who had difficulty with a particular question skill received individual private instruction through a message/ chat method, so that they could achieve success on that skill. This method also was successful. Therefore, we plan to use this method for the remainder of the Grammar online school year. Again, we feel that a consistent format is the key to online learning success.

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson? *We feel that these quick grammar tasks were effective because they provided students with a review of skills previously taught this school year. Since online learning began during the 4th quarter, students had already been taught all Grammar PACORE 3rd grade skills initially in the traditional classroom format and since we use a spiral curriculum Grammar approach, we felt confident in the tasks that we included in our online Grammar class. We also decided to include sporadically in our classroom streams some optional activities and question/answer chat opportunities where students could answer using complete sentences to keep our students connected as well as engaged in learning.*

Discussion of ELA Team (Week 3)

The ELA team expressed that some of the students were seeking additional opportunities for practice. The team developed weekly optional homework choices that were released into the Google stream periodically during the week for students who wanted those options.

Student performances drove the decision by the ELA team to design five minute grammar warmups to address the team's concerns that student writing in the distance learning model showed regression in spelling, punctuation and capitalization.

As the team continued to evaluate their delivery model and assessments, the ELA teachers felt that the consistency of the structure and the addition of the grammar warmups were both effective and successful methods for student instruction and evaluation.

Teacher RS (Week 3)

1. **Which lessons were paired with a homework assignment and why?** *This week I wanted students to have experiences that were similar to our class structure (in Title I Reading) so that they could identify with familiar learning processes, curriculum, and lesson activities. Moving learning experiences from the known to the unknown helps students to adapt and gain confidence in new class material and information they may encounter. By "stepping into their shoes" with our virtual lessons, I thought about what learning at this time looked like from the students' perspectives, while considering the unusual learning environments and circumstances of the coronavirus pandemic. I gave students assignments this week that would review skills that we had previously practiced, but that moved students into more complex ways of thinking about reading and comprehension.*

2. **How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson?** *How students perform with the assigned work can change how the homework or lesson is designed. If I noticed that a student was experiencing difficulty with previous work, I would ask questions and take steps to clarify any confusion or miscommunication about it. I often tried to explain the learning steps or process to complete the*

assignment in a different way. Giving examples and breaking down assignments into more manageable parts are also effective ways to help students approach new tasks.

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *The evidence from student assignments that I used in planning was student scores on their comprehension quiz following the reading of the leveled book. I also added in an open ended question that related to what students had to read. Much of what students do in our classwork involves reading, writing, and speaking, so virtual lessons are designed around that as much as possible. I encouraged students to read the leveled books to an adult and then record their reading of it so that I could hear it and determine their fluency and levels. In addition, another area that I felt that students needed to continue practice with was in the area of sight word recognition. Using our district's free Teacher's Pay Teacher's resources I found a Fry Sight Word resources that supports learning sight words from The First Hundred Fry Words (first grade words) to the Fifth Hundred (up through fifth grade). I assigned lists of words for students to read with an adult and added the element of timing, so that students could see their improvement in fluency rate as we continue to move through the various numbered sets. Students had to check on their sight word reading fluency related to words per minute and time to complete an entire set of words. Hopefully, by practicing common words students will find that reading more complex sentences, stories, and passages is made easier.*

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson? *The assignments seemed to be effective based on students' ability to complete the tasks, their scores on the comprehension*

quiz and the sight word assessments, and the open-ended written response. I want students to feel engaged and encourage them to do additional reading using the online virtual resource. It logs time spent on reading and related activities and rewards students with their own personalized avatar that they can add accessories to as they earn points for completing tasks. Many students have gone on to complete additional work beyond what was assigned, so that was very encouraging to me.

Discussion of Teacher RS (Week 3)

This week, Teacher RS planned the distance learning lesson and homework to parallel the in-school structure that the students would recognize. This would afford the students a level of familiarity and comfort. RS further explained that understanding how students were receiving instruction and performing on the assessments in the distance learning model was at the front of the preparation for the week. Furthermore, RS wrote that this all must be seen in the context of the pandemic, which further complicated the implementation of this new model for students, parents and teachers alike.

The student performances did impact the lesson and the assigned homework. RS elaborated further, writing that as a result of the data, RS would contact students to provide clarity for instructions, examples to illustrate and break down homework assignments into more reasonable chunks.

Teacher RS drew from the previous lesson's comprehension and short answer data, endeavoring to make this week's distance learning lesson as close to the more familiar in-school procedure. An area Teacher RS targeted for this week's homework was sight word recognition. Homework in this skill set included practicing and timing of students with the first 100 and the

first 500 Fry Words to improve student fluency. Teacher RS and the students both used student timing scores to determine growth and improvement. RS also wrote that as fluency improved, students could redirect focus away from identification and pronunciation and toward comprehension and inferencing.

Teacher RS felt that the homework was effective and based that position on data collected from student completion and performance numbers. RS also assigned a virtual reading resource that provided students with practice, immediate feedback, and positive reinforcement (virtual stickers and rewards) which in turn promote student efficacy, as some students progressed beyond the assigned work to attempt new and more challenging assignments.

Teacher LS (Week 3)

1. Which lessons were paired with a homework assignment and why? *This week I posted two instructional videos reviewing that tricks and tips of multiplying. Each day the students were assigned a multiplication fact fluency badge through the website MobyMax. On Thursday I posted a challenge video. This video was setup more as a game. The goal was for the students to beat me with answering their facts. The final multiplication badge assignment was due on Friday. Through the website I am able to get the students completion time and accuracy percentage.*

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? *The students' performance helps me to determine who demonstrating growth and mastery with their multiplication facts, and who needs more practice/tools to help them.*

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *Based on the students' Mobymax scores, I was able to see who I need to schedule more one on one time with/extra practice, and who I am able to move on to the next skill with.*

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson? *The students who completed this assignment/challenge showed growth throughout the week. One student's accuracy and time did not show as much growth as I would have liked. I have set up a time next week for him to meet with me to practice.*

Discussion of Teacher LS (Week 3)

Teacher LS connected to two assigned multiplication instructional videos to the MobyMax website for homework. Students earned virtual "badges" for accuracy and speed in knowing multiplication math facts.

Teacher LS reviewed the scores collected through MobyMax were considered in determining whether or not the students had improved in the area of math fact fluency and accuracy. To connect students to the learning, Teacher LS "raced" the students" on MobyMax as well.

On the whole, Teacher LS believed that students made appropriate growth. For one student whom LS identified as not making enough growth, an individual zoom lesson would be provided next week to review and retest.

ELA Team (Week 4)

1. Which lessons were paired with a homework assignment and why? *We also noticed and received comments that some students would like additional activities. As a result, we included in our Google classrooms SPELLING Additional activities that will be released each week in our Online Classrooms. We choose to release these gradually so as to not overwhelm the students.*

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? *Continuing this journey of distance learning, it was evident after reviewing the written reading responses we needed to remind our students of the common spelling rules and patterns. Therefore, we found Common Core Third Grade spelling activities that could be used with our Reading Street's spelling lists that we used in our school classroom and that engage the students in daily spelling activities. We included the weekly spelling word list, 5 repetitive activities to be used every week with a new spelling list (one activity for each weekday to practice,) a short instructional video to review the week's words' spelling rule or pattern, an instructional video on how to complete each of the five interactive spelling practice activities, and then on Fridays, a Google Form multiple choice spelling test was released to be completed. Once a student submitted his/her work, we, as teachers, would check his/her work and provide feedback to each individual student. Sometimes, students were given additional instructions through private messages, asked to make corrections, and resubmit the assignment. The spelling test on Fridays can only be taken one time.*

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *We utilized the evidence and information to determine that this format was easy to follow for students as well as*

their guardians. We decided to utilize this format for the remainder of this school year's spelling online lessons and homework. Students who had difficulty with a particular question skill received individual private instruction through a message/ chat method, so that they could achieve success on that skill. This method also was successful. Therefore, we plan to use this method for the remainder of the spelling online school year. Again, we feel that a consistent format is the key to online learning success. Therefore, we will utilize the same 5 daily interactive spelling activities each week using different spelling pattern words.

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson? *We feel that these quick spelling tasks were effective because they provided students with a review of skills previously taught this school year and are a continuation of the spelling word patterns that we would be covering in the traditional classroom setting. Since these spelling patterns encompass new learning spelling patterns, we included an instructional teaching video along with each new spelling pattern.*

Discussion of ELA Team (Week 4)

The ELA Team noted that students were again asking for more practice activities. In this final week, the team posted spelling activities to the Google classrooms.

The ELA team reiterated that the student responses continued to reflect the need for interventions in grammar and syntax as well. The team developed through the *Reading Street* text resources a weekly spelling list and appending instructional video. On Friday, the ELA team assessed the students on the spelling words using a Google Form and then provided

specific feedback through messaging and emails. Practice assignments could be corrected and resubmitted, but the spelling test could not be retaken.

In review of the data, the ELA team believed that the instructional model that had been in place was successful. The team also reiterated that the consistency of that model was critical to student performance in the distance learning context.

With regard to the effectiveness, the ELA team explained that the data showed a positive impact on student learning. The team wrote also that this instructional framework would be applied to the spelling to preserve consistency.

Math Team (Week 4)

1. Which lessons were paired with a homework assignment and why?

Every lesson is paired with a homework assignment, including this past week's lesson on "Fractions on a Number Line". As we know, currently all assignments are work that must be done at home due to our distance learning status.

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? *All lessons are self-guided at this point. There is a video lesson for students to watch that demonstrates the learning objective, a few examples, and an assignment follows. There is no opportunity to modify a homework assignment after the instructional video and before the assignment rolls out. We rely on communication from students via email or google classroom to make lesson modifications.*

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *The validity of student responses can be questioned because we have no idea who is actually answering the questions.*

We've learned to keep the format of homework/student assignments user friendly. We have learned that the multiple choice format is easier for 9 yos than open ended/short answer types. We've also found that google forms is a better choice than google slides. Cannot be deleted or altered.

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson? *I feel they were effective. Once again, we are relying on the student's ability to reach out with questions concerning the lesson. Also, we will never be completely sure whether it is the student or family member completing the lesson assignment.*

Discussion of Math Team (Week 4)

The Math team opened by writing that as had been the process over the previous three weeks, homework was paired with each lesson. Additionally, the team wrote that the distance learning model meant for students that all lessons were self-guided. The team posted an instructional video and supporting examples, followed by homework. The Math team shared that the homework could not be adjusted once the instructional video had been posted.

The team's data regarding student learning was gathered through student emails and messages and that the data was used to make adjustments to future lessons. Validity of the data from homework remained a concern for the team, as it is not known in this model if the student completed the homework or if another person may have completed it for the student. The team decided to employ multiple choice questions rather that open-ended choices for the assignments.

The Math team believed that the homework was effective and that the opportunity for students to contact teachers through emails and messages about the homework was important.

Teacher RS (Week 4)

1. Which lessons were paired with a homework assignment and why? *I had students complete another leveled book assignment and comprehension quiz. Each week I choose a book so that there is a rotation between genres (fiction and nonfiction), so that students gain practice reading with various text types and information. I feel that there are benefits to students comparing the differences between the genres and being able to remember writing styles and organizational systems. This could even guide writing development for students to utilize these experiences in their own writing. Sight word practice was an important component in ongoing practice for my students, who frequently need extra time spent reviewing on-level tasks. I want them to feel prepared for the next grade level's skill level and required work. Students seem to enjoy comparing their scores on sight word reading (scores in words per minute) from one week to the next. Students private message their scores, so that they are only in competition with their previous scores, not other students. Students seem to enjoy the competing element and it doesn't take them long to assess it, but it reviews essential skills and common words that students need.*

2. How does student performance during a specific lesson impact/change/ your plans for the homework designed for that lesson? *I look at student performance to assist with lesson planning and design. It will help to see which areas students need to have greater support and guidance with and in which areas there are academic strengths. This week I added an additional section of vocabulary instruction intended to be used prior to reading. I included this addition since I noticed that comprehension quiz scores with nonfiction selections are often lower than for*

fiction writing. Knowing the vocabulary and being familiar with the word meanings can help student understanding with the text information. The vocabulary activities were very interactive and set up as video games to enhance student learning. I also have plans of doing running records on the recorded readings that students have submitted. With recording student reading I can note where any difficulties may be and word patterns that may need a little more practice. It helps me to see if the selected reading level is a good match for the students' abilities and reading levels.

3. How did you use the information/evidence about student understanding that you got from the homework assignments in your planning and your teaching? *I wanted students to be able to read the stories assigned and practice the sight word assessments to see if students were capable of keeping up to grade level expectations. I established these practices in the hopes that student responses show that the learning is sequential and being integrated into other student ELA assignments.*

4. Were the homework assignments/tasks the students completed during the past week effective? Why or why not? If there was a task that was not effective, how would you replace/change/refine it for the next time you teach that lesson? *The past week's assignments were effective. Student questions and responses indicated that students were meeting English/Language Arts standards and achieving grade level goals. I hoped to support student movement into more complex and higher order academic and thinking skills with the assignments mentioned above. In future assignments, I hope to include more phonics instruction and review to further support student needs. I would also like to give students some suggestions for reading practice and websites to use for summer work to continue their learning over the summer break. In addition, I was able to set up individual parent notifications of student*

progress on the kidsa-z website. This is meant to inform parents of their child's overall progress with completed lessons and activities. It can also help parents to identify skill areas that need further development. With teachers and parents as partners, students benefit. This pandemic has shown that we truly need and depend on each other in our work to effectively educate children, both at home and at school.

Discussion of Teacher RS (Week 4)

Teacher RS followed the same lesson structure of a leveled reader, assignment and comprehension quiz. RS noted that the rotation of fiction and non-fiction readers reinforced the lessons that were taught prior to the closure. RS believed that the repeated comparison would result in students retaining the learning related to the two genres and may use those definitions as they attempted to write in those styles. Teacher RS also continued the assigning and evaluating of student performances on sight words, asking students to message Teacher RS directly with scores and speed times to avoid.

Lesson planning and designed were impacted by the student performances on the homework, RS explained. For example, RS added a vocabulary instructional component to Week 4 after reviewing student performance data.

Teacher RS explained that the objective was to observe and evaluate student reading and sight word recognition and compare those results to grade level expectations. RS believed that the both the lesson and assessment designs would demonstrate to students that reading is scaffolded and that it reaches into other content areas.

The data Teacher RS collected in Week 4 showed that students were making progress or meeting grade level expectations. RS planned to integrate more complex assignments and more

phonics work as well. To share some of the data with parents, Teacher RS sent a link to parents for the Raz-Kids website and granted access to student scores. RS closed by writing that parent engagement is crucial to student learning.

Summary of Data Analysis from Instrument 3.4

Using the descriptors from each team, the data was coded to determine the how frequently those definitions are mentioned in the four weeks of team responses. It should be noted that Teacher LS and RS were not on teams and did not participate in the development of the descriptors. Moreover, as this study was conducted during the pandemic in the spring of 2020, a second review of the data could be beneficial for reflecting upon the decisions made by teachers under the conditions of emergency remote learning.

Comparing Teacher Actions to their Stated Characteristics of a Good Homework Assignment

The data from Instrument 1 resulted in Figure 4.2 displayed here again for convenience. The Figure displays the descriptions of the characteristics of a good homework assignment by the two groups of teachers—the ELA team and the Math team. Comparing the actions of the teachers individually and by group to their stated beliefs about what constitutes a quality homework assignment, sheds further light on their individual beliefs.

Figure 4.2: Team Descriptions of the Characteristics of a Good Homework Assignment

Descriptors from the 3rd Grade ELA Team	Descriptors from the 3rd Grade Math Team
• Independent practice of classwork • Connection/reinforcement with family • Reflective for student and teacher • Review before test • Guides interventions and enrichment for individual instruction opportunities • Promotes the importance of deadlines for future career responsibilities • Preparation for new learning • Builds proficiency in new skills and maintains previously learned ones • Develops creativity and problem-solving	• Engaging • Is challenging and avoids mindless regurgitation • Timely • Has a clear purpose and is meaningful • Appropriate and directly relates to lesson objectives • Builds motivation • Ask students to show evidence, reasons, or to support • Provides appropriate examples (and non-examples) • Avoids wording in the instructions and examples that might confound students

ELA Team Descriptors:

- **Independent practice of classwork:** The team's practices did provide independent practice opportunities throughout the study. The team spoke in Week 1 of homework practices prior to the closure, and then established independent homework expectations that were specific and consistent. For example, students were directed to read two chapters of a novel each week, practice skills that had been introduced prior to the closure, and were also assigned both Study Island modules, grammar and spelling practice assignments.
- **Connection/reinforcement with family:** Though the ELA team described in the first week the importance of parent involvement, noting that parents signed homework and the assignments prior to the closure served as "another layer of communication with families of what skills were being taught and assessed", the team did little to reinforce for families what the

students are supposed to be learning. Rather, the ELA team's statements and practices revealed a communication focus with parents that centered on clarifying and sharing the directions for students to complete the homework.

- **Review before test:** The team's practices did align with this stated criteria. Consistently, the video and assignments, as well as the formative assessments, were designed to prepare students to complete the summative assessment for the weekly chapter comprehension test.
- **Guides intervention and enrichment for individual instructional opportunities:** The ELA team's practices demonstrated a strong alignment with this statement. Each week, the performance on the homework that was connected to the video and the chapter was used to determine which students needed more support and which students would be given extension activities. The team used the evidence from the assignments to respond individually through messaging and emails. An additional layer of practice was assigned using Study Island, an online program, and the team's review of student performance led to the installation of both spelling and grammar components based upon the collective student performance data.
- **Promotes the importance of deadlines for future career responsibilities:** The ELA team only wrote about this descriptor in Week 1. No direct connection to it was discussed in the succeeding weeks. This may be a belief they hold about what good homework can do, but the data collected here offers no support that this anticipated outcome results from the intentional design of the assignments, is supported by the feedback they provide, or even that it is shared with students or parents as one of the important aspects of homework.
- **Preparation for new learning:** Because the district's position during the closure was to focus on review and connection, the team's descriptions of "new learning" were found only in Week 4. During this week the team taught "new spelling patterns" and supported the instruction

using the model of an instructional video and appending homework practice. Though the team may have wanted to teach new concepts in this model, the team respected the directive and limited the weekly work to concepts that were previously taught. Indeed, the team was clear in its responses from the study that the instruction was reinforcement of skills and concepts taught in the time prior to the closure. Perhaps in the final week, the team felt confident in the delivery and the assessments to provide new instruction.

- **Builds proficiency in new skills and maintains previously learned ones:** The ELA team showed great commitment to this stated aspect of a quality assignment. Throughout the four weeks, the team revisited "skills…previously taught in the physical classroom". Each week's lessons were prepared with the district's directive of "no new instruction" during the closure. The lessons and the student practice opportunities were anchored in the content that the team had taught in the school year. The team remained consistent in the application of the directive to only focus on what was taught in the physical classroom prior to the shutdown.
- **Develops creativity and problem-solving:** This is another aspect of homework that appears to be aspirational but not planned or intentionally reinforced through assignment design, teacher feedback, or communication with parents. There were no clear instances of promoting creativity in the responses provided by the ELA team during the study. And, there was no description of the aspects of the assignments that showed whether or not students could appropriately problem solve.

Math Team Descriptors:

- **Engaging:** Though the Math team indicated that engaging work was important, no references to student engagement were written in the team's responses. No clear examples of

how the homework was designed with engagement as a component of the work during the review of the data in this study.

- **Challenging and avoids mindless regurgitation:** The Math team chose this descriptor at the outset of the study, but this descriptor was not revisited by the team as it responded to the questions in the study. No references to challenging work or avoiding of regurgitation of math facts was written by the Math team.
- **Timely:** With respect to timeliness, the team assigned paired the lesson with homework each time. Support for the homework was given to students in a timely manner, as the team would respond to emails and messages as well as initiate communication regarding student performance based upon the homework. The Math team corrected and provided feedback each time the work was assigned by the next meeting. The data was used formatively by the teachers. Math-1 wrote that in that homework evaluation that if many errors were found in the homework responses, "I reteach the lesson that day."
- **Clear purpose and meaningful:** The Math team indicated that the assigning of the homework was purposeful and meaningful. To support this assertion, Teacher M-1 elaborated on this, explaining that the choice of the new math series was made in part because of the strong connection between the instruction and the homework, and later writing that the "homework was assigned to reinforce the skills and objectives of the week." However, it should be noted that the team assigned homework to each lesson regardless of student performance.
- **Appropriate and directly relates to the objectives:** The team valued this component of the textbook adoption. This was written by the team on many occasions throughout each week, and was tied into responses regarding the meaning and purpose of homework. The team returned to the tenet individually and as a group in each week.

- **Builds motivation:** The Math team selected this descriptor but seemed not to be able to connect it to the homework that was lashed to the lessons and provided by the text series**.** No direct comments about the effects of homework on student motivation were identified in this portion of the study.
- **Asks students to show evidence, reason and support:** Though the team clearly felt this was important, the team wrote that in Week 2, the team departed from the math series worksheet with open-ended responses and adopted multiple choice answers to limit student frustrations with typing answers. The team mentioned in Week 2 the difficulty in applying the workbook pages to the Google Classroom so that students could write in their responses. This challenge in the technology may have affected the ability of the team to hold to this descriptor in the virtual setting.
- **Provides appropriate examples (and non-examples):** Because the Math team relied upon the series, the examples were included on the assigned work and also the appending instructional video. This was consistent throughout the four weeks of the study. In each lesson, the team referred to the series as providing solid examples of the equations for the students to review prior to the homework.
- **Avoids wording that might confuse of confound students:** The Math team explained that the work was taken from the series, and that when students were unclear about the directions or expectations, the team would address those questions through messages and emails. However, Teacher M-3 added that "if a student does not make us aware of an issue that they are experiencing, we are unable to provide the necessary interventions." The team also felt concern that work that was done away from the teachers may not be the work done by the student, but rather someone else.

Instrument 4

The fourth instrument was designed to collect data to address research question 3: *Are their beliefs impacted by their critical reflection on and self-evaluation of their own homework practices?*

The data were collected from the 3rd grade team were two open-ended questions regarding the steps that the teachers or teams had taken to increase the effectiveness of the homework assigned virtually during the pandemic and if the teachers or teams recognized a change in homework practices as a result of this weekly reflection on the effectiveness of those assignments. In both requests, specific examples were asked of the teachers or the teams.

The responses from each teacher or team are presented below in order of the questions asked. Teams are identified and identified by codes assigned to them in the data analysis map (See Figure 4.1). The verbatim responses are the teachers and teams are displayed in italics. Each teacher's or team's responses are discussed. Finally, the responses and examples of all participants is summarized.

ELA Team

1. Describe the steps have you taken to increase the effectiveness of the homework you assign to your students. Provide specific examples to illustrate your points. *Prior to Covid 19, homework for ELA consisted of sending home a physical Family Times Newsletter and an electronic version through the REMIND APP. This Family Times Newsletter gave an introduction and could be used to reinforce each ELA's unit skills taught in class and included vocabulary definitions and spelling words that reflected upon our phonics pattern. Students were encouraged and instructed to study/review this unit's skills nightly and to come to class with*

questions. Two days prior to the unit's culminating assessment, review activities were assigned. These review activities provided parents and students both the opportunity to know and practice the skills taught that would be assessed in a quick, limited question approach, We would then check and review these activities prior to the assessment in order to know who needs individualized additional instruction or enrichment opportunities and in what areas. This across our ELA team systematic approach was utilized with every ELA unit to provide students and parents both with a consistent routine. Throughout the years of our team ELA instruction, we have and continue to tweak our Family Times Newsletter and review activities to provide the most effective, relevant, PACORE aligned practice opportunities in using a limited time constraint method. Our homework/ classwork activities and focus shifted entirely with the onset of Distance Online Learning in order to promote the most effective methods and opportunities possible with the realization of parents now assisting children, children completing activities without hands on adult guidance, and students without or limited technology access. Currently and since Distant Learning began at the start of the 4th nine weeks, a specifically selected, read along third grade novel with skill review, multiple intelligence based, analytical, and critical thinking personal questions activities have become our ELA classwork focus. Optional Grammar spiral review activities, continuation of Social Studies map skill curriculum, instruction and activities, as well as continuation of our spelling pattern skills in an optional interactive daily practice format, and online Google Forms multiple choice weekly spelling test were included.

2. Describe how your homework practices changed to make them more effective. Provide specific examples. *In continuation to question 1's answer, a more in-depth description of our Distance Learning approach will be provided here. The novel that was selected first to make our team's Distant Learning most effective was Sideways Stories from Wayside School by*

Louis Sachar. This novel is at a GRL P, DRA Level 38, and Lexile Level 460. It is also a fictional, humorous, enjoyable story that grabs students' attention as well as entertains them which we felt would keep students interested and engaged. It is about a school accidentally built 30 stories vertically instead of horizontally and its mixed up staff and students. This book is recommended for the end of a third grade school year. Online, students viewed each chapter in a read aloud format by showing each page of the novel as it was also read aloud which in turn helped our readers who struggle or are learning support students as well as demonstrated fluency for our on-level readers. In addition, this method could be muted for the advanced readers. The activities that accompany each chapter include previously taught skill comprehension strategy questions such character analysis, compare & contrasting; summarizing, making predictions, making inferences, making real life connections, asking & answering student questions before and after chapters; personification, and personal reflections about the chapter story elements. Online learners, turned-in individualized assignment feedback for each assignment. This technique allows for us to assess students' learning and understanding of each of these areas previously taught and provide guidance, intervention, or individualized instruction in a particular area if needed. For students with limited or without technology, a physical copy of the novel and activity sheets were mailed home with a daily schedule to be dropped off at the school when complete. Additional Optional activities in the subject areas of grammar and spelling were added as the online learning continued. We, as an ELA team, identified the need to review previously taught grammar conventions due to grammatical errors that students were demonstrating in their reading assignments. Therefore, we included grammar spiral interactive click and drag weekly review practice. These activities were made optional because a few students did not need to revisit all of these skills, and we wanted our online focus

time daily allotment time which was provided from our school district's focus to be on reading skills and comprehension. We also, as a team, decided to continue our weekly spelling patterns that we would have been teaching in the traditional classroom setting. Instruction was provided for each pattern using a video, a video demonstrating how to complete the 5 weekly spelling activities, and then at the end of the week, utilizing a multiple choice spelling test as an exit assessment. Social Studies curriculum online continued as it would have in our traditional classroom setting. We provided instructional videos, interactive practice activities, and a mini quiz on Google Forms as an exit ticket and tool for us to view if the skills were mastered or not. Overall, we felt consistency of activities in all subject areas regarding the assignments was our most successful online learning tool.

Discussion of ELA Team

The ELA team shared first how the team approached instruction and assessment prior to the closure. The team incorporated the "Family Times" newsletter to as an additional resource for practice relating the taught skills and concepts. Before the unit's culminating activity, the team assigned review work that provided parents with an understanding of the expected assessed skills and also provided students with another opportunity to learn and prepare for the assessment. The team expressed that this model had been effective in their collective view, but that in the distance learning structure, much of what they had done in the classroom would need to be modified.

For the last nine weeks, the team selected a fiction novel to serve as the vehicle for reinforcing the previously taught skills. The ELA team recognized the inherent difficulty of teaching, and learning, in the distance learning model. To mitigate some of this difficulty, the

team planned to follow the same model of instruction through the online tools, including the reinforcement of previously taught writing, grammar and spelling skills.

Students accessed the novel digitally through the Google Classroom. A video with voice-over reading of the chapters was posted for students who needed additional support. The homework assigned was reviewed by the team and then intervention and enrichment assignments were posted for the individual students. This model of instruction was also employed by the team for Social Studies instruction to ensure consistency and familiarity.

Math Team

1. Describe the steps have you taken to increase the effectiveness of the homework you assign to your students. Provide specific examples to illustrate your points. *To maintain the continuity of our math curriculum, we have continued to use our third grade math workbook. Initially, the biggest challenge was figuring out how to format an online assignment in any manner possible. Utilizing Google Slides for short answer assignment questions proved difficult for our students at the beginning of distance learning. Offering their assignments in a multiple choice Google Forms format appeared to facilitate the assignment submission process.*

2. Describe how your homework practices changed to make them more effective. Provide specific examples. *We made a concept-specific instructional video a component of every lesson. Additionally, we have made ourselves available to students/parents for instructional assistance throughout the day and evening via school email, Google private message, and Remind messaging.*

Discussion of Math Team

The Math team selected homework from the 3rd Grade Math workbook. The team's response challenge in effectiveness focused upon the adaptation of the workbook to make it accessible for students in the distance learning model. Specifically, the team also addressed the ability of the students to share their answers on the homework, changing the responses from short answer to multiple choice.

To express the team's changes to their practices, the Math teachers shared that the team developed content-specific videos for each lesson. Moreover, the team made itself available throughout the day and evening to answer questions and support families through email and messaging.

Teacher RS

1. Describe the steps have you taken to increase the effectiveness of the homework you assign to your students. Provide specific examples to illustrate your points. *As teachers continue to work with students using distance learning methods, it is imperative that assignments are designed to further a student's knowledge of and application of key academic concepts. In preparing ELA assignments some steps that I've taken to increase homework's effectiveness include making assignments more personalized (based on students' ability levels and interests), involving parents as a support to students, and giving assignments that require a student to demonstrate the ability to use the information learned from the work they've completed. For example, stories that are selected for students are frequently chosen because they are topics of interest to a particular grade level and are aligned with the reading level goals for students. Parents are also given tips and suggestions for working to help their child or children complete*

tasks online and are given access to their child's work completed, quiz scores, and activity level for a specific website (kidsa-z.com). Finally, work that is turned in is subjective and requires students to understand material and then apply it by answering multiple choice and open-ended questions.

2. **Describe how your homework practices changed to make them more effective. Provide specific examples.** *My specific homework practices have changed during distance learning to make them more effective. First, homework has been more frequent, to allow for students to develop greater fluency and increase their time to practice reading leveled books and sight words. Student work is also carefully paired with grade level expectations and curriculum goals in mind. As we near the end of the school year, I want students to feel prepared for the grade level they are about to enter. I am also planning to add ideas for learning activities for students to complete over summer break. Finally, the work that is assigned is viewed from the students' perspective, in the hopes that by limiting the amount of work, students will invest their best effort in completing it. Quality is considered more important than quantity when it comes to the results we want students to demonstrate and achieve. By selecting only the most effective activities, students will utilize best practices for their learning and take on a sense of ownership, since they have been required to be so much more independent in the learning process.*

Discussion of Teacher RS

Teacher RS defined the steps taken to improve effectiveness in homework in the distance learning model through personalization of the assignments for students. This included considerations beyond instructional levels. For example, Teacher RS collected information

regarding student interests. Teacher RS also wrote in detail about the importance of homework in the context of parent involvement. To support parents, RS shared additional directions for the assignments to families and provided access to all student performance data through the online services.

RS believed that increasing the frequency of homework in the distance learning model made the homework more effective. Teacher RS explained that the frequency improved the fluency and accuracy of students in reading and spelling. Viewing the homework from a student's perspective was also important to RS with respect to choosing the right amount and type of engaging activities. In this way, RS felt that student performance would be more reflective of student learning.

Teacher LS

1. Describe the steps have you taken to increase the effectiveness of the homework you assign to your students. Provide specific examples to illustrate your points. *I have examined the responses that the students have submitted. From there I was able to determine if the students demonstrated either a concrete or lack of understanding. That allowed me to develop a plan to proceed. If the students demonstrated a solid understanding of the concept I was able to provide them with an assignment that challenged them a little more, or made them apply the concept in a different, more meaningful way. If they demonstrated a lack of understanding, I provided them with a reteaching session geared to that particular student. I then was able to provide them with another chance to show me they have now developed an understanding of the skill.*

2. Describe how your homework practices changed to make them more effective. Provide specific examples. *When I was altering assignments I made them apply more*

personally to the specific student. For example, one of my students really likes sharks. When I gave him an alternate assignment dealing with fractions, the theme of the assignment pertained to sharks. This allowed the student to be more engaged in the lesson because of their interest. I found when I was able to do that, the students demonstrated a stronger skill development.

Discussion of Teacher LS

Teacher LS carefully reviewed student responses to homework and evaluated that data to determine how much intervention or extension the class and individual students needed. For some students, reteaching in personal sessions was the course of action. For others, challenge work was given.

LS also wrote about the customizing of homework for student engagement. In one instance, LS designed a lesson on fractions and homework assignment using sharks, as LS knew that this student was very interested in them and would respond accordingly.

Summary of Data Analysis from Instrument 4

The data from Instrument 1 resulted in Figure 4.2 displayed here again for convenience. The Figure displays the descriptions of the characteristics of a good homework assignment by the two groups of teachers—the ELA team and the Math team. Comparing the reflections of the two content teams and two support teachers to their stated beliefs about what constitutes a quality homework assignment provides a deeper and more complete picture of their beliefs regarding homework in the closing weeks of the 2020 school year.

Figure 4.2: Team Descriptions of the Characteristics of a Good Homework Assignment

Descriptors from the 3rd Grade ELA Team	Descriptors from the 3rd Grade Math Team
• Independent practice of classwork • Connection/reinforcement with family • Reflective for student and teacher • Review before test • Guides interventions and enrichment for individual instruction opportunities • Promotes the importance of deadlines for future career responsibilities • Preparation for new learning • Builds proficiency in new skills and maintains previously learned ones • Develops creativity and problem-solving	• Engaging • Is challenging and avoids mindless regurgitation • Timely • Has a clear purpose and is meaningful • Appropriate and directly relates to lesson objectives • Builds motivation • Ask students to show evidence, reasons, or to support • Provides appropriate examples (and non-examples) • Avoids wording in the instructions and examples that might confound students

Considering the Responses of the ELA Team

The ELA team was consistent with many of its beliefs throughout the study in regard to the instructional pattern and types of homework given. Evidence was found in their weekly responses and the final reflection that support the following ELA descriptors:

- Independent practice of classwork
- Connection/reinforcement with family
- Review before test
- Guides interventions and enrichment for individual instruction opportunities
- Builds proficiency in new skills and maintains previously learned ones

The adjustments made throughout the four weeks were based upon how the instruction was delivered and how students responded. The team acknowledged the challenge for the

students to show their learning in this new way and made several changes in the data collection to address that issue.

The ELA team also listed the following descriptors that were not as evident in their actions during the study:

- Reflective for student and teacher
- Promotes the importance of deadlines for future career responsibilities
- Preparation for new learning

It can be inferred from the data collected in the survey that the team's beliefs about the purpose and value of homework remained constant. The team's changes to homework were functional—how the students responded or how students showed their understanding. The team did not indicate that the data from the homework guided the instruction as it was taught but rather how the data applied after the lesson to determine the type of support or extension activity that would be assigned to the students. Student performance does not seem to have played into the team's reflection on the quality or appropriateness of the lesson, but rather the student's performance following the online instruction.

The team respected the district's directive to not provide new instruction during the closure, and this may have been a factor in the team's decision regarding the reflection on the lesson. The team's actions demonstrate that their efficacy was based in what they knew and had been doing prior to the closure, and that if there were challenges in this new model, those issues were external, and not indicative of the quality of the teaching or the tools of assessment chosen by the team.

Additionally, the team's adherence to their model shows that they were true to their beliefs about the importance of consistent and predictable lesson structures. The team repeatedly returned to that point in the study. The concern for the ELA team seemed to center on the making certain that with all of the many changes that the students and families were experiencing, the familiarity of the instruction would be comforting for students and parents alike.

Considering the Responses of the Math Team

The Math team was consistent with many of its beliefs throughout the study with respect to consistent application of homework tied to the instruction. Evidence was found in their weekly responses and the final reflection that support the following Math descriptors:

- Timely
- Has a clear purpose and is meaningful
- Appropriate and directly relates to the lesson objectives
- Provides appropriate examples (and non-examples)
- Avoids wording in the instruction and examples that might confound students

The Math team did make some adjustments in the course of the four weeks relating to the methods of lesson and homework delivery. The team's adaptation of the worksheets to allow multiple choice answers as opposed to the short answer responses show the team's recognition that the distance learning model created challenges for students and teachers alike. This adjustment to the homework does not inform instruction in the delivery process, but rather provides the team with formative student data for intervention and enrichment. It does not appear

in the team's responses that the student performance data had any impact on the construction or delivery of the content.

Summary of the Analyses

A summary analysis of individual and team responses was conducted to search for emerging themes. The researcher conducted close reading of the text looking for patterns of meaning, underpinned by a central organizing concept or shared idea. The researcher, guided by the research question, identified key features of the data in order to organize and report the researcher's analytic findings (Clarke & Braun, 2017). During this iterative process the researcher also looked for missing information (George, 1959) and developed metaphors (D'Andrade, 1995) from the responses to identify or flesh out the themes, that through repeated readings, became evident and supported during the researcher's consideration of the data.

The analysis yielded four themes: 1) A rock and a hard place, 2.) Work done at home is a flawed source of information; 3) Reteaching as intervention; and, 4) Expectations versus reality. Each theme is explained in turn. Additional areas of research follow at the conclusion of the four findings.

Theme 1: A rock and a hard place

Teacher and team responses about homework indicated that because of the distance learning model, teachers and teams felt powerless regarding their ability to teach effectively and to teach the content they were prepared to present. Their struggles centered on several factors seemingly out of their control. First, they were not provided professional development to enhance their online instructional skills. Second, instruction was difficult because students were

unable to access their texts, workbooks and other materials from school. And, finally, during the closure, the district gave teachers the directive to limit their focus to reviewing previously taught material and staying connected with students. The teachers respected and followed the directive of "no new instruction", as evidenced throughout their responses. For example, the ELA wrote during Week 1 that, *"Attached to each chapter were 3-6 skill analysis previously taught in the physical classroom"*. Responses considered in this theme expressed ideas like consistency in the format of lessons and homework, the frequency of the assignments, and the responses to student performance. These responses were common across all three teams (Math, ELA and Specialists).

Responses also included descriptions of alignment to curriculum, timeliness of teacher feedback related to this assignment and the reinforcement of correct models. Teacher M-1, for example, wrote that homework is "not just busy work" and in M-1's statement of evidence that supported the effectiveness of the assignment, M-1 added "*I feel homework has a negative connotation attached to it. I find it to be a valuable tool in my educational process*." While the response does not address with any specificity how or why the assignment is effective, the statement does provide insight into the deeply rooted beliefs this teacher holds regarding the value of homework. Shulman (1987) is referenced by Orton (1996) regarding this belief system, defining justified belief in teachers as "a special amalgam of content and pedagogy that is uniquely the province of teachers, their own for of professional understanding" (p. 133). Orton's research notes that a teacher's views about student learning that are "justified" or deeply held beliefs can be in direct conflict with the student's view about learning, from purpose to performance and value (1996, p. 134-135). M-1's conviction that homework is valuable and

provides students more than just practice, while not providing justification for the quality of the homework itself, provides important insight into M-1's beliefs about homework.

Attribution Theory also serves a significant role in unpacking this theme. Weiner's work (1972) describes and matches the behaviors of the teachers in this uncomfortable and unique circumstance, noting that to whom or to what the subjects ascribe the responsibility directly impacts future actions (p. 203). In this case, the decisions were not theirs, and therefore, they were simply following orders. In effect, the teachers felt that they could be their best because the directives, the distance and the technology each worked against them to varying degrees.

However, the directive given to the teachers from the administration (no new instruction) did not preclude teachers from innovating how they taught the familiar content; nor did it limit how teachers could monitor, assess, and self-evaluate their practices. Moreover, the evidence that the teachers collected from the homework was employed to determine student learning, but not considered for reflection on the quality of instruction nor the type or amount of assigned work. In week 1, Teacher M-1 shared that the homework was taken directly from the new math series, and that the series was chosen in large part because of the team's belief that the series was of high quality because it delivered the *"right amount of practice."* When asked in Week 2 how student performance impacted change in the lesson, Teacher M-1 responded that "*homework was assigned regardless of the students' performance*".

Underlying this theme of feeling helpless is the reality of opportunities missed. Although the teachers recognized that this mode of instruction was not the norm for the teachers, parents and or students alike, they did not entertain the idea of diverging from their old ways of thinking about independent practice. In their responses they expressed their belief that they were inadequately prepared or positioned to evolve to meet the challenges inherent in distance

learning. They struggled with ways to deliver of instruction, methods of assessing student understanding within homework, or what evidence they could use from the homework to inform their teaching practices.

As individuals, teacher beliefs were supported by low self-efficacy. For example, in Week 4, the ELA team reiterated that the *"consistent format was key to the success [of the students]."* It was important to ELA team that the students find familiarity in their distance learning lessons and homework, but it would also seem that the ELA team felt the same need to provide in familiar ways for their own sense of efficacy as well.

The Math team, too, noted the importance of consistency for students in their answers during Week 2, writing that *"[w]e've learned to keep the format of homework/student assignments user friendly."* Their distance lessons, assignments and structures are nearly identical to the lessons, assignments and structures of brick-and-mortar instruction. Bandura (1994) notes that an efficacious person sees the challenge as just that—a challenge—and attributes a defeat to a lack of knowledge or personal preparation, both of which can be corrected and improved upon (p. 1). While both teams felt a strong level of collective efficacy about their instructional strategies and regarding the effectiveness of their homework, both teams showed low efficacy in their use of the distance learning tools and preparation for teaching in that model. In effect, they trusted their educational experience, and not their delivery experience.

Weiner's work reinforces Bandura's writing in this area. Weiner (1972) writes that causal attributions (including internal and external loci of control), intensity of effort and persistence in the face off difficulty all directly affect one's decision to attempt challenges (or one's self efficacy). The teams pointed to the restrictions of the district directive, the desire for consistency

and the difficulty of instruction through the technology as cause for their unwillingness to innovate and reimagine their homework practices.

Theme 2: Work at done at home is a flawed source of information

The teams and the specialists wrote often of the challenges that come with measuring student learning in the distance learning model. The ELA applied several homework strategies to collect student proficiency data, including Google Form exit tickets, Study Island online leveled practice, and spelling, grammar, comprehension and writing assignments. The factor that the ELA team returned to again and again was the impact that the technology had on the students' performance. In one response, the team worried that the technology was negatively affecting student performance as the online responses were unfamiliar to them. In Week 2, for example, the ELA team noted that *"one question this week asked students to draw what they visualized for a particular scene using the drawing tools on Google. This seemed to be a challenge for many students." The team adapted the question to allow word descriptions or drawings to imagine the scene. The ELA team also noted in Week 2 that because the type of equipment students were using to access the distance learning lessons varied from home to home, some homework was difficult to complete. IPads and iPhones were especially problematic from the team's descriptions. To mitigate this, the ELA team wrote that "we added directions that student who had difficulty (clicking and dragging the squares in the interactive activities" could either create their own answer box by making a textbox to answer the questions or use the pencil line too to drawn lines to connect their answers*." Teacher M-3 also noted that *"a significant challenge presented by the nature of distance learning is our inability to know whether or not a particular student's low performance is the result of a technological issue or that of a conceptual*

misunderstanding." Though M-3 expressed concerns about this issue, it did not seem to change the team's assigning or collecting of the homework throughout the study.

Changes to the assignments and constant feedback were reflected in the ELA team's responses to those issues, but the team remained concerned throughout the study. The ELA team in Week 2 incorporated "*exit tickets to check the student's mastery of skills…we, as teachers, would check his/her interactive practice activities and provide feedback to each individual student*" as part of the feedback given, but also shared responses through emails and messages.

The Math team shared the ELA's concerns but also wrote that they wondered if the work that they assigned was completed by the student or someone else. In weeks 2 and 4, teacher M-3 and the Math team respectively commented on the strength of the evidence they collected. Specifically, the Math team in Week 4 wrote in response to the question "How did you use the information/evidence about student understanding in your planning and teaching?" that "*student responses can be questioned because we have no idea who is answering the questions*." In the same week, in response to the question "Were the homework/tasks the students completed during the past week effective? If there was a task that was not effective, how would you replace/refine it for the next time you teach that lesson?" the Math team added that "*we will never be sure whether it is the student or family member completing the lesson assignment*".

The belief that homework is critical to student learning is deeply engrained in the teachers individually and collectively. Time and time again, the team reinforced that homework was essential to learning, yet when the entire school moved online, the teachers found various flaws with the evidence that student work provided. Peirce's theory aids in examine what their responses reveal. The beliefs teachers hold strengthens the assertion that these tenets of their professional practices are often more focused on what the teachers do and less upon what the

students learn. Peirce would maintain that while a teacher's self-efficacy is a crucial component for student learning, those same teachers may overvalue that experience and may also be unwilling or unable to allow for genuine doubt. Their beliefs about their ability to effectively instruct students impairs their ability to recognize that their ability is not static but dynamic, and not acquired but rather cultivated. Indeed, the irony is that teachers should instead remain learners as children are—open to new ideas and willing to consider them without judgment (Legg & Strand, 2018, p. 3-4). Bandura (1994) outlines the four ways of increasing self-efficacy as mastery experiences, vicarious experiences, social persuasion and reducing stress reactions to physical states (p. 1-3). During the closure, none of those ways seemed possible for the teachers or the teams in any consistent or meaningful way. It would seem logical that they did not pursue best practices or reflect upon current models because none of the ways that they could grow in those areas while separated. Teachers must continue to be curious and to seek new and better ways of teaching and assessing students, and not be satisfied that what has been working is above reflection or improvement.

The teachers continued to assign homework confidently, and yet, they were clear in their admission that the work the student submits may not be actually done by the student. The idea that the student's work may have been completed by someone else did not dissuade teachers from assigning daily homework, collecting the data associated with it, and making decisions about student readiness and student learning from it. The ELA team in particular leaned heavily into diagnostic software like Study Island because it identified achievement levels and then "assigns a correlating activity". This did not mean that the team gave less of their own homework, but rather it may suggest that the team's mistrust of the data meant other data sets

would be needed. They didn't stop giving the work or change it—they simply added another data source.

Consider too the idea of collective efficacy and its impact on the decisions of the teams. Gray and Summers (2015) establish collective efficacy in a professional learning community as the team's ability as a group to plan, deliver, assess and adjust teaching and learning for students to attain higher levels of performance (p. 64). The team's beliefs, founded upon individual levels of trust in and among the members, further entrenches the practices upon which the team has conjointly developed, maintained and delivered together. Prior to the closure, the teams responded consistently that homework was a bulwark of their teaching and assessing. Conditions for the ELA and Math teams to now question their collective efficacies regarding the effectiveness of homework during this unprecedented moment in their educational journeys, and indeed the world, was simply a bridge too far.

Theme 3: Reteaching as intervention

In nearly every response from every teacher and team the homework was reviewed, graded and feedback was provided to students. For those who had not been successful on the homework, reteaching and opportunities for additional practice were assigned. The ELA team in Week 1 wrote that *"students individually who had difficulty with a particular question or skill received individual private instruction through messages and chat so that they could achieve success."* Teacher M-3 also noted that *"teacher feedback and/or questioning is necessary on a regular basis in order to determine if a lesson was impacted or needs changed.*" Interestingly, however, in Week 4, the onus shifted away from teacher-driven checks for validation of learning and instead, the team wrote, *"We are relying on the student's ability to reach out with questions*

concerning the lesson." Teacher M-1 added in the response to the question "How does student performance during a specific lesson impact/change your plans for the homework designed for that lesson?' that *"Homework was assigned regardless of the students' performance."* Kohn (2006) notes that for most teachers, the assigning of homework isn't related to times when it would be appropriate and important, but rather it is assigned as a matter of pattern (p. 13) Consistently, the ELA team seemed fully committed to collect data to select and sort students based upon their performances, or to meet the previously established, pre-COVID pattern of assignment. The Math team seemed committed to assigning homework with lessons as prescribed in the text. But what neither team described in detail was how reteaching would address the issues identified in the student homework.

The ELA team wrote in Week 2 that some of the assigned independent practice could be repeated, positing that "*sometimes, students were given additional instructions through private messages, asked to make corrections and resubmit prior to taking the exit ticket…independent interactive practice could be repeated."*. This does not answer what would happen, however, if a larger number of students were struggling with the homework. How would the instruction for the group would change? It would again seem that the beliefs teachers hold and the collective efficacy of the teams work both for, and against, the students and often against the teachers themselves. For the teams, the notion that the initial instruction could be the cause for lower student homework scores does not seem to be a consideration. Cunningham, Schreiber and Moss (2005) discuss Peirce's thinking on logic and the reasoning behind the behavior of humans relative to their experience and how that experience becomes truth. People rely on the systems and responses that have been successful in their respective pasts. Those experiences from an outsider's perspective may not make sense, but to the person living in those contexts, the

situation and response are logical and reasonable. The inverse, then, must be that if there is one exists in a place of situational logic, there must also be a place where that situation is not logical, where doubt is possible (p. 197).

Perhaps the reason why the teachers could not see that reteaching is not truly improvement of instruction unless it is informed by data, formative and reflective, and is unlikely to provide better learning outcomes for students might be related to the fact that they could not doubt that their experiences, even in this new context, were so different from what they knew in their brick-and-mortar settings. Their beliefs were not irritated to shift them to a stage of genuine doubt so that they could struggle to transform their beliefs in order to return to a state of equilibrium. Though they recognized that everything had changed, they could not change their beliefs about their teaching or student learning, even in an unfamiliar system and during a global pandemic.

This is not a value judgment on teacher commitment or professionalism, but rather a consideration of the depth of belief in the experience and the collective efficacy of the teams as well as an acknowledgement that teacher preparation was not sufficient and technology issues negatively impacted the model.

Theme 4: Expectations versus reality

The closure of the brick and mortar schools and shift into distance learning did have an effect upon teachers and learning in many ways. During a close reading of the teacher responses, there was a category of responses that was never considered. One of the concepts that did not emerge in the responses of teams was challenges of homework that were especially connected to

the lives of students who are disadvantaged. This theme also reflects teacher beliefs regarding the ability of families to engage and assist with student distance learning.

The poverty rate for the district was 52% in the spring of 2020. Though many of our students had some access to the internet and to appropriate technology, others did not. The district provided technology to families in need with two distribution dates in the spring during the closure. Nearly every student was able to access teacher Google Classrooms to access videos and to message or email.

In several responses throughout the study, the teachers and teams wrote about the roles that parents and guardians were expected to play in the distance learning model. It would be important to communicate with parents and students about what the schedule would be, the types of homework that would be given, due dates, and more. The teams and teachers worked diligently to establish lines of communication for support and to directly intervene with students using email and messaging. The ELA team wrote of this, for example, that though they understood the challenges facing parents and students with busy schedules, the expectation would remain that just as in the pre-closure structure, homework would be assigned with the "*realization of parents now assisting children, children completing activities without hands-on adult guidance, and students without or limited technology access.*"

All of the teams shared that homework was assigned with every lesson and feedback was provided in a timely manner. Though the work was asynchronous, it was clear from the team responses that due dates for homework followed the completion of the lesson in much the same timeframe as had been structured in the brick-and-mortar setting. Moreover, many of the problems ascribed to homework in the distance learning model existed in the brick-and-mortar setting as well. The teams and the teachers seem to recognize that the difference between the two

settings may lie not in the homework directly, but rather in the completing and submitting of the work online. Their beliefs about homework did not change but the teachers and the teams were aware of the additional layer of difficulty the students returning the homework to them.

Weiner (2000) notes that in Attribution Theory, intrapersonal and interpersonal motivations tie directly into a person's determination of success or failure. When one is successful, Weiner notes that intrapersonal motivation does not often result in the question of why, but when one experiences failure, why becomes much more important for ascription of cause. A teacher who struggles to teach or assess in the distance learning model may feel a sense of inadequacy or guilt; however, the locus and controllability in this context may be external (the closure of the school due to the pandemic and limited professional development). The understanding that these external factors are uncontrolled and unstable results in emotions ranging from anger to disassociation (p. 2-5).

As the district directed the decision to not introduce new content and to instead focus on review of previously taught concepts, it is reasonable to accept that the team responses to these directives would be external, unstable and uncontrollable, and therefore, the issues resulting from these circumstances were not of the teachers or the team's making. Accordingly, their responses seem to match this thinking, and may also support their reasons for remaining resolute in their beliefs about homework, their teaching practices and their expectations for students and families to complete and return homework in much the same manner as had always been the way in the past.

What is not considered in the responses throughout the study is the understanding that this model was, and is, inherently unfair. Generally, rural teachers tend to have more teaching experience than urban teachers but conversely have less advanced education degrees.

Additionally, rural teachers seem less likely to receive quality professional development due to their resources and location (Jordan, 2016, p. 5-6).

Potential Implications and Needed Research

The data collected in the instruments both clearly articulates the thinking of the teachers while also providing more questions and areas of consideration. The following sections describe those sections more detail.

Parent Roles in Homework and Equity

Discrepancies among levels of parental support may compromise the quality of the learning evidence homework represents. In a district where better than 50% of students are considered to be living in poverty, assumptions about the ability of caregivers to assist and participate in homework is a significant issue for teachers. Poverty is a marker of Critical Race Theory and research tells us that there are important advantages for students who have parents who assist them with homework. It is not availability alone that teachers must consider. Many parents who might desire to assist their children may face language barriers if they are not fluent in English, or may be unable deal with the concepts since they have a grasp of those concepts due to gaps in their own education. Clearly awareness of the need for students to be able to work independently is admirable, but it is crucial for teachers to think in more nuanced terms to help level the playing field and promote equal opportunity in terms of parental influence on learning outcomes (Orr, 2014).

The assumption that the majority of the students will even some solid and reliable academic supports in the home is not likely. And while homework is only one aspect of the

learning conditions that promote or derail learning, each instance of inequity is cumulative. This assumption represents a dangerous belief that could exacerbate existing learning gaps by counting on human resources that do not exist in the majority of the students' homes. Many times, the family's socio-economic status impacts parental ability to assist with homework assignments. The impact of poverty on students and the inequity that permeates the school system can have detrimental effects overtime. Students who are inequitably served in the public schooling system suffer from lower test scores, higher dropout rates, lower post-secondary school completion and lower lifetime earnings (Long, 2019). Gonida and Cortina's 2014 study of the differing types of parent involvement (autonomy support, control, interference and cognitive engagement) shows that autonomy support is the most impactful. Autonomy support provides the right balance of parent involvement and student self-efficacy. However, in the limitations, Gonida and Cortina (2014) note that the parents examined in this study were expected to be highly engaged in the homework process (p. 392). This assumption of parent engagement cannot be made in every context. Gonida and Cortina (2014) note in the limitations of their study that parent self-efficacy is not measured. While the expectations that parents will be active in the assignments, their ability to do so well, or do so with confidence, is an area that needs further exploration.

Attribution Theory and Self-Efficacy

Attribution Theory provides another lens through which we can analyze some of the assumptions of the teachers. For example, M-2 writes in Instrument 2 that if a student cannot complete the homework with a high degree of success that it "tells me a lot as well." This would mean that the teacher sees this conditions as outside of the teacher's control since the teacher

cannot change the efforts students make outside of the classroom, nor the commitment of parents to support learning at home. In this way, the teacher can be free of introspection or the need to focus on personal actions like assessing and improving the quality of the instruction to promote the student's ability to indeed complete the homework with success (Weiner, 1978, p. 3).

Weiner (1996) further delineates this, detailing that within failure, the causal factor of controllability (how much influence the individual had upon the outcome) plays significantly into the response for consequence (p. 201). Especially for students who are receiving additional support for specific learning needs, this is a critical element for Teacher LS to understand and navigate. Ready-made reasons for failure outside the student's locus of control abound when students are asked to show growth on a challenging concept and provide that growth in a new way. Students who do not make progress may attribute their struggles to many external factors ("I'm not good on a computer" or "I did the work but it didn't save it", for example). For both student and teacher, the use of new platform for learning and the new ways in which student demonstrate understanding or proficiency are factors that neither can control and both can see as impactful on student learning and teacher efficacy.

Skill building is a critical component of a student's self-efficacy, and Teacher LS seems to be purposefully developing assignments to do so. Bandura (1994) supports this strategy, explaining that student self-efficacy affects belief with respect to goal-setting, effort, perseverance in the face of failure and resilience (p. 5). Teacher LS recognizes the skill deficit and then plans an assignment that is appropriate and confidence building in hopes of preventing students believing that their failures lay in the internal factors (not smart) or external factors (the teacher doesn't like me). Weiner (2001) also supports this concept, noting that expectancy and value build the student's confidence as they attempt challenging work. Expectancy refers to

one's personal level of projected future success based upon previous experience, while value speaks to one's subjective amount of emotional reward for achievements (p. 5). In this way, both Weiner and Bandura point to the critical importance of student belief and the perception of internal and external loci and control. Teacher LS understands this dynamic and is selecting work to grow student efficacy.

Chapter 5

Recommended Actions

Discussion of the Findings

The research and this study both seem to indicate that collective teacher efficacy is critical to changing beliefs and then instructional practices. The power of a Professional Learning Community was clear in the work that teachers were able to do, even when collaborating online. However, the kinds of crucial conversations and consensus building through in-person team meetings may have been an element that could not be replicated virtually. For the principal, leading in those meetings, in-person or virtually, is essential to ensuring that teachers, and then teams, are able to work from belief toward genuine doubt. Meaningful change comes from the confidence of working through the issue as a group, using both research and experience to explore and diagnose the challenges and to form, together, an actionable strategy with measureable outcomes. Providing the structure of a true collaborative team meeting, with specific goals and expectations for discourse, followed by a structured system for working as a unit in the space for evidence-based solutions and recommendations for reachable and reasonable mile markers will be the role of the team leader or principal. Allow time for this to occur, as change can be difficult, nonlinear, and frustrating. As a leader, it is imperative to stay on the message of solving the issue and to direct conversations away from the devolvement of complaining and figure-pointing that can find their respective ways into what can be a powerful process for growth. The Professional Learning Community model is an exceptional framework for growth and professional development. Doing it well in a virtual environment will take more planning and preparation for leaders, but the framework stands and is sturdy enough to apply.

As a leader, I believe that I was able to frame the issue for the teams, and I also believe that the process of reflecting on the practices was of benefit to the teachers and as a team. The data show that throughout the process, the teachers and the teams considered the impact of their strategies and the results of the homework. I think that for some of the teachers, the questions raised in the study brought about a fresh consideration of their practices. It may not have evinced change, but it evoked thinking honestly and clearly about their models. For some, the study bolstered feelings of self-efficacy. For some, the study provided a look into the practices with new perspectives—that of the student and parent. And while a dramatic shift in team educational practice did not emerge as a result of the study, perhaps a foundational understanding that the subject of homework, and the impact of it, requires the team to dive deeper and to challenge more critically the tenets they have established for themselves and as a collective teaching unit. We have advanced the conversation and given some food for thought.

The four frames that were used to consider the data (Belief, Self-Efficacy, Critical Race Theory and Collective Efficacy) worked well together in terms of classifying teacher beliefs and understanding the tenacity of those deeply ingrained elements. Understanding the power of belief and the path to doubt, the role of self-efficacy with respect to the development of Collective Efficacy, Attribution Theory and Critical Race theory served to create a comprehensive and interconnected view of teacher thinking, and in particular, teacher thinking in a context that is highly unusual. Each of the frames was supported by answers provided by teachers and teams, and the intersection of the four theoretical frameworks centered on the need for teachers to feel ready, prepared and efficacious for beliefs to transform. Hattie's meta-analysis (2008) pointed to collective efficacy as the highest yield on return for leveraged teaching practices (p. 5), and the study finds great agreement with that result. The work will continue with the teachers, using the

teaming process, collective efficacy and a goal-oriented, data driven action plan that will develop from the teachers as they continue to wrestle with the question of homework and its value.

The inequity of homework has also been discussed in the research over the years, but in this context, the divide is exacerbated by the technology gap. Critical Race Theory plays a significant part in examining this construct in the distance learning model for rural, disadvantaged students. Ladson-Billings and Tate (2016) mark that beyond the inherent issues of race that exist and persist in schools and communities, educational systems suffer from inequitable funding formulas and taxation models that directly impact the quality of school education (p. 53). But taken further, and in regard to the distance learning question—the issue of access and preparedness for students who live in rural, impoverished areas must also be factored. Families with internet issues do not have the same educational opportunities. Moreover, parents and guardians who are not confident in the use of technology are placed in impossible settings, particularly for younger students who are dependent upon those adults to assist them in accessing instruction and support. And yet, the expectation from schools remains that parents will be part of the educational process, despite these very real and prevalent impediments. The feeling of helplessness that students feel when overwhelmed, unprepared or lack efficacy can result in battles between parents and students over the completion of homework and student perceptions of themselves as learners (Orkin, May & Wolf, 2017, p. 3-4).

Helplessness may also be an issue for parents who don't feel adequate to work with students on content or in the distance learning model. Poverty knows no boundaries and respects no area codes. Leaders may find in this study that simply presenting data and research will not be sufficient for driving true, meaningful and lasting change in teachers and teams. The leaders must be able to guide teachers and teams through the data, provide critical questions, and allow

the teams to find and identify their beliefs before challenging them. This study has shown that even in the midst of great change, and with freedom to explore and redefine homework, teachers struggled to see beyond what was known and what they believed to be true of their efficacy in instruction and creating good homework. This will not be a quick or easy journey for educational leaders and their teams, but it is a crucial one. As schools and districts incorporate distance learning into their models, not in response to an emergency but as a matter of growth and understanding of 21st century educational paradigm shifts and 21st century students, it will be incumbent of those teachers and leaders to consider what homework does, and how homework informs practice. Those questions have been asked for many years, and perhaps this change in direction will lead the discussion into a broader consideration of homework in all settings.

Contributions to the Field of Educational Leadership

Improvement in this area of education should be thought of in terms of how teachers design and employ homework. Too often, homework can be used as a punitive tool, and research clearly indicates that homework expectations for students and families are impacted by poverty and race. Educators have often opined that parent engagement is a critical component of the success or failure of homework. In the distance learning world, with synchronous and asynchronous learning and evaluations, more weight is placed on parents and families to assist with the work. In some cases, families have hired tutors to visit the home and work directly with the children to support them. Other may not have the ability to do so. Clearly, this is an issue that in this context creates an inequitable model.

School boards, administrators and communities must make a financial commitment to ensuring that the technology and the infrastructure exist for all students. School districts must

develop and provide parent and adult training in the platforms and processes for supporting students if the expectation continues that parents be engaged in the learning, and specifically, the completing and submitting of homework.

Recommendations and Implications for Educational Leadership for Social Justice

The lines of inquiry chosen focused on the beliefs of teachers. An area that this study did not explore would be the beliefs of our students about homework in relation to the closure. Exploring these questions with teachers requires that your data collection method is accessible, accurate and easily navigable. Google Forms is a reliable system for these questions and collection requirements and would be recommended for this type of qualitative research. Because the study shifted from in-person meetings to Google Forms responses and Zoom meetings, teachers also moved from individual to team responses which affected how the data was reviewed and evaluated. Researchers should account for those effects when planning future studies.

Future researchers may wish to consider questions of parent beliefs in light of the changes to homework in the distance learning environment as well. Much has been written about both student and parent perceptions of homework (Orkin, May & Wolf, 2017; Dudley-Marling, 2001) but in the context of the pandemic and the sudden change to remote instruction, research may be limited. Further exploration regarding the impact of the COVID 19 pandemic on learning and homework will be warranted.

Limitations

The closure of schools during the pandemic clearly impacted the scope of the study and the impact of the learning as a team. Though the teachers met weekly in Zoom meetings, in-person meetings in the school buildings and led by the principal in that setting would have permitted greater opportunities for in-depth discussion and direction for the teams. Sharing of articles and team-driven activities may have been richer and more effective had the teams been able to do that work together and in person. This limit truly changed and impacted the scope of the study and the impact of the reflections.

Implications for Your Leadership Agenda and Growth

In reflecting on the study and looking back at the spring of 2020, I believe that three takeaways can be articulated and must be valued in school and district level planning going forward. The first lesson in leadership is to properly plan and execute professional development options. No one may have anticipated a state-wide closure, but some school systems had trained teachers and students using 1-1 devices and online platforms. They were able to make the leap much more effectively and efficiently than we were able to do. Teacher readiness and infrastructure (devices, software, and technology support) are crucial components that showed themselves to be of the great importance during the closure. Many times in the past few years, as a leader I had begun this process for training teachers and providing good equipment but was often derailed by other initiatives. The resulting struggles for teachers and students stemmed from missed opportunities to be 21st century school systems.

The second lesson in leadership is to let the data tell me the story. What I believed seemed to find its way into my work in this study, and I had to be reminded that though I may

feel that the data is pointing to my assertions, only a deliberate and careful consideration of the data would be acceptable for truly knowing what teachers believed and why. My presuppositions were…deeply held beliefs that would not allow me to consider other causations for why teachers felt homework was effective. As a researcher, a leader, and as a human, I need to be able to look more objectively at these questions and not fall victim to bias.

The third lesson in leadership that I have gained from this work is that as a leader, my learning and my growth as an educator goes on. It is imperative for me to recognize that my twenty years of experience is valuable, but that as we learned during the past few months, my understanding of education is far from complete. In wanting to see change in others, I must also be open to change in myself. The study brought much to my attention about my ways of thinking, and my own efficacy as a teacher. My learning now includes better understanding epidemiology, recognizing and accounting for the emotional impact on students and teachers living in the pandemic and managing hybrid schedules while keeping our focus on what it must always be: providing our students with the best educational experience we can.

I believe that the study did advance teacher thinking about homework though it did not result in appreciable change. However, as the study concludes, the work of this school continues as we take the lessons of 2020 and apply them to our planning, our teaching, our professional development, and perhaps most importantly, our vision of who we can be, and must be, for all students going forward.

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