

Running head: IMPACT OF HOMEWORK

**IMPACT OF HOMEWORK PRACTICES ON MIDDLE LEVEL STUDENTS
(GRADES 5-8)**

A Doctoral Capstone Project

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Joshua Lee Kuehner

California University of Pennsylvania

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California University of Pennsylvania
School of Graduate Studies and Research
Department of Secondary Education and Administrative Leadership

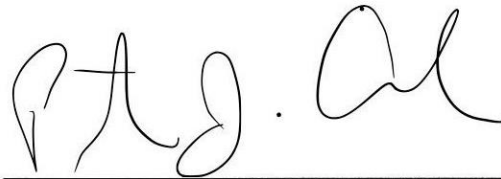
We hereby approve the capstone of

Joshua Lee Kuehner

Candidate for the Degree of Doctor of Education

03 AUG 2020

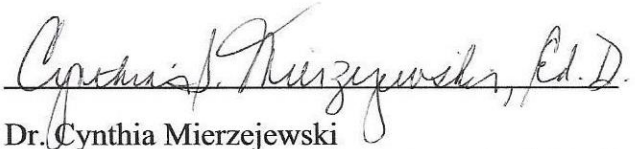
Date



Dr. Peter Aiken
Adjunct Professor, California University of PA
Doctoral Capstone Faculty Committee Chair

8/4/2020

Date



Dr. Cynthia Mierzejewski
Superintendent, Schuylkill Valley School District
Doctoral Capstone External Committee Member

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Abstract

Schuylkill Valley Middle School did not have a guideline for consistent homework use among the teaching staff, which resulted in irregular homework practices. This irregularity emphasized a need for consistent homework guidelines that all teachers can follow.

The purpose of this study was to identify the impact of homework on students at Schuylkill Valley Middle School from the perspectives of teachers and parents. Additionally, I wanted to identify best practices for homework at the middle level so that homework could be used as an effective educational tool to best meet the academic and social/emotional needs of the students. In this mixed methods study, I examined and analyzed answers provided on anonymous surveys (Appendix A & B) distributed electronically to teachers and parents of students at Schuylkill Valley Middle School, as well as reviewed archived gradebook data to check for consistency among perceptions and practices. Three research questions guided the study, focusing on homework perceptions, benefits and challenges, and trends and best practices.

The survey data indicated that parents and teachers agreed on the value, benefits, and challenges associated with homework at the middle level. However, parents' and teachers' perceptions of best practices were not aligned. With that, the gradebook data indicated that teachers' perceptions and practices did not match. This resulted in the establishment of recommended homework guidelines to be consistently used by all teachers moving forward. Additionally, recommendations were made for further research regarding homework use and design.

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CHAPTER I

INTRODUCTION

A school in Ireland was recently in the news because they decided to do away with homework for the entire month of December, replacing it with “acts of kindness” (O’Connor, 2019). Children were asked to do anything as long as it brightened someone’s day. A school district in Marion County, Florida, also banned homework, replacing it simply with pleasure reading (Friedman, 2018). A policy in Ridgefield Public Schools in Ridgefield, Connecticut banned all homework on weekends and school vacations (Hobbs, 2018). The administration wanted students to spend more time reading, sleeping, and being with family. These ideas, and others, have become more prevalent as educators continue to question the value of homework in schools.

As the principal of a nationally recognized Don Eichhorn Schools: Schools to Watch, I believe one of my primary responsibilities is to lead in an effort to provide improved academic and developmental outcomes for all students at the middle level. The staff promotes the importance of educating the whole child, putting equal emphasis on academic and social/emotional learning. With an educational background in special education, I routinely advocated for the individual needs of every student that I served. Now I serve approximately 700 students and have seen the daily struggles of middle school students, especially as it relates to homework practices.

Despite best intentions and because there was no existing homework guideline, as students progressed through middle school, they received significant homework assignments daily, leading to hours of homework each night. More and more, students

who struggled academically and/or lacked support outside of school continued to be unsuccessful in accurately completing these homework assignments, rendering the intent of the assignments ineffective. This led to decreased grades, which in turn increased anxiety and other social/emotional concerns for the students. The goal of this study was to identify the impact of current homework practices on students. In addition, I wanted to thoroughly review and pinpoint best practices for homework use, to establish guidelines for effective homework practices that best meet the academic and social/emotional needs of middle level students.

Through surveys and data review, I used a mixed methods approach. Using random samples, I pulled students' academic results via on-line gradebooks to determine the academic impact of homework. Grades were analyzed to determine weight of homework on overall percentage of students' grades. This quantitative approach helped to identify the academic impact of homework on the students. The qualitative focus involved teachers in the core content areas (mathematics, ELA, science, and social studies). Teachers were anonymously surveyed, through an on-line database, regarding the quality and quantity of homework assignments. The surveys focused on how teachers used homework as an educational tool and how those assignments were used in the grading process, considering the fact that no blanket homework guideline was in place. Parents were anonymously surveyed with a focus on their perceived impact of homework on students at the middle level. Parent surveys were distributed electronically using the school district's on-line database containing parent emails.

After surveying, I analyzed all of the collected data, focusing on the quality and quantity of homework assignments in terms of number of homework assignments and

weighting on academic grades. Extensive review of literature, in conjunction with the quantitative and qualitative data reviews, led to recommendations for homework best practices at the middle school. The research looked to identify a comparison between current homework assignment practices and students' academic and social/emotional successes and concerns. Using the results of the research, my goals included a potential overhaul of the existing homework system. Objectives for assigning homework were clearly identified and used as the guide for future homework practices. With new guidelines, teachers will know and understand how to use homework as an effective learning tool and parents will know and understand why homework is given to students, leading to a better overall partnership in the development and growth of all students.

Time was identified as the primary cost associated with this action research project. Building administration will need time to thoroughly explain the changes to homework guidelines to the teaching staff, as well as time to further communicate changes to students and parents. Teachers will need time to understand and implement the changes in their existing programs, including time to ask questions related to the changes. Administrators will need time to prepare and present homework guideline recommendations to the board of school directors. Beyond that, there were no real costs associated with this project.

I looked back at my educational career from the time I was a student, to my time as a teacher and ultimately to my role as an administrator. I remembered homework assignments that I had and gave that were ineffective. As a student, useless assignments were frustrating and time-consuming. As a teacher, they were conceived without real knowledge or understanding about best practices. In my role as an administrator, these

types of assignments must be eliminated. The purpose of this action research study was to identify practices that ensure that homework is used as an effective educational tool.

This was my focus because homework is a part of our educational programming that will not be completely eliminated anytime soon. To help achieve the desired results, I used the following research questions to guide the study:

- What are teacher and parent perceptions of homework effectiveness at the middle school?
- What are the comparative benefits and challenges of homework for middle level students?
- What are the educational trends of homework in relation to best practices?

Chapter I introduced the topic of homework and its use at Schuylkill Valley Middle School. Published research about homework is explored in Chapter II. Chapter III will explain the methodology used in this study, including surveys used to evaluate the perceptions of parents and teachers, as well as an anonymous review of archived student gradebook data. A statistical analysis of the data and findings will be presented in Chapter IV. Conclusions of the study are discussed and recommendations for practice and further research are offered in Chapter V.

CHAPTER II

LITERATURE REVIEW

Educational scholars have debated the merits of homework for many years. Most came to the same conclusion: when designed well, homework results in positive achievement for students (Christopher, 2008; Cooper, Robinson, & Patall, 2006; Marzano & Pickering, 2007). However, there are groups that oppose any form of homework and believe it has no educational value (Bennett & Kalish, 2006; Kohn, 2006; Kralovec & Buell, 2000). Based on the research, there is no one correct answer about whether homework is effective or ineffective. However, most people can agree that quality homework matters. In fact, when homework is designed and implemented properly, it serves as a valuable tool for reinforcing learning (Carr, 2013).

Quality Homework Design

According to Dettmers, Trautwein, Ludtke, Kunter, and Baumert (2010), “homework works if homework quality is high” (p. 467). The question becomes, what does quality homework look like? Cathy Vatterott (2010) identified five hallmarks of good homework: purpose, efficiency, ownership, competence, and aesthetic appeal. Teachers need to understand what makes homework effective and be sure to focus on these areas during its design.

Purpose means that homework assignments are meaningful to the students (Carr, 2013). Meaningful homework assignments challenge students to think deeply, apply knowledge and skills towards problem solving, and create authentic products (Bembenutty, 2011). Meaningful assignments are ones where students understand their

purpose and why they are important (Xu, 2011). These assignments should provide feedback to teachers about students' understanding, and enable teachers to adjust instruction as necessary (Vatterott, 2011).

In the book, *Homework Done Right: Powerful Learning in Real-Life Situations*, Alleman (2010) identified seven principles of meaningful homework. Principle 1 involves connecting homework assignments with the out-of-school environment. Principle 2 includes challenging students to use critical thinking to apply learned material to real-world situations. Principle 3 encourages parent involvement in the process. Principle 4 relies on student differences in developing homework based on individual experiences. Principle 5 suggests that homework should allow students to explore their current social and family circumstances as part of the process. Principle 6 says meaningful homework should allow students to explore and observe their community and environment. Principle 7 says that in order for homework to be meaningful, the curriculum must be up-to-date. Alleman (2010) claimed that following these principles will lead to high rates of success and an increase in homework completion.

Efficiency is the second hallmark of quality homework. Homework at the middle level should not take too much time to complete and should require thinking (Carr, 2013). Cooper (1989) made recommendations regarding the amount of time spent on homework, generally suggesting ten minutes per grade level. This means a fifth grade student should have no more than 50 minutes of homework per night and an eighth grade student should have no more than 80 minutes of homework per night. Students who spend too much time on homework tend to perform worse than students who spend less time (Cooper et al., 2006). This is a reason why schools establish policies for quantity of homework

permitted. Efficient assignments are not too easy and not too hard. Moderately difficult homework will most likely enhance student motivation and performance (Dettmers, et al., 2010).

The third characteristic of quality homework is ownership. When students are personally connected to the content of their homework, they will learn more and be more motivated (Carr, 2013). Giving students choice in their homework is a way to create ownership. Menus with a variety of options are a way to make this possible. Teachers must know their students and think about how they learn best; that is what makes the learning more relevant (Vatterott, 2010). Additionally, students take ownership of their work when they are proud of their work (Carr, 2013). Teachers can do this by recognizing the efforts of their students and displaying their work.

Competence is the fourth characteristic of quality homework. Students must feel competent in completing their assignments. “Homework that students can’t do without help is not good homework; students are discouraged when they are unable to complete it on their own” (Vatterott, 2010, p. 13). Marzano and Pickering (2007) pointed out that research provided strong evidence that students were more likely to complete homework when it was at an appropriate level and difficulty. This means students should be able to complete homework on their own with a relatively high level of success. In order to ensure this, teachers should differentiate assignments to meet the various levels of all students (Carr, 2013).

The appearance of homework matters. This is why aesthetic appeal is the fifth hallmark of quality homework. Students decide whether or not to do their homework on the basis of the first impressions (Vatterott, 2010). Worksheets filled with definitions or

math facts appear boring and students are turned off from completing them. Simple things like graphics and colors can make homework more exciting and interesting. In the end, quality homework is developmentally appropriate and meaningful in a way that promotes self-efficacy and self-regulation (Vatterott, 2011). This homework is authentic, allowing students to engage in solving real-world problems. According to Bempechat (2019), quality homework makes efficient use of students' time and it has a clear purpose connected to what students are learning. It allows choice, promoting a sense of ownership for children. Quality homework enhances students' perception of their own competence by: (1) focusing them on tasks they can complete independently, (2) differentiating based on need, (3) providing suggested time frames for completion instead of fixed time to complete tasks, (4) delivering clear directions, and (5) modeling strategies for competing lengthy tasks.

Purpose of Homework

Why do teachers assign homework? According to Van Voorhis (2004), teachers assign homework for one of 10 purposes: practice, preparation, participation, personal development, parent-teacher communication, parent-child relations, peer interactions, policy, public relations, and punishment. These purposes serve either instructional or non-instructional functions. Recent studies have shown that practicing the content learned is the homework purpose most frequently used throughout schooling (Kukliansky, Shosberger, & Eshach, 2016). A recent study by Rosario, Nunez, Vallejo, Cunha, Nunes, Mourao, and Pinto (2015) looked at the relationship between homework and sixth grade mathematics achievement. They reported that homework with the purpose of extending what students already knew, positively impacted student

achievement while simple practice and preparation did not. In order to understand if homework is beneficial and enhances academic success, purposes of homework need to be looked at more closely.

Frey and Fisher (2011) looked at instructional homework purposes and organized them into four categories: fluency practice, application, spiral review, and extension. Fluency practice is when students practice something they already know just so they can get better. This technique is common in sports and music, but it can be used in all content areas. Reading at your instructional level or practicing times tables are examples of fluency practice. Application is relating what one knows to a new situation. Spiral review involves practicing familiar concepts throughout the year while still practicing newer material. Finally, extension homework has the purpose of simply extending what students already know. This type of homework requires the use of a variety of skills and knowledge (Frey & Fisher, 2011).

Non-instructional purposes focus on communication or political functions (Van Voorhis, 2004). Teachers develop assignments that encourage parent-teacher communications, parent-child relations, and peer interactions. Some teachers ask students to review tests with parents to keep the parents aware of student progress. Some assignments require students to interact with their parents to complete. Marzano and Pickering (2007) noted that appropriate parent involvement should not require parents to act as teachers or to police homework completion. Collaboration through shared documents on-line have become commonplace in today's classroom, serving to impact peer interactions. Political functions involve those where teachers assign homework to fulfill policy requirements or to satisfy public expectations (Van Voorhis, 2004). The last

identified purpose of homework is punishment. Teachers who want to make homework a positive experience for their students need to avoid using homework as a punishment. Such practices have no educational value and adversely affect students, teachers, and the relationship they share (Guskey, 2000).

Cooper (2007) argued that homework has benefits for academic achievement among students, particularly for middle and high school students. It is generally agreed upon that homework has the potential to extend learning beyond the classroom (Tam & Chan, 2016). Whether the purpose is academic or non-academic, teachers need to assign homework that targets areas of student weakness and pushes students to reach success within their capacity (Cushman, 2010).

Best Practices

Teachers need to give homework that will have a profound effect on students' academic, social, and personal development (Bembenutty, 2011). In order to meet these positive benefits, teachers need to implement homework best practices. Time and frequency homework best practices have long been researched. Students who are assigned homework regularly showed greater gains than those who only received homework sporadically (Rivero, 2017). Researchers hypothesized that this was due to improved study skills and routines practiced through frequent homework. As noted previously, the amount of homework should also be a focus. Cooper's (2007) "10 minute rule" continues to be the standard. The National PTA and the National Education Association both supported this guideline (Reilly, 2016). Beyond this threshold, more homework does not contribute to learning (Bempechat, 2019). So if research identifies

frequency and time, what other best practices should be put in place to ensure homework is being used as a valuable instructional tool?

Teachers should make sure students fully understand the concepts and possess the skills necessary to successfully complete any homework assignment. For example, expecting students to do math problems at home that they do not fully understand will only discourage and frustrate them (Protheroe, 2009). For this reason, providing time in class to start homework is essential (Saam & Jeong, 2013; Cushman 2010). Protheroe (2009) recommended that teachers should routinely allow students to work together on homework in class. Some students are motivated to complete homework if they are allowed to work with a peer or in peer groups. Data collected by Burrell and Snead (2017) on middle school students' motivation and homework suggested that creating homework assignments involving a social context may be beneficial. Protheroe (2009) also suggested assigning homework toward the beginning of class, explaining how to do the homework, including going over the directions and providing examples, explicitly relating the homework to classwork, and clearly communicating the expectations for every assignment.

Feedback must be given to homework. Letterman (2013) identified that students felt homework was important to them when teachers provided feedback on their assignments. Walberg and Paik (2004) identified teacher feedback to homework as having a powerful positive effect on student learning. Specifically, they noted that students learned more when homework was commented upon and discussed. Feedback also acknowledges a homework assignment's importance (Protheroe, 2009). Discussing homework in class allows students to deepen their understanding of the concepts they

have learned and also identifies what they may not have understood (Vincent-Lancrin, Urgel, Kars, & Jacotin, 2019).

Homework Trends

The debate over homework is one that elicits strong feelings. Although studies have shown gains in achievement associated with homework (Marzano & Pickering, 2007), the relationship between academic achievement and homework is still somewhat unclear (Cooper & Valentine, 2001). There is evidence to suggest that homework has learning benefits for some students (Carr, 2013), but other research suggested that homework negatively impacts students (Bennett & Kalish, 2006; Kralovac & Buell, 2001). Cooper (2001), a pioneer in homework research, recommended homework for all students as long as policies were in place that take into account the unique needs and circumstances of students. Believing that quality homework improves student achievement, school districts have changed policies and have taken on the challenge of homework reform. The “No Excuses Homework” reform is one such example (Watkins & Stevens, 2013). In this program, students do not get to choose to not do homework. Instead, interventions are put in place to encourage the completion and quality of homework. Homework is clearly defined as assignments that require time outside of class to complete. Students are required to revise or redo work that did not reach a score of 70%. Zeroes are not allowed. If students do not complete homework, they are given extra supports from the school. Homework centers and after school tutoring programs are now a regular part of schools like in this example. Vatterott (2019a) stated that this was primarily because most homework done outside of the classroom was still done in

close proximity to schools. Schools recognize that homework success and completion must be a requirement and not just a suggestion (Watkins & Stevens, 2013).

The way homework is or is not graded is another trend. Teachers provided several reasons for grading homework, including motivation, reward for hard work, and help for students who struggled with tests (Vatterott, 2018). There is a belief that the grade students get will encourage them or cause them to complete homework (Vatterott, 2011). Protheroe (2009) claimed that students learned more when homework was graded and teachers should reinforce what is done correctly and re-teach skills and concepts that are not mastered. Vatterott (2011) noted that grades only influenced students who were motivated by grades, and some students did not care about grades. Schinske and Tanner (2014) stated the following:

At best, grading motivates high-achieving students to continue getting high grades – regardless of whether that goal also happens to overlap with learning. At worst, grading lowers interest in learning and enhances anxiety and extrinsic motivation, especially among those students who are struggling. (p. 161)

Grading homework rewards effort and can reflect students' learning. With this, students understand that their efforts determine outcomes (Fisher, Frey, & Pumpian, 2011). Teachers believe that effort should be rewarded and grades are a way to do so (Vatterott, 2011). The concern over this is that rewarding students for doing homework inflates overall grades, which does not truly reflect learning. This grade inflation was a third reason why teachers graded homework, according to Vatterott (2011).

There is an argument that homework is practice and should not be graded. According to Vatterott (2018), the current consensus is that homework should be used as

formative assessment and should not count as a grade. Counting homework as a grade can be unfair because students differ in the amount of support and resources they receive and educators do not always know who is actually doing the work (Vatterott, 2019b). Dueck (2014) agreed that many students simply are not empowered to do homework because they do not have the resources to do so. Violence in the home, utility disconnection, and negative school views were additional hurdles to homework completion noted by Dueck (2014).

Grading homework for completion is really a measure of compliance and opportunity rather than learning (Dueck, 2014). The most effective grading practices provide accurate, specific, timely feedback designed to improve student performance (Marzano & Pickering, 2007). Punishing students with zeroes for missing work is an ineffective practice (Reeves, 2008). Despite evidence that grading as punishment does not work (Guskey, 2000), many teachers maintain this policy, believing it will lead to improved student performance (Reeves, 2008). The problem is that penalties do not reduce homework avoidance and have little effect on future homework behavior (Dueck, 2014).

Vatterott (2019b) specifically recommended that homework should not count in a grade, but can be reported separately as a work habit. In schools where homework was not graded, it was still marked for correctness and students received specific feedback (Vatterott, 2011). The purpose of homework should always be a focus, and teachers should incorporate three specific practices as it relates to the grading of homework (Vatterott, 2011). Practice 1 involved evaluating each assignment to determine whether to grade it. Formative assessments should not be graded, while summative assessments

may be. The Rockward School District in Eureka, Missouri instituted such a guideline. Their policy specifically said that homework will not be part of a course grade if it is assigned for pre-assessment or early learning. Homework that is assigned as summative assessment may be graded. Practice 2 involved tying homework to assessments. Vatterott (2011) recommended allowing students to use homework assignments when taking a test. This practice encouraged students to practice via homework, while still creating a grading system that required understanding (Fisher, Frey, & Pumpian, 2011). Practice 3 is focused on demonstration of learning, not task completion. By doing this, students understood that they can improve their grades through the demonstration of mastery (Vatterott, 2011).

Another new trend in education is the flipped classroom concept. Rather than students doing their assigned practice at home, they access their instruction portion at home and complete specific learning activities in class with the teacher present (Greenwald & Holdener, 2019). Flipped learning is about how to best use in-class time with students (Inan, Balakrishnan, & Refeque, 2019). Flipped classroom environments can reduce student workloads by placing certain classroom tasks that require attention, such as taking notes in lectures, into contexts where students have more control over how and where to complete them (Talbert, 2017). Flipped learning can also promote technology-enhanced learning, which again provides flexibility for students (Al Rowais, 2016). Interestingly, a study by Dodson (2014) looked at the impact of online homework on class productivity. One group used only on-line homework, while the other did only paper assignments. The findings indicated that the difference was insignificant, with both groups having nearly equal rates of completion and grades in their homework. In the

end, flipped classrooms offered flexibility and choice, and when students were allowed to select homework activities, it raised their intrinsic motivation (Bembenutty, 2011).

Benefits of Homework

Based on John Hattie's research, Corwin Visible Learning identified 250+ influences on student achievement. The Visible Learning research synthesized findings from 1600+ meta-analyses of 95,000+ studies involving 300 million students, into what works best in education. They identified homework as having an effect size of 0.29, meaning that homework was likely to have a positive impact on student achievement. By comparison, mindfulness had a 0.28 effect size, boredom had a -0.47 effect size, and teacher credibility had a 1.09 effect size (Visible Learning, n.d.). Cooper (2006) agreed, stating that "doing homework caused improved academic achievement" (p. 48).

In Cooper's (1989) early work, *Homework*, he identified potential positive effects of homework. These effects are identified as follows:

- Immediate achievement and learning
 - Better retention of factual knowledge
 - Increased understanding
 - Better critical thinking, concept formation, information processing
 - Curriculum enrichment
- Long-term academic benefits
 - More learning during leisure time
 - Improved attitude toward school
 - Better study habits and skills
- Non-academic benefits

- Greater self-direction
- Greater self-discipline
- Better time organization
- More inquisitiveness
- More independent problem-solving
- Parental and family benefits
 - Greater parental appreciation of and involvement in schooling
 - Parental demonstrations of interest in child's academic progress
 - Student awareness of connection between home and school

Many assumptions can be made about the benefits of homework, including an increase in academic achievement (Bennett, 2017). Using research from the nonprofit group, Instruction Partners, Rivero (2017) added to the assumption, noting that consistent homework completion had been shown to increase achievement rates. Their research indicated that average gains on unit tests for students who completed homework were six percentile points in grades four through six and 12 percentile points in grades seven through nine. A study by Bas, Senturk, and Cigerci (2017) looked at students in grades one through eight, and higher levels. Their results indicated that “as the grade levels rise, the given homework appears to increase students’ academic success” (p. 45). They did note that a possible reason for this may also be that as grade levels rise, students become older, more responsible, acquire higher levels of awareness, improve in other developmental domains, increase knowledge, and improve concentration.

Cheema and Sheridan (2015) looked at how time spent on homework affected mathematics achievement. They obtained data from the Program for International

Student Assessment (PISA) 2012 student survey. PISA is an international assessment of 15-year-old students that was administered in more than 60 countries. They found that an increase in time spent on homework was associated with an increase in mathematics achievement of more than a fifth of a standard deviation. They noted this was a considerable effect size and should not be ignored. Rosario et al. (2015) analyzed the relationship between homework assignments and sixth grade mathematics achievement. They reported that extension homework impacted positively on students' academic achievement. Trautwein, Schnyder, Niggli, Neumann, and Ludtke (2009) concluded that demanding homework exercises improved seventh grade students' mathematics achievement. Rosario et al. (2018) found that homework quality predicted positively sixth grade students' mathematics achievement. It should be noted that a recent meta-analysis focusing on mathematics and science homework showed that the relationship between homework and academic achievement in middle school is weaker than in elementary school (Bempechat, 2019; Fan, Xu, Cai, He, & Fan, 2017). On the other hand, Chang, Wall, Tare, Golonka, and Vatz (2014) referenced a study showing that the homework attitudes of lower grade students (grade 4 and below) were not significantly associated with achievement, but the homework attitudes of upper grade students (grade 6 and above) were positively associated with achievement.

As Cooper (1989) identified, homework has benefits beyond academic achievement. Homework can prepare students to confront complex tasks, develop resilience, and learn to embrace challenges (Bempechat, 2019). Specifically, homework plays an important role in the development of self-regulation skills (Ramdass & Zimmerman, 2011). Self-regulation involves setting goals, selecting appropriate learning

strategies, maintaining motivation, and monitoring and evaluating academic progress. A longitudinal study with fifth grade students showed that doing homework fostered self-regulation skills and reading achievement (Xu, 2010). Another study by Xu (2008) involving 633 eighth graders looked at five self-regulation processes: structuring the environment, managing time, motivating oneself, managing emotions, and inhibiting distractions. Xu found that high-achieving students performed significantly better on these measures compared to low-achieving students. A study by Schmitz and Perels (2011) found that eighth grade students receiving daily self-regulation support during mathematics homework performed better on post-tests than their peers who did not receive self-regulation support. “Teaching these skills to students should be a priority for teachers and a focal point when designing homework assignments” (Carr, 2013, p. 172).

Self-regulation operates through three components: motivation, cognition, and metacognition (Ramdass & Zimmerman, 2011). The motivational domain implies that students believe in their capabilities and value homework as a task that enhances learning. Valuing homework and having high self-efficacy for the assignment can enhance a student’s determination when faced with challenges (Ramdass & Zimmerman, 2011). The cognitive domain relates to strategies students use to complete homework and process information more effectively. An example would be using brainstorming ideas and making an outline before writing an essay (Ramdass & Zimmerman, 2011). The metacognitive domain involves students setting goals and monitoring their own progress as they finish homework. An example of when students do this is when they reflect on why they do not understand a text during homework completion and use a strategy such as rereading the text (Ramdass & Zimmerman, 2011).

Many teachers also talk about the importance of students assuming responsibility for their learning and claim that homework builds that habit (Fisher & Frey, 2008). “Homework could also serve as a model for self-discipline, time management, and personal responsibility” (Saam & Jeong, 2013, p. 122). Managing time is necessary for this purpose. It involves setting priorities and planning ahead, scheduling regular time to do homework, and pacing oneself to complete multiple assignments with different due dates. It also involves keeping track of what remains to be done and reminding oneself of available time to do it (Xu, 2013).

Ramdass and Zimmerman (2011) found a positive relationship between homework and self-efficacy, self-reflection, responsibility for learning, maintaining focus, managing the environment, inhibiting distractions, delaying gratification, and managing time. Their study also showed a positive relationship at the middle school level between homework and a range of self-regulation skills, “implying that homework facilitates the development of self-regulation skills and enhances learning” (p. 215).

Challenges of Homework

Although there is a long list of positive effects associated with homework, there are also significant negative effects that challenge the suggested positive effects. Cooper (1989) identified potential negative effects of homework. These effects included:

- Satiation
 - Loss of interest in academic material
 - Physical and emotional fatigue
- Denial of access to leisure time and community activities
- Parental interference

- Pressure to complete homework and perform well
- Confusion of instructional techniques
- Cheating
 - Copying from other students
 - Help beyond tutoring
- Increased differences between high and low achievers

More recent findings supported many of Cooper's claims. In fact, students in high-achieving middle schools identified homework as the number one school stressor (Vatterott, 2019a). An empirical study by Galloway and Pope (2007) explained the link between homework and well-being. 496 students participated in this study. Their results found that 68% of students identified school work, homework, and tests as the number one cause of stress in their lives. Sixty-five percent of students stated that they were often or always stressed by homework and school work. *Kids Health Surveyed 875* students ages 9-13, with 36% indicating that grades and homework caused them stress (Kids & Stress, 2005). Although small levels of stress can foster motivation and healthy competition, ongoing exposure to school-related stressors can lead to physical, emotional, and behavioral struggles, including fatigue, depression, and decreased academic performance (Conner, Pope, & Galloway, 2009). Conner et al. (2009) identified the most frequent consequences of ongoing stress for students, including: physical illness, insufficient sleep, anxiety and depression, irritability, decrease in academic performance, withdrawal, drug or alcohol experimentation, and cheating.

Studies exploring the relationship between homework and well-being indicated that number of hours of homework was negatively associated with psychological well-

being, physical health symptoms, and sleep (Galloway, Conner, & Pope, 2013).

Specifically, Bempechat (2019) claimed that students carrying three or more hours of homework per night will face negative effects, including impaired learning, lack of motivation, anxiety, physical complaints, and sleep deprivation. Galloway and Pope's (2007) study also looked at the percentage of students who have dropped an activity, experienced exhaustion, and experienced weight gain by hours of nightly homework. Their results are represented in Table 1.

Table 1

Homework and Related Symptoms

Symptom	Less than 2 hours of homework per night	2.1 – 3.5 hours of homework per night	More than 3.5 hours of homework per night
Dropped activity	41.2%	52.2%	77.9%
Exhaustion	49.5%	53.5%	70.2%
Weight gain	14.3%	10.9%	28.9%

Homework also deprived students of free time hours and often put a strain on family time (Bennett, 2017; Suskind, 2012). Galloway and Pope (2007) reported that a majority of students in their study dropped an activity or hobby they enjoyed because homework took too much of their time. Research also suggested that homework can reduce the time students had for social life and cultural and religious activities (Galloway, Conner, & Pope, 2013).

Katz, Buzukashvili, and Feingold (2012) reported that students' interactions with their parents around homework often involved conflicts and negatively impacted their relationships. Lange and Meaney (2011) discussed how students reach frustration levels

when working with parents on homework. They noted that, when frustration occurs, it can:

Result in homework not being completed, which could raise the ire both of teachers and parents. Therefore, homework has the potential to be emotionally traumatic for children because they are both the medium for and the mediator in school/home interactions. (p. 36)

This conflict is only compounded because very often students are either not motivated to do homework or are motivated by extrinsic reasons, making interactions around homework at home mostly negative (Katz, Kaplan, & Gueta, 2010). Although parents are often encouraged to help their students with homework, it should be noted that parental help with homework is not a necessary component for school success (Bempechat, 2019).

Social class and ability level are two other areas that impact homework effectiveness. Kralovec and Buell (2000) claimed that homework punishes the poor because low income parents may not be educated enough to help with homework. In a recent study, researchers looked at mathematics achievement in low-income eighth grade Asian and Latino students (Bempechat, 2019). The results indicated that help with homework was something their parents could not provide. Vatterott (2019b) asked if homework was fair for different socioeconomic groups. She stated that teachers need to avoid making assumptions when assigning homework, including:

- Do not assume the child has a quiet place to do homework
- Do not assume the child has a parent who is home in the evening
- Do not assume the child's parents speak and read English

- Do not assume the family has money for school supplies
- Do not assume the child has access to materials such as paper, scissors, glue or a calculator
- Do not assume the child has access to a computer or the internet

The United States has the second-highest disparity between time spent on homework by students of high and low social classes, based on the Program for International Student Assessment (PISA) (Bempechat, 2019). The difference between advantaged and disadvantaged students was more than three hours per week. A study by Fernandez-Alonso, Alvarez-Diaz, Suarez-Alvarez, and Muniz (2017) supported this claim. They selected students in eighth grade in Spain and reviewed the time needed to complete homework. Their data showed that in a school with 60 minutes of assigned homework daily, students needed anywhere from four to ten hours a week to complete the assignments. In a school that assigned 120 minutes of homework daily, students needed 7.5 hours to 20 hours per week to complete based on ability.

In addition to the negative homework effects noted previously, Benbenutty (2011) identified specific maladaptive homework behaviors. These behaviors, identified as homework failures, refer to “any action, behavior, effect, or belief that is an attempt to regulate homework actions in ways that will result in detracting from reaching long-term academic achievement” (p. 460). These homework behaviors are listed in the following table (Benbenutty, 2011):

Table 2*Homework Behaviors*

Behavior/situation	Description	Example
Self-handicapping	Tendencies to engage in activities that can detract from accomplishing important academic goals	Making social commitments or attending a party the night before an important homework is due
Procrastination	Putting off academic tasks that will result in debilitating academic performance	Waiting until the last minute to complete homework
Defensive pessimism	Setting unrealistically low expectations	Lowering expectations in such a way that if the outcome is undesirable, they would have justification for the unsatisfactory performance
Defective academic delay of gratification	Postponing immediate gratification in favor of academic goals that are temporally remote	Going to a favorite concert the day before a test rather than staying home to study for a good grade on a test
Misregulation	Attempting to control actions, beliefs, and behaviors in ways that will fail to bring the desired outcomes	Trying to complete a very important homework in bed with the television, radio, or music on, believing that these resources will help them concentrate
Underregulation	Setting or maintaining low standards, having difficulties, monitoring behavior, and failing to exercise self-control	Setting standards that are too minimal or negligent, which could result in meeting only the basic homework requirements or failure to achieve even the lowest expected performance levels

iConnected parents	Allowing parents to be deeply involved in learners' homework tasks by using technology such as instant communication	Surveying their children's academic work and homework in such a way that children depend on them for decisions such as when to do homework; over assisting children
Maladaptive Echo Generation	Engaging in instant communication through technology and social networking sites	Uncontrolled use of texting during class time or interrupting homework to text members of their social networks

Perceptions of Teachers, Parents, and Students

Teachers. Literature looks heavily at the purpose of homework and best practices for success. However, looking at perceptions of those most directly involved in the homework process, teachers, parents, and students, is also important to review. “There is a lack of qualitative data in the existing literature describing perceptual differences among various stakeholders’ views on when homework is or is not beneficial for students” (Snead & Burriss, 2016, p. 62). Recently, however, several studies have looked at homework perceptions among these groups.

Snead and Burriss (2016) used a mixed-method study to understand middle school teachers’ perspectives on the role of homework. 118 sixth through eighth grade teachers identified academic and non-academic reasons for having to complete homework, including: practice, reinforcement, review, and responsibility. They answered an instrument composed of seven open-ended questions. The questions were designed to explore teachers’ perceptions associated with different aspects of homework.

In the study by Snead and Burriss (2016), teachers were asked why they assigned homework. Reasons focused on practice, reinforcement, or review. Their responses were as follows:

Table 3

Reasons for Homework

	Sixth Grade	Seventh Grade	Eighth Grade
Practice	23%	28%	15%
Reinforcement	26%	28%	15%
Review	3%	8%	4%
Combination	3%	0%	9%
Other	13%	12%	13%
Not indicated	32%	24%	43%

Teachers were then asked if homework was mandatory. More than 80% of the teachers indicated that it was not. Next, teachers were asked how much time they thought students spent on homework per week. Responses ranged from zero hours to seven hours per week to complete homework, with the average amount for all grade levels ranging from 0.77 hours per week to 1.78 hours per week to complete homework. In this study, grade level was not a significant factor in the amount of time required to complete homework. This would not be supported by the “10 minute rule” recommended by Cooper (2007). Teachers were also asked if technology was required to complete homework, with most responses indicating that no technology was typically needed (Snead & Burriss, 2016). Teachers were next asked how they assessed homework. Their

responses fell into several categories of who graded homework, including teachers, students, teacher-student combination, not graded, and not indicated. Specifically, their responses were:

Table 4

Assessing Homework

	Sixth Grade	Seventh Grade	Eighth Grade
Teacher	3%	8%	7%
Student	0%	20%	9%
Combination	55%	4%	15%
Not graded	10%	32%	37%
Not indicated	32%	36%	33%

Teachers were also asked what percentage homework counted in overall grades.

Answers ranged from zero to upwards of 25%. Their responses included:

Table 5

Homework Percentage of Grade

	Sixth Grade	Seventh Grade	Eighth Grade
0 > 10%	3%	12%	26%
11 > 15%	0%	4%	2%
16 > 20%	7%	4%	4%
21 > 25%	13%	0%	9%
Other	13%	20%	9%
Not counted	39%	4%	17%

Not indicated	26%	56%	33%
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Finally, teachers were asked if they wanted to share anything else about homework.

Other than sharing thoughts about inconsistencies with grading, the middle school teachers did not support any specific reason for assigning homework. The arbitrary responses suggested that teachers assigned homework “because this is just what teachers are expected to do” (p. 74).

Rosario et al. (2019) completed a similar study regarding teachers’ perspectives of homework. Their focus group consisted of teachers in grades five through nine, looking at characteristics of quality homework and characteristics of homework assigned. Research has found a disconnect, specifically between middle school science teachers’ perspectives of homework practices and actual homework practices observed in class (Kukliansky, Shosberger, & Eshhach, 2014). Because of this, Rosario et al. (2019) hoped to look at how teachers could best contribute to maximum homework benefits.

In this study, fifth and sixth grade teachers identified three themes of quality homework: instructional purpose, degree of individualization/adaptability, and length. Seventh through ninth grade teachers identified instructional purpose and degree of individualization/adaptability as themes. Both groups identified instructional purpose as the main characteristic of quality homework. These groups also believed that homework may be a valuable tool for students to diagnose their own learning levels. Both groups also believed homework should be a connection between school and home. These groups believed that quality homework should be developed to meet students’ individual needs and it should be brief. However, the majority of teachers at both levels reported that they

primarily assigned whole-class homework, showing a disconnect between teachers' perspectives about quality homework and their actual practices (Rosario et. al., 2019).

Another study by Davidovitch and Yavich (2017) looked at the homework perspectives of fifth and sixth grade secular and non-secular teachers in Israel. They identified two specific views from teachers:

Some teachers perceived homework as a way of reviewing, studying, and revising the material and in their opinion, this is an essential part of the learning process.

In contrast, other teachers thought that today there are more innovative ways of learning and reviewing the material and homework does not have to be the major and only way of learning. (p. 105)

Saam and Jeong (2013) collected information from a well performing mid-western middle school in the United States. Their study identified five beliefs shared by teachers regarding homework, including: homework is necessary, providing class time to begin homework is essential, coordinating with other teachers about homework is essential, awareness of length of homework is essential, and homework should provide feedback for both students and teachers. Specifically, the teachers noted that “coordinating the amount of homework given by each teacher in a team and the length of estimated time needed to complete the homework assignments increased the amount of success middle school students have with completion of homework” (p. 122). The data from this study supported this perception in that more than 70% of students in this school finished all assigned homework five nights a week (Saam & Jeong, 2013).

Tam and Chan (2016) looked at teachers' perceptions of homework in Hong Kong. Teachers in primary grades through grade six were involved in this study. “On

the whole, respondents support the use of homework assignments to serve various academic and non-academic functions” (p. 25). These teachers believed that homework was beneficial for monitoring learning and developing positive qualities in students. They also viewed homework as a tool to improve teaching and enhance home-school communication.

Parents. Bempechat (2019) referenced the National Household Education Surveys Program, stating that 70 to 83 percent of parents believed that the amount of homework their children had was about right. Parents also believed that “doing homework fosters responsibility and organizational skills, and that doing well on homework tasks contributes to learning, even if children experience frustration from time to time” (p. 39). Additionally, parents’ attitudes during homework time helped support the development of positive attitudes in their children, which is predictive of higher achievement (Bempechat, 2019).

In order to identify parent perceptions of homework, several studies have been completed in recent years. Davidovitch and Yavich (2017) surveyed parents of fifth and sixth grade students, in both secular and non-secular schools, with questions focusing on helping children with homework, motivating children to prepare homework, and involvement with homework. Based on survey results, there were no consistent answers among parents regarding their thoughts on helping with homework. Some provided little to no help, while others wanted to provide high levels of support. Regarding motivating students, again, there were no trends with parents’ answers. Overall, parents of students at religious schools perceived homework as an essential part of the learning process. In

contrast, parents in secular schools felt that homework should be done in school and is not essential (Davidovitch & Yavich, 2017).

Moroni, Dumont, Trautwein, Niggli, and Baeriswyl (2015) conducted a longitudinal study involving 1,498 parents of fifth and sixth grade students in Switzerland, with a focus on the quantity and quality of parental homework involvement. They found that “when homework involvement was perceived as supportive, it was positively associated with students’ achievement, but when parents were perceived as intrusive and controlling in the homework process, their help was negatively associated with students’ achievement” (p. 427).

O’Sullivan, Chen, and Fish (2014) completed a study exploring the impact of homework support with middle school families. Parents from an urban junior high school (seventh and eighth grade) participated in the study. Parental self-efficacy was a crucial part of this study. “Parents were asked to rate their beliefs in the capability to act in ways that would produce positive influences in their children’s school performance in mathematics” (p. 172). With this, the majority (more than 75%) of parents surveyed indicated that they provided a structured home environment for homework at least once per week. Approximately 50% of parents also reported that they provided autonomy support with homework at least once per week. This study also found a positive correlation between parental self-efficacy and all methods of homework assistance, specifically noting that:

Parents who felt more efficacious about helping with mathematics and believed that their involvement was beneficial to their children’s learning were more likely to construct a structured environment, provide direct assistance/instruction, and to

engage in activities that supported their children's autonomy to complete math homework when compared to parents who did not feel their assistance would make a significant difference in their children's math performance. (p. 181)

These findings supported the idea of creating homework that was not too difficult for children, requiring unnecessary parental support. Parents believed that when homework is so difficult that they need to be excessively involved, it was simply too difficult (Cameron & Bartel, 2009). As one mom noted about homework, it is an "ever-present albatross around our family's neck!" (p. 50).

An interesting, yet older, program focusing on parental involvement in homework is the Teachers Involve Parents in Schoolwork (TIPS) intervention (Van Voorhis, 2011). Van Voorhis (2011) explored this program that emphasized that students do better in school when parents, educators, and others in the community work together to support student learning. This program included assignments that required parental involvement through discussion, interview, experiment, or other interaction. Families rated their feelings while working on homework together and TIPS families rated their interactions significantly happier than non-participating families. Families also responded to questions about homework attitudes, with TIPS families reporting much more favorably to these questions than non-participating families. There are clear benefits to effective programs, such as TIPS, which can produce results through positive parental interaction, because the quality of parental help matters (Bempechat, 2019).

Students. According to Burriss and Snead (2017):

When considering homework, in spite of the most sincere efforts of parents to help children at home and the thoughtful planning of teachers to meet academic

objectives, it is ultimately students' attitudes regarding their commitment toward homework that may make the critical difference toward ensuring positive learning outcomes. (p. 194)

Homework assignments are likely to be most effective if students give the necessary effort and identify with the positive benefits for their learning (Madjar, Shklar, & Moshe, 2016). For this reason, it is important to know and understand the homework perspectives of students.

Deveci and Onder (2015) studied the views of middle school students relating to homework assignments in science classes. One thousand five hundred eighty-four seventh and eighth grade students were surveyed. They concluded that students with a more positive attitude towards homework assignments took more time to complete their homework with better results. They also found that students who spent less time watching television or playing video games had a more positive attitude towards homework. Additionally, they concluded that students who spent more time on reading activities had more positive views about homework than students who spent less time reading.

Burriss and Snead (2017) surveyed sixth through eighth grade students from four middle schools in the Southeastern United States. They wanted to better understand students' thinking and feeling regarding homework. Students were asked why they thought teachers gave homework. Responses included:

- Help learn – 33%
- Practice/review – 21%
- Busy work/have to/grades – 12%

- Assessment – 12%
- Punishment – 10%
- Improve/get better/get smarter – 4%
- Other – 8%

Nunez, Suarez, Rosario, Vallejo, Valle, and Epstein (2015) wanted to understand how students' perceptions of their parents' involvement with homework impacted their homework beliefs. Students in grades five through ten were included in this study. One of their key findings was that "students' homework behaviors (i.e., time spent on homework, homework time management, and amount of homework completed) are significantly related to perceived parental homework involvement" (p. 394). These results indicated that students were more motivated to do homework when they believed their support was positive (Nunez et. al., 2015).

Katz, Kaplan, and Gueta (2010) completed a cross-sectional study that included 71 fourth grade and 108 eighth grade students from elementary and junior high schools in Israel, where they focused on motivation for doing homework. The students identified controlled and autonomous reasons for why they do homework. Controlled reasons included to get better grades or a feeling of shame if their teacher found out that they did not do it. Autonomous reasons included doing homework to improve understanding or because it was fun. The findings of their study indicated that junior high students reported lower autonomous motivation for doing homework than do elementary students. Another important result from their study was that the eighth grade students "perceived their teachers as less supportive of their psychological needs than did elementary school students" (p. 262).

According to Letterman (2013), student motivation to complete homework assignments is “influenced by a collection of beliefs, attitudes, and emotions. These include students’ experiences that lead to success or failure, their personal expectations and standards for performance, and confidence in their ability to do well” (p. 114). Through interviews, students discussed current homework practices that do not work (Cushman, 2010). With this, they gave five recommendations for how they perceived homework to be effective. These recommendations were:

- Teachers should talk with other teachers to make the homework load reasonable.
- Teachers should give time to start homework in class so that students can get help if needed.
- Teachers should match homework to time available and should not penalize if students cannot finish it.
- Teachers should not give homework every day.
- Teachers should provide times and places for academic support.

These ideas supported the findings that suggested that how students perceived the support they received to complete homework was very important to their success (Katz et. al., 2010).

Summary of the Literature

In 1996, Lyn Corno wrote an article entitled, *Homework is a Complicated Thing*. That concept holds true to this day. People have wondered, “is homework just a headache – another distraction from family time and down time, already diminished by the likes of music and dance lessons, sports practices, and part-time jobs” (Bempechat, 2019, p. 37)? Or, is homework essential for student academic success because it leads to

improved study skills and routines that allow students to perform better academically (Rivero, 2017)?

Pamela Bator, an assistant superintendent for curriculum and instruction at Weston Public Schools in Massachusetts, wrote a blog in 2018 about homework. Regarding homework, she said, “for every opinion, there can be an opposing opinion. For every child, there can be a different response.” Educational scholars continue to be on both sides of the homework argument. However, most people agree that quality homework is a valuable educational tool that works to reinforce learning (Carr, 2013; Dettmers et. al., 2010).

The pressure to succeed in school is growing daily, and a major contribution to students’ exhaustion is heavy homework loads. Students can spend upwards of two to three hours per night on homework, but homework is not truly necessary for a rigorous curriculum or for developing a solid work ethic (Pope, Brown, & Miles, 2015). Because of the stress that homework can cause, Pope et al. (2015) argued that homework should only be used to review skills or prepare for in-class activities. Furthermore, they noted that quality homework allowed for student choice, was aligned to each student’s skill level, and connected to the main concepts being taught in class.

Quality and quantity of homework, as well as perceptions of homework, served as the primary focus of this literature review. Cooper (1989) recommended an increase of ten minutes of homework per grade level, which many experts still support (Reilly, 2016). Concerning quality, scholars such as Vatterott (2011) and Bempechat (2019) have identified best practices for homework design. Regardless of circumstance, quality homework works well (Dettmers et. al., 2010), a perception shared by parents, teachers,

and students alike (Bempechat, 2019; Cushman, 2010; Rosario et al., 2019; & Snead & Burriss, 2016). Chapter III focuses on the methodology of this action research project.

CHAPTER III

METHODOLOGY

The action research study was intended to investigate the impact of homework on middle level (Grades 5–8) students. With no set guidelines in our school, homework was administered in varied lengths, using multiple approaches. Furthermore, no real homework purpose was ever effectively established or communicated as a guide for teachers to follow. Because of this, students had diverse homework experiences, often leading to mixed responses, both good and bad, at home and at school.

Purpose

The purpose of this study was to identify the impact of homework on students at Schuylkill Valley Middle School from the perspective of teachers and parents. In addition, I wanted to identify best practices for homework at the middle level so that homework is used as an effective educational tool to best meet the academic and social/emotional needs of the students. Because of the purpose of this study, the literature review focused on specific areas: quality homework design, the purpose of homework, homework best practices, homework trends, homework benefits and challenges, and perceptions of homework. Knowing the purpose, I identified research questions that guided this project:

- What are teacher and parent perceptions of homework effectiveness at the middle school?
- What are the comparative benefits and challenges of homework for middle level students?

- What are the educational trends of homework in relation to best practices?

The goal in answering these questions was to identify homework best practices at the middle school in an effort to provide recommendations for effective homework practices that served as a resource for teachers in our school. Thus, this was the first step in the development of homework guidelines.

Setting and Participants

Schuylkill Valley Middle School is located in southeastern Pennsylvania. The school district encompasses approximately 53 square miles of rural and suburban communities. The middle school population includes 676 students in Grades five through eight. Approximately 84% of the students are Caucasian, and 11% are Hispanic. Approximately 36% of the students are eligible for free or reduced lunch. Seventeen percent of the student population qualifies for special education, and 3% of the students are gifted.

The middle school operates with a block schedule, with 80 minutes of mathematics and ELA instruction daily. In addition, students receive 80 minutes of combined science and social studies and 80 minutes of elective classes each day. Electives include art, STEAM, fitness, music, guidance, library, foundations of world languages, and technology education. Extra and co-curricular programs, including sports and chorus/band, are readily available for all students as well. In addition, remediation, tutoring, and after-school homework centers are accessible for all students. The middle school has 43 full-time teachers and 16 full- and part-time support staff who meet the needs of the students.

It is important to note that Schuylkill Valley Middle School has been recognized as a Don Eichhorn Schools: Schools to Watch. The National Forum to Accelerate Middle-Grades Reform was established in 1999 with the purpose of developing criteria for identifying high-performing middle schools (Pennsylvania Association for Middle Level Education, 2015). These criteria focus on four areas: academic excellence, developmental responsiveness, social equity, and organizational structures. The middle school was originally recognized with this honor in 2014 and was twice re-designated as a School to Watch. I point this out because it is evidence that Schuylkill Valley Middle School is a high-performing school, yet there was a need to improve existing homework practices.

As described earlier, I am a middle school principal and former special education teacher. I spent nine years in the classroom and have completed 12 years in administration. I have been in my current principal position for four years, and I had previously served as an assistant principal and principal at the high school level. In addition, I served as the director of secondary educational services concurrent to the high school principal position.

The participants in this study included core content (mathematics, ELA, science, and social studies) teachers as well as parents of students in the middle school. Core content teachers were the focus because they were primarily responsible for assigning homework in the school. This represented 24 of the 43 members of the teaching team. All parents of middle school students who previously supplied an email address in the student information system were also included in this study. Six hundred forty-six emails were on file, representing approximately 96% of middle school parents in the district.

Each participant received a survey asking questions about homework perceptions and purposes.

Regarding participation, Informed Participant Consent was obtained for all participants through a letter sent with the survey. The letter provided an understanding of the research as well as its risks. Parents and teachers agreed to participate by clicking a button at the beginning of the survey, which indicated their cooperation. Additionally, the district superintendent, Dr. Cindy Mierzejewski, granted written permission for me to complete this research study, allowing access to middle school teachers and parents.

This study also included a review of the actual impact of homework on students' academic performance. In order to identify this impact, a neutral mediator generated a random sample of student data using the electronic gradebook system. The data were stripped of all identifying information other than grade level. Dr. Mierzejewski also granted permission to access the gradebooks of middle level teachers as part of this research. The letter and survey to parents (Appendix A), letter and survey to teachers (Appendix B), and written permission from the district superintendent (Appendix C) were provided in the Appendix.

Research Plan

Action research is a systematic approach to solve a problem (Hendricks, 2017). In this case, Schuylkill Valley Middle School had a problem in that it did not have a guide to help teachers use homework as an effective educational tool. In order to attempt to solve this problem, I took a systematic approach through participatory action research. Participatory action research is considered to be “emancipatory (the action researcher is able to explore practices within the limits of social structures), critical (the action

researcher's goal is to challenge alienation, unproductive ways of working, and power struggles), and transformational (changing both theory and practice)" (p. 7).

I wanted to challenge the conventional notion that homework was a practice that must continue just like it did for previous generations. To a greater degree, nationwide practices have become such that students are averaging about twice as much time spent on homework each day as their counterparts did in previous decades (Pinsker, 2019). School districts continue to recognize this trend and, like a school district in Hillsborough, California, have updated their homework policies to emphasize the need for more meaningful homework (Pinsker, 2019). Their policy went so far as to ban homework due dates that fell on the day after a weekend or a break. According to its superintendent, Louann Carlomagno, the students seemed to be less stressed based on the changes, and their state testing performance remained the same (Pinsker, 2019).

Literature provided two primary areas of focus as it related to the value of homework. One side promoted the benefits of homework. Harris Cooper and others believed that the amount of homework students did correlated positively with their academic performance (Pinsker, 2019). The other area, which had proponents including Alfie Kohn, claimed that homework did not provide any real academic benefits. In fact, homework opponents pointed to countries where students routinely outperformed American students on standardized tests, such as Japan and Denmark, because they traditionally assigned less homework (Pinsker, 2019; Wilde, 2012).

After completing a review of literature, it was clear that homework, when designed and implemented properly, can serve as an effective educational tool (Carr, 2013). The literature focused on homework quality and quantity when determining value

and effectiveness. Quality homework has purpose, is efficient, creates ownership, is at an appropriate level of difficulty, and is aesthetically appealing (Vatterott, 2010). The effective quantity of homework focuses on amount of time needed to successfully complete it. Cooper (2007) identified the “10-minute rule” as the standard for homework time. These areas of homework quality and quantity served as guides for the next part of this study.

I began this study by first meeting with the core content teachers in grades five through eight. The team met during academic team meetings, which were designed to discuss the academic needs of the students. During this time, I explained that I was researching homework with the hope of creating guidelines that could be used to increase the effectiveness of the collective homework practices. I shared with the teachers the three research questions that were guiding this study and explained that the superintendent gave permission to survey middle school parents and teachers.

During the discussions, I asked the teachers to think about participating in the study. I explained that their perceptions of homework were very valuable. I also stressed that taking part in the study was completely voluntary and they may decide to not participate and there would be no problems if they declined. I also explained that taking part meant they would fill out a survey that asked questions about their homework beliefs, how effective they thought homework was, and what their purpose in assigning homework was. I provided time for the teachers to ask any questions. The only question was whether or not the survey was anonymous. I explained that it was anonymous and the only demographic question involved identifying grade level(s) taught.

All teachers indicated that they were willing to participate in the study. I told them that they would receive a link to the survey in their school email. A consent form was attached to the survey and the participating teachers had to click a button at the beginning of the survey that indicated that they agreed to participate. This survey was distributed electronically, with a two-week timeframe to complete it. At the end of two weeks, 23 of the 24 core content teachers provided data for the study.

Regarding parent participation, I worked with the Director of Technology to provide a mass email list of middle school parents. He generated a list of 646 emails. Using that list, I distributed emails that explained the purpose of the survey, including the desire to identify parents' perceptions of homework. Parents were also informed that participation was completely voluntary and they could decline participation without any penalty. Much like the teacher survey, parents needed to click a button at the beginning of the survey indicating that they agreed to participate. Parents were also given a two-week timeframe to complete the survey. At the end of two weeks, 199 parent surveys were completed.

The third piece of the research plan involved gathering data on the academic impact of homework on the middle school students. This required a neutral mediator to generate a random sample of students to use for the research. After generating the sample, the neutral mediator was given access to the district's electronic gradebook and produced gradebook information, looking at the academic impact of homework in terms of its weight on overall percentage of grades. This information was cross-referenced against recommendations in the literature. The overall plan involved a comprehensive

analysis of the survey results, combined with recommendations from the literature, to identify current practices in the middle school.

Regarding fiscal implications, this plan had no cost to the district. Regarding future plans, communication and professional development will play a role but at no anticipated cost. Professional development will be necessary to review and explain changes associated with new homework guidelines, but this professional development will be accomplished in-house during contracted time. Changes from this project need to be clearly communicated to stakeholders. This will be explained to all students and staff through the mass notification system and distributed with the summer mailers to all families. I will also communicate homework guideline changes through social media avenues, including the middle school Facebook page and website. As noted previously, time was the primary indirect cost associated with this project.

Research Design, Methods, and Data Collection

This study used a mixed-methods research design, in that it included a qualitative piece and a quantitative piece. Creswell and Clark (2011) provided examples of problems that best matched mixed-methods research. One example that they pointed to was that one data source might not be enough to fully answer the research questions. Specific to this study, I wanted to identify if the results of the qualitative data and quantitative data were complementary or contradictory.

This mixed-methods design followed convergent parallel design (Mertler, 2019). Using this design method, I collected quantitative and qualitative data at the same time, giving equal priority to each part. The quantitative and qualitative data were analyzed

independently, but the results were compared to identify supporting or contradictory findings regarding homework practices at the middle school.

The qualitative component of this research project included the use of teacher and parent surveys to identify perceptions of homework practices. The quantitative piece involved the actual data pulled from teacher gradebooks, identifying the mathematic impact of students' homework on academic performance.

In order to gain a detailed understanding of the homework practices, I distributed surveys to all core content teachers as well as distributed surveys to parents of the middle school students. The surveys were sent via email using a link to Google Forms. Results of the surveys were compiled through the Advanced Summary option by Awesome Table, which is a web-based application that displays data from Google Spreadsheets, using a variety of advanced filters.

To answer the question, "*What are teacher and parent perceptions of homework effectiveness at the middle school?*" I asked teachers and parents to respond to the previously mentioned survey questions. Because I wanted teachers and parents to say what they really believed, I used an on-line survey system where all responses were confidential and anonymous. Although similar, the surveys had separate concentrations requiring some variations in questions.

Both surveys included multiple choice response questions using a Likert scale ranging from (1) *strongly disagree* to (5) *strongly agree*, and a free response for teachers to identify their specific purpose for assigning homework and a free response for parents to identify any additional comments that they had about homework assigned at the middle school.

The timeline for collecting this data involved a two-week range. All surveys were distributed on February 14, 2020. The window to complete the surveys was closed on February 28, 2020. As noted previously, 23 of 24 teacher surveys were submitted, as well as 199 parent surveys. Once the window for completing the surveys was closed, all collected survey data was entered into Awesome Table, utilizing Advanced Survey options to graph the data points, primarily focusing on mean scores.

To answer the questions about homework benefits and challenges, as well as trends and best practices, I relied on the survey results and literature review. From there, I used the random samples obtained from teacher gradebooks in Sapphire Suite to attempt to compare current practices with best practices to see how the teachers performed. A neutral mediator was used to generate a random sample of students to use for the research. After generating the sample, the neutral mediator was given access to the electronic gradebook system to produce gradebook information.

The random sample had a parameter of five students from each grade level, meaning there was a total of 20 students in the sample. Archived data was used from the 2018–2019 school year. Specifically, quarter two gradebook information was used for consistency. Again, the neutral mediator picked this timeframe during the random selection process. The generated report included the complete list of gradebook information for core content subjects: mathematics, ELA, science, and social studies. All assignments were categorized in one of the following areas: default category, projects, quizzes, tests, classwork, homework, and extra credit.

Upon receiving the information, I identified all assignments given the homework designation in the gradebooks. Using this data, I determined how many homework points

were included during the second marking period, as well as the total points possible for each student. Although there was differentiation based on ability within the grade levels, all students had common assessments and common homework grades, allowing for a clean comparison. This meant that all five students at each grade level had the same number of homework points possible and total points possible for each of their respective courses. For example, all fifth grade students had 20 homework points possible for the 183 total points possible in math. Likewise, all seventh grade students had 16 homework points possible for the 277 total points possible in science. This process allowed me to identify the value homework weighed on the overall percentage of second quarter grades during the 2018–2019 school year and compared that to the actual grades that each student earned in each content area during that grading period.

Upon completion of data gathering, I began a comprehensive analysis of the survey results compared to recommendations in the literature and actual academic artifacts to identify current practices in the middle school, triangulating all data sources. A password-protected laptop was used for the electronic storage of all information. Any artifacts or documents were stored in a locked cabinet in the middle school office, as well as backups of all artifact data on the same password protected laptop. Additionally, as an added precaution, all data was housed in a cloud-based security encrypted location.

A research concern was producing valid and reliable information in an ethical way, which was deemed trustworthy to professionals (Merriam & Tisdell, 2016). Regarding the research process, ethical issues can occur “prior to conducting the study, at the beginning of the study, during data collection, in conducting data analysis, in reporting the data, and in publishing a study” (Creswell & Poth, 2018, p. 54). I

documented the process of collecting and analyzing data, following strict ethical guidelines to protect participants' identities, developing security measures to store and protect data, and avoiding conflict with participants (Creswell & Poth, 2018; Brinkman & Kvale, 2015).

Researchers have an obligation to protect the privacy of all participants (Creswell & Poth, 2018). The guarantee of confidentiality and the participant's rights were outlined in the informed consent documents (Appendix A and B). Additionally, I gained confirmation that all human subject protection guidelines were followed by submitting documentation to the Institutional Review Board (IRB) at California University of Pennsylvania. The purpose of this documentation was to protect participants and outline potential researcher bias, conflict of interest, and any risks or benefits to which a participant may be exposed. The IRB review request was submitted August, 7, 2019. An email from IRB was received August 15, 2019, granting approval for this research project (Proposal #18-084). The approval email was provided (Appendix D). In addition, I successfully completed all web-based courses through the Collaborative Institutional Training Initiative (CITI) required for this study in September of 2018 (Appendix E).

Regarding fiscal implications, there were no new costs associated with any part of this data collection process.

Validity and reliability are of high priority in research study (Suter, 2012). Reliability refers to "the process of the study being consistent, reasonably stable over time, and across researchers and methods" (Miles, Huberman, & Saldana, 2020, p. 305). Reliability is really having consistent outcomes if a research study is replicated (Suter, 2012). Validity is the determination of the data collection process and occurs if the

process accurately measured what it was intended to measure (Suter, 2012). Research is considered trustworthy if the researcher follows a rigorous methodology (Merriam & Tisdell, 2016).

I conducted an action research project that focused on the triangulation of multiple data sets to achieve validity. According to Merriam and Tisdell (2016), triangulation using multiple sources of data means comparing and cross-checking data collected through various methods, including people with different perspectives. The triangulation of data came from survey data of homework perspective from parents and teachers in the middle school, in combination with the collected artifacts from teacher gradebooks. This process allowed me to verify the data's accuracy (Mills, 2014) and clarify meanings or misconceptions held by participants (Stringer, 2007). Cresswell and Poth (2018) indicated that when "researchers locate evidence to document a code or theme in different sources of data, they are triangulating information and providing validity to their findings" (p. 260).

Merriam and Tisdell (2016) believed that reliability is challenging because "human behavior is never static" (p. 250). Replication of the research is difficult because reliability is based on the assumption that there is one single reality and that studying it over and over will yield the same results (Merriam & Tisdell, 2016). Improving reliability is possible, however, by developing trustworthiness and documenting the data collection procedures (Cresswell & Poth, 2018). This is what I attempted to do throughout this action research project.

Summary

Fraenkel, Wallen, and Hyun (2012) identified five strengths of action research:

- It can be conducted by almost any professional in any type of educational setting.
- It is focused on the improvement of educational practice.
- Educators who practice action research develop more effective ways to perform as professional educators.
- Action research can help educators identify problems and issues and then study them in a systematic manner.
- Action research can help in the establishment of a community of professional learners within an educational setting.

Because the purpose of action research is “to solve local-level problems, not to generalize solutions to larger population” (Mertler, 2019, p. 146), there were no real limitations. This participatory action research project intended to explore and challenge current homework practices, with the intent of transforming the way of thinking to ensure that homework is used as an effective educational tool to best meet the needs of all students moving forward.

The methodology for this project was explained throughout this chapter, concentrating on data collection through surveys focused on parents’ and teachers’ homework perspectives, as well as the retrieval of gradebook artifacts to verify the accuracy, or clarify the misconceptions, of participants. Chapter IV will focus on the analysis of the collected data and provide results and interpretations of findings.

CHAPTER IV

DATA ANALYSIS AND RESULTS

The purpose of this action research study was to identify the impact of homework on students at Schuylkill Valley Middle School from the perspectives of teachers and parents. In addition, I wanted to identify best practices for homework at the middle level so that homework could be used as an effective educational tool to best meet the academic and social/emotional needs of the students.

I analyzed survey responses on the perceptions of homework effectiveness and homework purpose among parents and teachers at Schuylkill Valley Middle School. Participants in this study included 23 core content middle school teachers and 199 parents of middle school students. Furthermore, I analyzed archived gradebook data for 20 randomly selected middle school students from the 2018–19 school year. This included an analysis of the academic impact of homework in terms of its weight on overall grades.

In this chapter, data were presented and analyzed to answer three research questions:

- What are teacher and parent perceptions of homework effectiveness at the middle school?
- What are the comparative benefits and challenges of homework for middle level students?
- What are the educational trends of homework in relation to best practices?

Data were collected through anonymous on-line surveys that were distributed to participants and through the gathering of archived data using a neutral mediator.

Results

I created surveys for parents and teachers used specifically for this study. Although not identical, both surveys included like questions that were used to answer the research questions. Additional questions were included to help steer my understanding of parent and teacher perceptions of homework needs as well as input for establishing potential future homework guidelines. Parents were given the option to provide additional comments about homework at the end of their survey. Teachers were also asked to comment on the purpose of the homework that they assigned. Comments were not statistically analyzed but were discussed in chapters IV and V.

The following results addressed the survey questions given to parents and teachers that used a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

Table 6

Teacher Survey Results

Question	Mean	Standard Deviation
Homework is an effective tool to teach responsibility	4.00	1.07
Homework is an effective tool to teach time management	4.09	1.00
Homework is an effective tool to reinforce skills taught at school	4.35	0.61
Students are expected to complete homework assignments with help from parents	2.13	0.91

Students are expected to complete homework assignments independently	3.61	0.67
Parents want students to have homework	2.96	0.61
The middle school administration expects teachers to assign homework	2.65	0.73
Giving zeros for late or incomplete homework motivates students to complete future homework assignments	3.00	1.03
I regularly provide feedback to students regarding homework assignments	4.09	0.98
Students who complete homework have a more positive self-image	3.70	0.78
I regularly communicate with my colleagues about the amount of homework assigned	3.00	0.86
Students who complete homework create fewer discipline problems in my classroom	3.65	0.61

Based on the results, teachers presented supporting or neutral results for all but two statements, indicating shared beliefs in the value of homework. Parental support with homework received the lowest score (2.13), indicating that teachers believed homework was developed to be completed independently.

Table 7*Parent Survey Results*

Question	Mean	Standard Deviation
Homework is an effective tool to teach responsibility	3.70	1.03
Homework is an effective tool to teach time management	3.44	1.15
Homework is an effective tool to reinforce skills taught at school	3.77	1.01
Students are expected to complete homework assignments with help from parents	2.72	0.99
Students are expected to complete homework assignments independently	3.58	0.86
Teachers should assign homework at the middle school level	3.59	1.08
Homework is often difficult for my child to complete	3.02	1.03
My child's grade is significantly impacted by homework	3.32	1.08
I understand and value the purpose of my child's homework assignments	3.52	0.94
The middle school expects teachers to assign homework	3.69	0.79
Teachers provide written feedback on homework assignments	2.18	1.01

The middle school should adopt a homework policy that controls the amount of homework assigned	3.87	1.01
Homework causes tension at home	3.45	1.10
Homework causes anxiety for my child	3.48	1.02

Parents agreed that homework taught responsibility and time management, as well as reinforced skills taught at school. However, parents also agreed that homework had drawbacks, including causing tension and anxiety.

Research Question 1: What are teacher and parent perceptions of homework effectiveness at the middle school? In order to best answer this question, I wanted to focus on homework quality and quantity. By quality, I wanted to know if homework was developed so that students could complete it independently. By quantity, I wanted to know how much time it took to complete homework each night. Teachers and parents were both asked to indicate, on average, how much time was spent on homework each night. The specific results are displayed in figures 1 and 2.

Figure 1

Time Spent on Homework Nightly (Teacher Response)

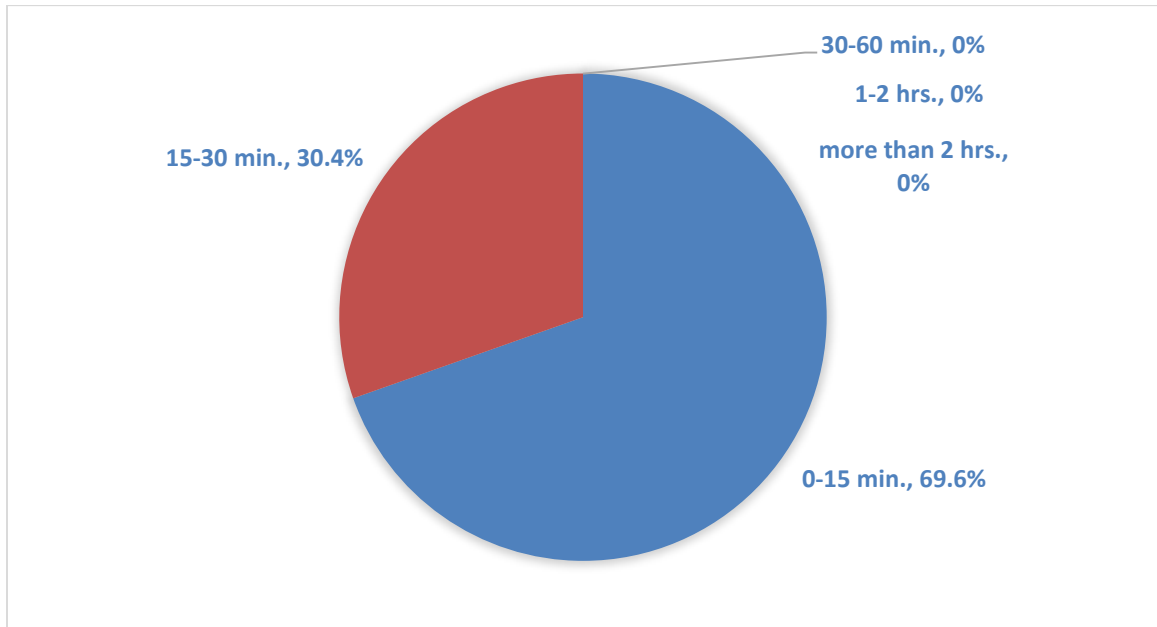
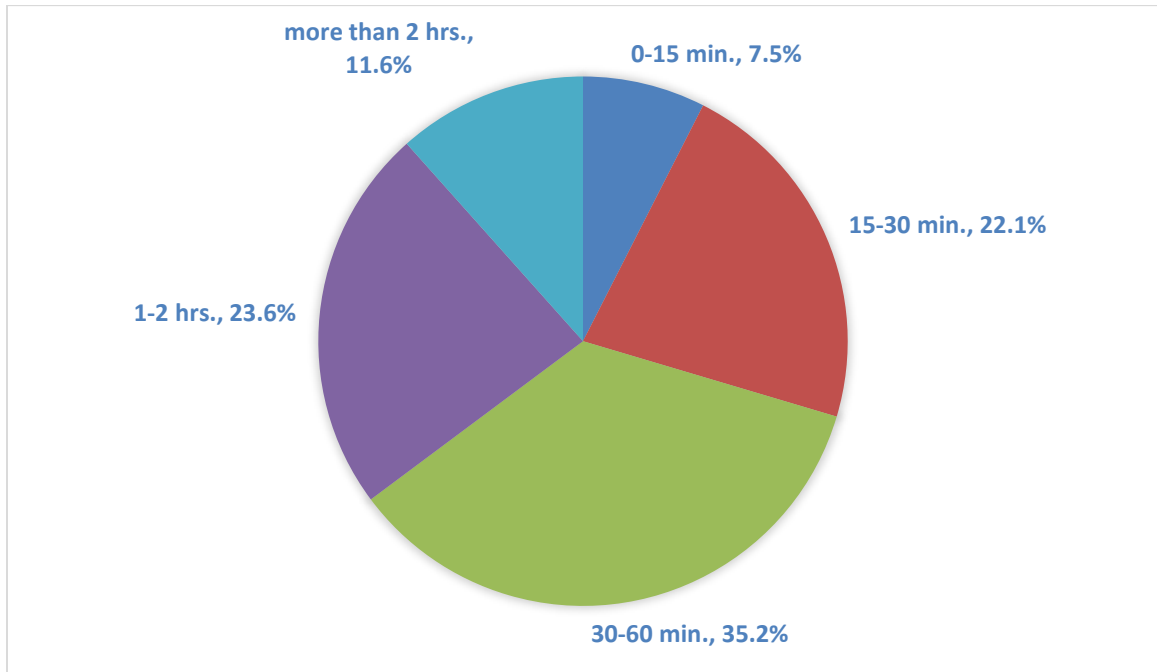


Figure 2

Time Spent on Homework Nightly (Parent Responses)

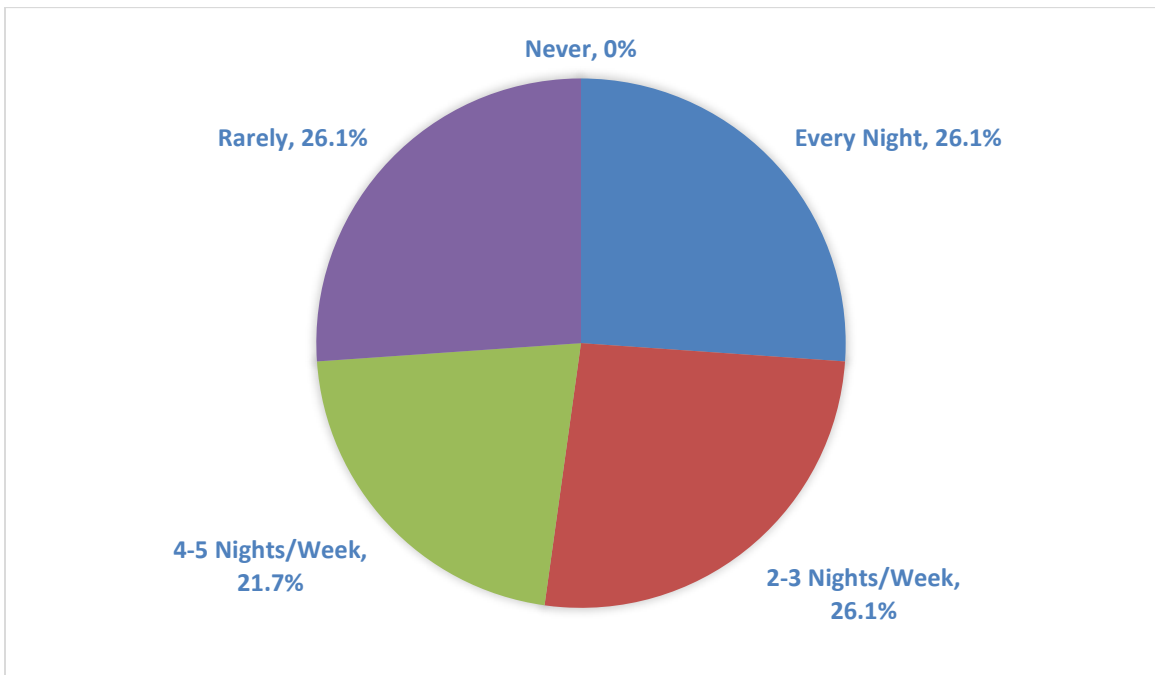


In order to properly compare results, it must be understood that Schuylkill Valley Middle School runs on a block schedule, with only three core classes meeting daily. To further drill down on this data, I needed to know how often teachers assigned homework. Teachers were asked, on average, how many nights a week they assigned homework.

Figure 3 provides those results.

Figure 3

Average Nights of Homework



Looking at the results, 35.2% of parents indicated that their children spent at least one hour per night on homework, while 11.6% of that group indicated that more than two hours was spent on homework each night. Because 26.1% of teachers assigned homework every night and the same percentage indicated that they rarely assigned homework, the amount of time spent on homework from the perspective of parents did not appear to align with the perspective of teachers. Furthermore, 69.6% of the teachers indicated that students should spend 0-15 minutes per night on the homework they

assigned. With the maximum possibility of three core content assignments nightly, no student should average more than one hour of homework per night.

Quality homework involves homework that students can complete independently, meaning it is at an appropriate level and difficulty (Vatterott, 2010; Marzano & Pickering, 2007). Teachers and parents were both asked to identify if homework was expected to be completed independently. Surveys indicated similar results. With a mean score of 3.58, parents agreed with the idea that work should be completed independently. Teacher scores averaged 3.61, also indicating that homework was developed to be completed independently. In addition, with a mean score of 3.02, parents were neutral in response to identifying if homework was often too difficult for their child to complete. These responses indicated that, regarding homework quality, teachers and parents were in agreement.

Research Question 2: What are the comparative benefits and challenges of homework for middle level students? Three common survey statements were given to both parents and teachers to identify homework benefits: *homework is an effective tool to teach responsibility; homework is an effective tool to teach time management; and homework is an effective tool to reinforce skills taught at school.* Teachers' mean scores for these three statements were 4.00, 4.09, and 4.35, representing three of the four highest scoring statements on the survey. Parents' mean scores were 3.70, 3.44, and 3.77, also indicating agreement that homework produced these benefits.

Teachers were also asked to rate two additional statements related to homework benefits: *students who complete homework have a more positive self-image* and *students who complete homework create fewer discipline problems in my classroom.* The mean

scores for these statements were 3.70 and 3.65, respectively, indicating that teachers found a positive correlation between homework completion and these specific positive behaviors.

Parents were asked to identify challenges associated with homework from the following survey statements: *homework causes tension at home* and *homework causes anxiety for my child*. With similar mean scores of 3.45 and 3.48, parents identified homework as a potential social/emotional challenge in the home. As noted previously, parents were also asked if they believed homework was often too difficult for their child to complete. They were neutral in their collective responses.

Research Question 3: What are the educational trends of homework in relation to best practices? Parents were provided with the following specific survey statements regarding homework trends and best practices: *teachers should assign homework at the middle school level* and *teachers provide written feedback on homework assignments*. With homework trends reaching extremes in some areas where districts have decided to eliminate homework altogether, I wanted to know the opinions of the middle school parents. With a mean score of 3.59, parents indicated that they still valued and wanted homework in the middle school. However, when it came to teachers providing feedback, parents indicated that this was not an effective best practice in the middle school with a mean score of 2.18, the lowest score on the parent survey.

Teachers were asked several questions about best practices as it related to current trends in homework. Teachers were asked how often homework was reviewed, graded, and how much homework counted toward the overall class grade. Figures 4–6 provide their responses.

Figure 4

How Often Homework is Reviewed

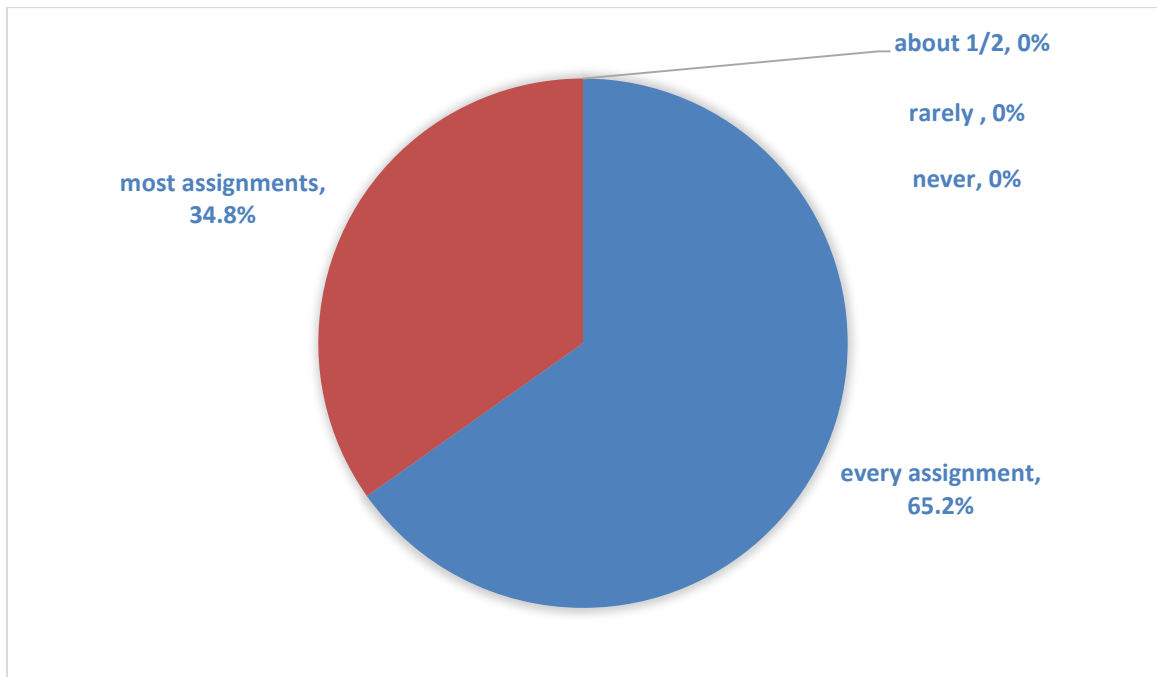


Figure 5

How Often Homework is Graded

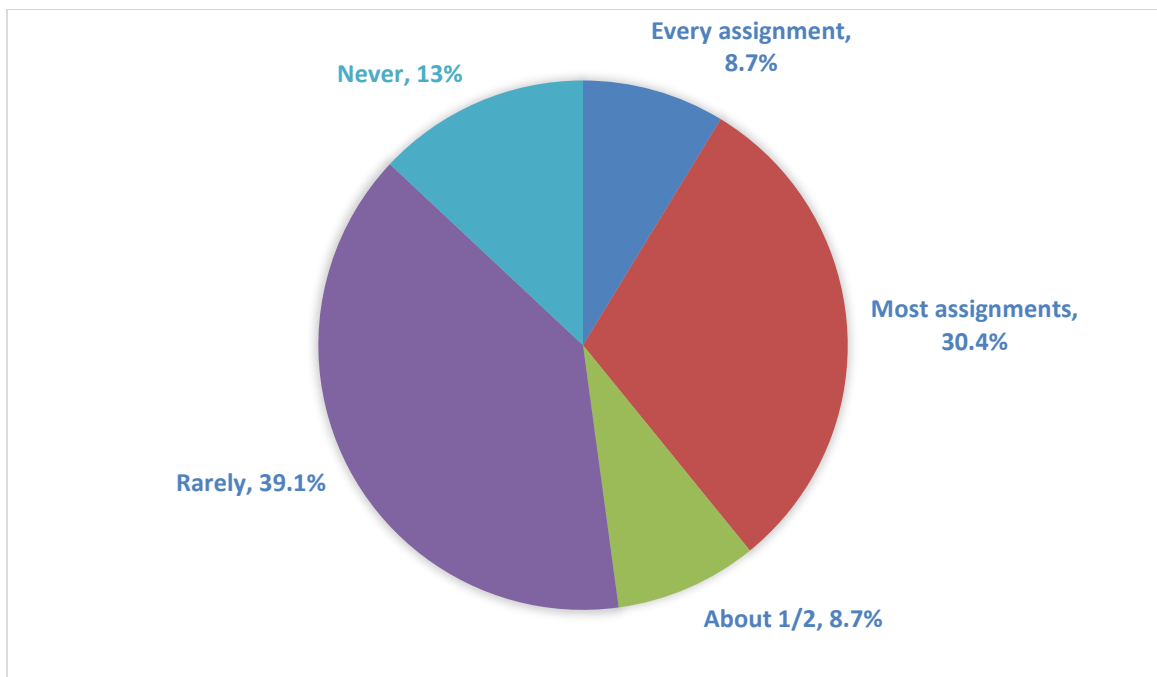
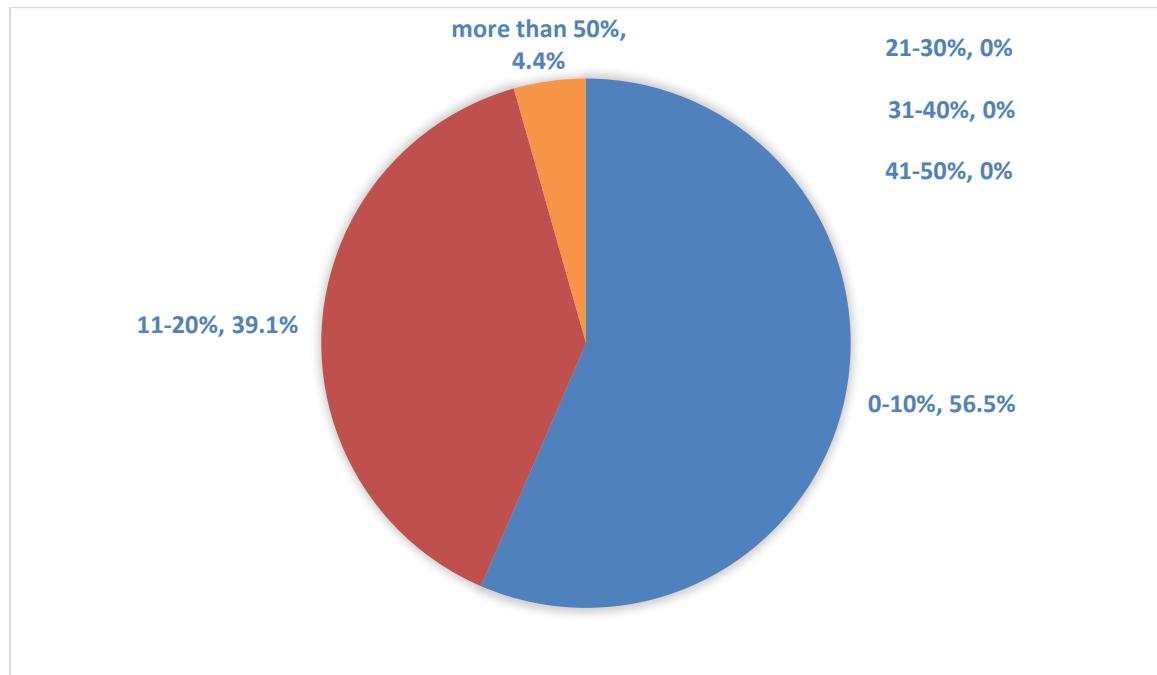


Figure 6*Homework Percentage of Overall Grade*

Teachers were also asked to rate, on the Likert scale, their practices as it related to giving zeros for late or incomplete homework, providing feedback on homework, and their regular communication with colleagues about the amount of homework assigned. The average teacher score for giving zeros for late or incomplete homework to motivate students to complete future homework assignments was 3.00, which indicated that teachers were neutral on this practice. When asked if they regularly provided feedback to students regarding homework assignments, their mean score was 4.09, tied for second highest average score. When asked if they regularly communicated with colleagues about the amount of homework assigned, the teachers' mean score was 3.00.

In an attempt to further validate the data among teachers and parents, I used a neutral mediator to gather archived student gradebook data from quarter two of the 2018–19 school year. Within the data, the mediator pulled five random students' records from

each grade level. The report included the complete gradebook for math, ELA, science, and social studies. Within the gradebook, the total number of homework points possible and overall total points possible were identified to determine the weight of homework on the quarter grade. Table 3 provides the averages of the collected data.

Table 8*Student Gradebook Results*

Students	Subject	Homework points possible	Total points possible	HW % of overall grade
GRADE 5	Math	20	183	11
	ELA	20	464	4
	Science	0	128	0
	Social Studies	0	208	0
GRADE 6	Math	41	232	18
	ELA	38	343	11
	Science	8	164	5
	Social Studies	0	219	0
GRADE 7	Math	100	409	24
	ELA	75	455	16
	Science	36	277	13
	Social Studies	30	180	17
GRADE 8	Math	75	345	22
	ELA	165	625	26
	Science	30	262	11
	Social Studies	40	312	13

“Credibility, dependability, and confirmability can be established through triangulation” (Hendricks, 2017, p. 71). Again, the triangulation of data came from survey data from both teachers and parents, in combination with the collected artifacts from teacher gradebooks. Comparing all three sources allowed me to verify and refute the accuracy of the accumulated data. Parents and teachers both provided perspectives of homework quality and quantity. They were in agreement on quality but varied in opinions related to quantity. In addition, teachers identified the impact of homework on overall grades, with 56.5% indicating that homework counted for 0–10% of the overall grade in their class and 39.1% indicating that homework counted for 11–20% of the overall grade. There was one outlier stating that homework counted for more than 50% of the overall grade. The archived student gradebook data did not line up with those claims. In fact, 11 of the 16 classes (68.9%) averaged 11% or higher value in homework impact. Three of the 16 classes (18.8%) had a homework impact greater than 20%. Of the five classes that averaged 10% or less in homework impact, three of them assigned no homework at all.

Discussion

Parents and teachers provided their perspectives on homework at the middle school. Although both groups shared a similar view about homework quality as it related to appropriate level and difficulty, they were not in agreement about homework quantity. Specifically, parents indicated that students typically spent much more time on homework than what teachers thought.

One of the regular parent concerns that led to the implementation of this action research study related to the amount of homework students received and the time it took

them to complete it. In fact, the parent survey question scoring the highest (3.87 on the Likert scale) was the one stating that *the middle school should adopt a policy that controls the amount of homework assigned*. Additional survey results further supported their concerns. With 35.2% of parents indicating that their child spent more than one hour each night on homework, including 11.6% of that group saying more than two hours per night, the time middle school students spent on homework each night was clearly a concern. With this information, there appeared to be a disconnect among teachers because approximately 70% of those surveyed believed their individual homework assignment should average no more than 15 minutes per night. Compounding this problem was the fact that there was a neutral response (3.00) from teachers when asked if they communicated with colleagues about amount of homework assigned. All of this resulted in parents claiming long nights of homework while teachers assumed that the total number of homework assignments given each night should be completed quickly.

Homework benefits have historically included the assumption that it teaches responsibility and time management, as well as effectively reinforces skills taught in school. Surveyed teachers agreed with this assertion. When asked to comment on the purpose of their homework, 21 of 23 teachers wrote that homework reinforced skills taught in the classroom through words including review, practice, prepare, and reinforce. One teacher summed up the purpose of homework by saying “homework is assigned for students to independently practice the concepts learned in class after having had support from the teacher and peers. Homework’s intention is to allow a student to determine if he or she fully grasps the material without further instruction.” Parent data reflected similar support for these identified homework benefits.

Teachers also agreed that success with homework leads to an increase in self-image and decrease in classroom discipline. This indicated that homework can have a direct impact on overall classroom climate. This supported the notion that effective homework practices should be put in place to increase likelihood of student success, both academically and socially/emotionally.

Next, homework trends and best practices were put into focus. Reviewing homework and providing feedback are necessary for homework to be used as an effective educational tool (Protheroe, 2009; Vincent-Lancrin et al., 2019). Teachers indicated that they reviewed most (34.8%) or every assignment (65.2%), a practice that promotes homework effectiveness. However, while teachers indicated that they regularly provided feedback on homework assignments (4.09 on the Likert scale), parents said that teachers did not provide feedback on homework assignments (2.18 on the Likert scale). This was an alarming difference in ratings and was one that must be corrected because feedback has been identified as having a direct and positive impact on student learning (Walberg & Paik, 2004). Teachers said they gave feedback, yet parents did not see it. A homework guideline requiring feedback would potentially eliminate this disconnect.

Finally, the use of homework in grading was examined. Survey results were compared to archived student gradebook data. In this study, survey results did not align with the gradebook data. While 56.5% of teachers surveyed indicated that homework counted for no more than 10% of the total grade in class, the archived data showed that only five of 16 classes (31.2%) supported that claim. Along with this, 39.1% of teachers indicated that homework counted for 11-20% of the overall class grade, while the archived data showed that 50% of classes fell into this range, with three classes averaging

a homework impact greater than 20%. In terms of assessment and homework accountability, this was an area that must be addressed, as the historical gradebook data did not support the survey data. It should be noted that current homework trends are devaluing the notion of grading homework altogether, instead simply using it as a method of formative assessment (Vatterott, 2018).

Summary

This chapter focused on the analysis of teachers' and parents' perceptions of homework as well as homework benefits, challenges, trends, and best practices. Parents and teachers were surveyed, leading to similarities and discrepancies with their results. Both groups found value in homework and supported its use in the middle school. However, they did not agree on the perception of time needed to complete assignments. Additional gradebook data was reviewed as a way to triangulate the data and support the survey results. In this case, the gradebook data refuted several of the claims related to overall homework impact in grading.

The next chapter will reflect on the previous chapters' information and use that information to draw conclusions about the need for homework reform at the middle school. The extensive literature review, in conjunction with educational best practices, will guide the intended outcome of establishing homework guidelines that Schuylkill Valley Middle School can use to ensure that homework is being used as an effective educational tool to best meet the academic and social/emotional needs of the students.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

This chapter includes conclusions and recommendations based on the summary of the data analysis and literature review. The purpose of this study was to identify the impact of homework on students at Schuylkill Valley Middle School from the perspectives of teachers and parents. Additionally, I wanted to identify best practices for homework at the middle level so that homework could be used as an effective educational tool to best meet the academic and social/emotional needs of the students.

Conclusions

Research Question 1: What are teacher and parent perceptions of homework effectiveness at our middle school? In order to address the goal of this study, which was to establish guidelines for effective homework practices, it was important to truly understand the perceptions of teachers and parents as it related to homework effectiveness. The survey results showed that teachers believed homework was effective at the middle school. One teacher commented that “homework assignments are tasks that need to be completed that students typically do not need my help with. I believe allowing students to complete this work on their own allows the time they spend with me in the classroom to be more valuable.” Another noted that “homework helps me to identify concepts that need to be reviewed in more detail prior to moving on.” Several teachers echoed the effectiveness of homework by writing that “homework reinforces the concepts taught in class.” Along with this, teachers specifically identified the homework benefits associated with self-regulation and other nonacademic purposes. Bembenutty (2011)

discussed the positive effects of homework when students specifically learn to practice self-regulation skills. These specific findings supported the research.

Many parents perceived homework as being effective according to the survey data, but to a lesser degree than teachers did. Several of the 85 comments from the 199 parents surveyed spoke to the value of homework. One parent stated, “I do believe there is value in homework if used effectively to reinforce concepts and skills, and equity practices for all learners are considered.” Another parent noted that “homework is a critical part in learning and to help retain what was taught.” A third parent wrote, “homework is a must at the middle school level! Now is our opportunity to prepare our kids for their next level of school and the real world that can best be embraced through hard work and determination.” It should be noted that the data showed that many teachers surveyed gave grades for homework. Because of this, parents were likely to equate good grades with homework effectiveness (Vatterott, 2011). Additionally, Van Voorhis (2011) found that parents perceived homework as having a positive impact on academic success. Again, the findings of this study supported the research.

Not all parents perceived homework as positive, however. One parent commented, “homework has not made a positive impact on my child’s learning, grades, and social emotional learning.” Another noted that “homework is important, but I feel my child gets too much. I think the school should control the amount of homework that kids are given so they are not up so late doing work. There needs to be a better balance.” While overall parent perception of homework effectiveness was positive, parent perceptions reflected their children’s experiences. One parent expressed concern by saying “I do not believe the teachers have used homework to positively impact my child’s

growth, but actually caused my child to dislike school.” Another said, “my daughter is a great student, but she is up until 11 pm every night trying to finish homework.” Bennett and Kalish (2006) noted that parents whose children had bad experiences with homework, reflected similar negative homework views. In all, the data showed that parents and teachers generally supported the homework effectiveness at Schuylkill Valley Middle School and the findings of this study supported the research.

Research Question 2: What are the comparative benefits and challenges of homework for middle level students? The literature identified many academic and nonacademic benefits to homework. Scholars such as Cooper (2007) and Bennett (2017) indicated that doing homework caused improved academic achievement. One of the teachers surveyed stated that “doing the daily math homework generally leads to more success in terms of higher grades in class.” Another teacher said that homework did a “good job to help prepare for a test.” A parent echoed those thoughts in saying that “I believe the homework given is beneficial and provides practice to further understand what is being taught to them in class.” The gradebook data generally supported these assumptions in that of the 20 student records reviewed, 46 of 65 classes that assigned homework resulted in homework averages equal to or higher than final grade averages. That equated to 71% of grades improved due to homework scores being higher than overall final class grades. However, looking at that percentage from an administrative perspective, I would want to see a higher percentage of students demonstrating greater success in terms of homework grades. This data is reflected in Table 9.

Table 9

Student Homework and Final Grades

		Math		ELA		Science		Social Studies	
		HW Grade	Final Grade	HW Grade	Final Grade	HW Grade	Final Grade	HW Grade	Final Grade
Grade 5 Students	1	95	94	100	97	NA	95	NA	91
	2	100	91	100	86	NA	95	NA	91
	3	90	84	95	89	NA	92	NA	93
	4	90	83	80	82	NA	89	NA	94
	5	100	96	100	94	NA	97	NA	99
Grade 6 Students	6	100	100	100	95	100	89	NA	92
	7	100	91	100	94	100	93	NA	95
	8	100	98	100	91	88	92	NA	86
	9	73	68	92	82	88	79	NA	88
	10	85	64	87	68	88	71	NA	69
Grade 7 Students	11	100	91	97	85	81	84	90	86
	12	100	97	100	92	92	92	90	97
	13	70	73	83	78	75	73	77	64
	14	70	82	93	95	81	88	90	83
	15	85	77	93	83	92	90	90	96
Grade 8 Students	16	91	88	85	84	93	94	85	85
	17	87	80	73	75	100	90	85	86
	18	67	62	73	79	93	78	85	85
	19	67	74	88	95	100	94	100	89
	20	80	86	88	95	93	96	85	89

Homework has benefits beyond academic achievement. Self-regulation skills, as noted with research question 1, have been regularly identified as a benefit associated with homework (Ramdass & Zimmerman, 2011; Bempechat, 2019). According to the survey data, teachers and parents agreed that homework can be effectively used to teach responsibility and time management. One teacher specifically noted that homework “reinforces skills taught in the classroom and teaches some organization, responsibility, and time management skills.” A parent said that “homework teaches responsibility and I wish that a responsibility grade could be added to the report card to show how students perform on homework.” The findings in this study supported the research regarding homework benefits.

Although there is a list of homework benefits, there are also significant challenges attributed to homework. More than 30 years ago, Cooper (1989) identified several challenges, including the impact homework had on leisure time and family activities. Several parents supported this notion, including a comment stating, “homework should never be assigned over weekends and holidays. This should be family time.” Another said, “homework should not be assigned during vacations and holidays. Vacation means a break from school work, exams, and all other stressors. Holidays are times to spend with families.” A third parent commented that “there should never be homework on the weekends. That should be strictly for family time. Everyone has busy lives and we don’t get enough time together.”

Perhaps even more concerning was the potential stress that homework put on students. Vatterott (2019a) stated that, for students in high-achieving middle schools, homework was the number one school stressor. Galloway and Pope (2007), in an earlier

study, made similar claims. The survey data from parents supported this assertion, indicating that homework caused tension in the home and anxiety for the students. Of the 85 parent comments, 15 specifically included the words tension, anxiety, or stress. One parent said, “I agree that homework is important, but in our case it causes a lot of tension in the household.” Another said, “I feel homework is vital to the learning process, but it absolutely causes anxiety and tension at home in that the amount of homework my children bring home directly impacts what they can and cannot do as individuals, as well as what we can and cannot do as a family.” A third parent said, “I understand that homework should reinforce lessons taught at school, but I often feel that it has the opposite effect due to the anxiety it causes.” Having these parent concerns about homework at the middle school was eye-opening and emphasized the need for changes in homework practices. Again, the findings of this study supported the research.

Research Question 3: What are the educational trends of homework in relation to best practices? This question got to the crux of this action research project. After looking at educational trends, I wanted to clearly identify effective best practices that aligned with the research. Regarding educational trends, homework moves in different directions, including some schools eliminating homework altogether. Why was there such variation with homework approach? A big reason was because there was evidence to support the learning benefits of homework for some students (Carr, 2013), while other research suggested that homework negatively impacts students (Bennett & Kalish, 2006; Kralovac & Buell, 2001). Beyond the general use of homework, how homework was or was not graded continued to be an educational trend. Protheroe (2009) advocated for grading homework because it motivated students. However, Vatterott (2018) and Dueck

(2014) believed that homework should not count as a grade. In terms of survey results, teachers were mixed in their use of homework. About half (47.8%) assigned homework every night or almost every night, while 26.1% said they rarely assigned homework and 26.1% only assigned homework two to three nights per week. How homework was graded was even more varied among the teachers. Almost a third (30.4%) of teachers surveyed indicated that they graded most assignments, while 39.1% said they rarely graded homework.

With such variety in practice, some parents noted specific discrepancies. One said, “my child has way more homework this year compared to last year.” Another said, “I feel my son should have more homework each week. He doesn’t come home with homework very often.” A third parent said, “my daughter is in eighth grade and that grade has way too much homework.” Parents were also mixed in their comments about grading. One parent noted that, “although I understand that homework is important, I think the grades shouldn’t be effected by the homework. My understanding is that homework is to see what the students need help with, not to grade the work.” Another said, “homework should only be graded on attempted completion, not if correct.” In contrast, a different parent said, “if homework is necessary, then it should be graded.” In all, I believe the findings of this study indicated that more consistency was needed in the homework practices in order to support the research regarding homework trends.

Time and frequency homework best practices have long been researched. Students who get homework regularly showed greater gains than those who only received homework sporadically (Rivero, 2017). Cooper’s (2007) “10 minute rule” continues to be the homework standard for time, which was also supported by the National PTA and

the National Education Association (Reilly, 2016). Along with time and frequency, providing homework feedback is an educational best practice. Walberg and Paik (2004) noted that students learned more when homework was commented upon and discussed.

In these areas, there was clearly disagreement among teachers and parents. The majority of teachers surveyed (69.6%) said that their nightly homework assignments should take 15 minutes or less to complete. Collectively, all nightly assignments should fit within Cooper's (2007) guidelines. However, 23.6% of parents indicated that homework assignments took between one and two hours each night to complete, and 11.6% said that more than two hours was spent on homework each night.

Even more alarming were the responses regarding feedback. Teachers agreed, with a mean rating of 4.09, that they regularly provided feedback to students regarding homework assignments. Parents disagreed, with a mean rating of 2.18, saying that teachers did not provide feedback on homework. In this situation, parent and teacher perceptions differed greatly, supporting the need for consistent guidelines so that homework practices support the research regarding educational best practices.

Homework Guidelines

The purpose of this study was to identify the impact of homework on students at Schuylkill Valley Middle School from the perspective of teachers and parents. In addition, I wanted to identify best practices for homework at the middle level so that homework is used as an effective educational tool to best meet the academic and social/emotional needs of the students. By doing so, I took the results of this study and developed homework guidelines to use moving forward at the middle school. I believe

this will lead to tangible improvements to the homework practices, which will greatly benefit the students.

The homework guidelines include parameters beyond the existing school board policy (No. 130) and are as follows:

- Assigned homework (work to be completed independently outside the classroom) must be collected.
- Homework should be corrected for all wrong answers and returned to the students with written feedback.
- Homework must be meaningful to the students, directly relating to the curriculum.
- Homework for all middle school students should not exceed one total hour per night. This is combining all subjects.
- Homework grades shall not count more than 10% of student's grade and shall not be able to reduce a student's overall classroom grade by more than one letter grade (A to B, B to C, C to D, or D to F).
- Homework that is marked for completion or as student responsibility shall not be included in subject specific grades.
- Students shall not receive a "0" for missed homework. They should receive additional time to complete the assignment or be given an alternate assignment to be completed with the teacher during ISTA.
- Homework should only be repetitive in skill and style when the teacher judges it to be appropriate.
- Homework may not be assigned over holidays or extended breaks.

Implementing these homework guidelines will have no fiscal implications for the middle school or school district. The guidelines will be communicated to all stakeholders at no additional cost. Summer mailings will include a detailed explanation of the new homework guidelines. Changes will also be communicated through social media, including the middle school Facebook page and website.

Limitations

This research study sought to identify effective homework practices aligned with educational best practices through the analysis of parent and teacher perceptions of homework and a review of educational literature. To establish transparency, it was necessary to identify some limitations that existed in this study. The following limitations were identified:

- This study had a relatively small sample size of teachers, thus the findings cannot necessarily be generalized to the overall teaching population.
- Human bias was an issue because of the topic and survey format. The participants may have withheld information or provided inaccurate details.
- Researcher bias had to be addressed because I had some preconceived ideas about the outcome based on previously observed homework practices.

I attempted to address the limitations to strengthen the credibility of the study, using the following safeguards:

- Guarantee of confidentiality prior to administering the survey to reduce human bias.

- This study focused on Schuylkill Valley Middle School. However, the sample population of teachers met the criteria that reflected the general population being studied.
- I recognized biases prior to creating the surveys and ensured that questions were not leading or biased.

Recommendations

Future Plans. The results of this study will be shared with the Schuylkill Valley Middle School staff to build upon their knowledge on the topic of homework. Significant research has been completed on the relationship between homework and student achievement. However, having a better collective understanding of teachers' and parents' perceptions of homework will help to encourage a change to improved homework practices. As the building leader, I will benefit from a better understanding of these attitudes and practices and, more importantly, the students will benefit. As a result of this study, I am recommending the following actions:

- Develop a shared purpose for homework. Just like having a vision and mission for the school, I believe it is essential to develop a meaningful purpose for homework so that homework is used in the most effective ways to meet the varying need of all students.
- As the building principal, I need to become more aware of the homework practices of the teachers in the building and evaluate these practices. Teachers will be held accountable for homework practices to ensure that all assignments are meaningful and have a sound educational purpose.

- Teachers need to receive professional development on effective homework practices, including effective homework design. This will be a crucial step towards overall success in the goal for improved homework practices.
- I will meet with district administration to discuss the potential to expand the created homework guidelines across the district, with a focus on a modified version of Cooper's (2007) "10 minute rule," as deemed appropriate at each level.
- I will put an increased focus on communication between teachers and parents in hopes of reducing tension and anxiety in the home caused by homework. Clear, detailed expectations will be shared with families outlining how much and what type of support is expected from parents based on the new homework guidelines.

Implications for Further Research. Based on this study, the following recommendations have been identified for future research regarding homework:

- Conduct research on the impact of eliminating homework grades. Vatterott (2018) suggested that homework should only be used as formative assessment and should not count as a grade. Parent and teacher perceptions of homework effectiveness may be influenced if homework was not graded. Additional research may help identify whether or not homework deepens learning or is just relied on to improve overall grades.
- Use qualitative research to examine administrators' perceptions of homework effectiveness and purpose.
- Use qualitative research to examine students' attitudes and perspectives of homework effectiveness and purpose and compare those results with that of parents and teachers to identify similarities and differences.

- Use qualitative research, including interviews and focus groups, to gain a clearer understanding of teachers' and parents' perceptions of homework, including their experiences, both positive and negative, as it relates to homework.
- Conduct a quantitative study among schools that do assign homework and schools that do not assign homework. Homework effectiveness could be measured through the analysis of standardized test scores.
- Conduct an action research study where teachers provide students with a menu of homework options. Carr (2013) noted that when students are personally connected to the content of their homework, they will learn more and be more motivated. Differentiating homework through student choice could be used to determine which types of homework most benefit student learning.
- Conduct a qualitative or quantitative study examining the homework perceptions of parents and students as students enter and exit middle school.

Summary

This chapter focused on conclusions and recommendations based on the research and data analysis surrounding homework effectiveness. The data supported the notion that parents and teachers supported the overall use of homework at the middle school. Along the way, I was able to identify specific benefits and challenges associated with current homework practices. Teachers clearly believed that homework was an effective tool used to improve academic achievement. Along those lines, homework data showed that homework grades had a positive impact on overall grades, with 71% of sampled grades increasing due to homework scores. However, parents' voices were loud and

clear when it came to how much homework was assigned and the stress that homework put on the students.

After reviewing the data, it was clear that there was inconsistency, as a school, when it came to homework practices. Some teachers gave no homework, while others assigned homework every night. Some counted homework for as much as a quarter of the overall class grade, while others did not grade homework at all. These irregularities in practice emphasized the need for consistent homework guidelines that all of the teachers can follow. As a result, I developed homework guidelines based on educational best practices identified in the research. These guidelines were outlined in this chapter. Finally, recommendations for future plans and implications for further research were made based on the findings and conclusions.

Action Research Project Summary

On March 13, 2020, the educational world was turned upside down. COVID-19 completely changed the way business was handled as a middle school. Teachers went from assigning homework at the end of class after instruction, to all work being completed at home. While some students prospered in this new learning environment, many others struggled, not knowing how to effectively manage doing so much work at home. As the principal of Schuylkill Valley Middle School, I am tasked with ensuring that the best educational opportunities are provided for all students, but how can I do this when the students are not physically in the building with the collection of talented, hardworking teachers to teach them? How can I do this when there is no control over the structure or lack of structure in the home? These same questions got to the heart of this

project. How do I ensure that the practices in assigning traditional homework are effective to best meet the needs of the students?

The purpose of this action research project was to identify the impact of homework on students at Schuylkill Valley Middle School from the perspectives of teachers and parents. Additionally, I wanted to identify best practices for homework at the middle level so that homework could be used as an effective educational tool to best meet the academic and social/emotional needs of the students. Based on the research, there is no one correct answer about whether homework is effective or ineffective, but I believe that quality homework matters.

This study revealed that there were several inconsistencies in homework practices. Survey results did not always align with the anonymously sampled gradebook data. Teachers and parents also varied in perspectives of time necessary to complete homework. This cannot continue. Teachers and parents must work together to provide the best opportunities and support for the students.

I do not know what the “new normal” will look like at Schuylkill Valley Middle School. I am eager for students to return to the halls and meet face to face with their teachers and principals. With that, homework will continue to be assigned, but it will follow the new guidelines developed as part of this study, because quality homework matters. In fact, when homework is designed and implemented properly, it serves as a valuable tool for reinforcing learning (Carr, 2013). When this result is achieved, I will know that educational best practices in homework are truly being used to meet the needs of all students!

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APPENDICES

Appendix A

Parent Survey

LETTER FOR PARENT SURVEY

Dear Participant:

As principal of the middle school, I am working on my Doctorate in Education in Administration and Leadership at the California University of Pennsylvania. In order to complete my studies, I need to complete a capstone project. The name of my project is *Impact of Homework Practices on Middle Level Students (Grades 5 – 8)*.

One purpose of this study is to determine what perceptions of homework parents have. I would like to give a brief survey to parents/guardians of students attending our middle school. The entire survey should take you less than 10 minutes to complete. You will be asked questions about your homework beliefs, how effective you think homework is, and what the purpose of homework is.

Because this study deals with homework, the risks of participating are minimized. Your confidentiality will be protected as best as possible. Responses will be anonymous, with the only demographic question being the grade level of your child. Although your rights and privacy will be protected, the California University of PA Instructional Review Board (IRB) and people working on this research can view the study records.

Taking part in this study is completely voluntary. You may decide not to take part in this study. You can exit the survey if you want to stop completely, without penalty, prejudice, or loss of benefits.

This study was approved by the California University of Pennsylvania Institutional Review Board. This approval is effective 08/26/2019 and expires 08/09/2020. If you have any questions related to this research or any problems, you may contact me at (610) 916-5617. I am working on this project together with my Faculty Capstone Committee Advisor, Dr. Peter Aiken. You may contact him at aiken@calu.edu. Dr. Cindy Mierzejewski, Schuylkill Valley School District superintendent, is serving as my External Capstone Committee Member. You may contact her at cmierzejewski@schuylkillvalley.org.

Sincerely,

Joshua Kuehner

Clicking the I AGREE button on the survey indicates:

- I have read the above information
- I agree to volunteer
- I am a parent or guardian of a middle school student
- I am at least 18 years of age

1. I agree to participate in this survey



I AGREE



I DO NOT AGREE

2. On average, how much time does your child spend on homework each night

- a. 0-15 minutes
- b. 15-30 minutes
- c. 30-60 minutes
- d. 1-2 hours
- e. More than 2 hours

Please use the following scale to circle an answer the questions below.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5
3. Homework is an effective tool to teach responsibility				
1	2	3	4	5
4. Homework is an effective tool to teach time management				
1	2	3	4	5
5. Homework is an effective tool to reinforce skills taught at school				
1	2	3	4	5
6. Students are expected to complete homework assignments with help from parents				
1	2	3	4	5
7. Students are expected to complete homework assignments independently				
1	2	3	4	5
8. Teachers should assign homework at the middle school level				
1	2	3	4	5
9. Homework is often difficult for my child to complete				
1	2	3	4	5
10. My child's grade is significantly impacted by homework				
1	2	3	4	5

11. I understand the value and purpose of my child’s homework assignments

1 2 3 4 5

12. The middle school expects teachers to assign homework

1 2 3 4 5

13. Teachers provide written feedback on homework assignments

1 2 3 4 5

14. The middle school should adopt a homework policy that controls the amount of homework assigned

1 2 3 4 5

15. Homework causes tension at home

1 2 3 4 5

16. Homework causes anxiety for my child

1 2 3 4 5

17. Additional comments regarding homework assigned at the middle school level

My child is in the following grade

5

6

7

8

Appendix B

Teacher Survey

LETTER FOR TEACHER SURVEY

Dear Participant:

My name is Joshua Kuehner, and I am a doctoral student at California University of Pennsylvania. I am working on my Doctorate in Education in Administration and Leadership. In order to complete my studies, I need to complete a capstone project. The name of my project is *Impact of Homework Practices on Middle Level Students (Grades 5 – 8)*.

One purpose of this study is to determine what perceptions of homework teachers have. I would like to give a brief survey to teachers of students attending our middle school using a Google Form. The entire survey should take you less than 10 minutes to complete. You will be asked questions about your homework beliefs, how effective you think homework is, and what the purpose of homework is.

Because this study deals with homework, the risks of participating are minimized. Your confidentiality will be protected as best as possible. Responses will be anonymous, with the only demographic questions being the grade level(s) that you teach. Google Forms use encryption software and does not collect IP addresses. Although your rights and privacy will be protected, the California University of PA Instructional Review Board (IRB) and people working on this research can view the study records.

Taking part in this study is completely voluntary. You may decide not to take part in this study. You can exit the survey if you want to stop completely, without penalty, prejudice, or loss of benefits.

This study was approved by the California University of Pennsylvania Institutional Review Board. This approval is effective 08/26/2019 and expires on 08/09/2020. If you have any questions related to this research or any problems, you may contact me at (610) 916-5617. I am working on this project together with my Faculty Capstone Committee Advisor, Dr. Peter Aiken. You may contact him at aiken@calu.edu. Dr. Cindy Mierzejewski, Schuylkill Valley School District superintendent, is serving as my External Capstone Committee Member. You may contact her at cmierzejewski@schuylkillvalley.org.

Sincerely,

Joshua Kuehner

Clicking the I AGREE button on the survey indicates:

- I have read the above information
- I agree to volunteer
- I am a teacher

- I am at least 18 years of age
1. I agree to participate in this survey
 - I AGREE
 - I DO NOT AGREE

 2. On average, I assign homework:
 - a. Every night
 - b. 2-3 times per week
 - c. 4-5 times per week
 - d. Rarely
 - e. never

 3. On average, how much time is needed to complete the homework you assign each night?
 - a. 0-15 minutes
 - b. 15-30 minutes
 - c. 30-60 minutes
 - d. 1-2 hours
 - e. More than 2 hours

 4. On average, how much time in total should a middle school student spend doing homework each night?
 - a. 0-15 minutes
 - b. 15-30 minutes
 - c. 30-60 minutes
 - d. 1-2 hours
 - e. More than 2 hours

 5. How often is homework reviewed in your classroom?
 - a. Every assignment
 - b. Most assignments
 - c. About $\frac{1}{2}$ assignments
 - d. Rarely
 - e. Never

13. Students are expected to complete homework assignments independently

1 2 3 4 5

14. Parents want students to have homework

1 2 3 4 5

15. The middle school administration expects teachers to assign homework

1 2 3 4 5

16. Giving zeros for late or incomplete homework motivates students to complete future homework assignments

1 2 3 4 5

17. I regularly provide feedback to students regarding homework assignments

1 2 3 4 5

18. Students who complete homework have a more positive self-image

1 2 3 4 5

19. I regularly communicate with my colleagues about the amount of homework assigned

1 2 3 4 5

20. Students who complete homework create fewer discipline problems in my classroom

1 2 3 4 5

21. What is the purpose of the homework that you assign?

The grade level(s) that I teach:

5

6

7

8

Appendix C

Superintendent Participation Approval



SCHUYLKILL VALLEY SCHOOL DISTRICT
ADMINISTRATION CENTER
929 LAKESHORE DRIVE
LEESPORT, PENNSYLVANIA 19533-8631
www.schuylkillvalley.org



OFFICE OF THE SUPERINTENDENT
610-916-0957
FAX 610-926-3960

I grant permission to Joshua Kuehner, Doctoral Candidate, to invite the participation of middle school teachers and parents of middle school students in the Schuylkill Valley School District to participate in the research study entitled *The Impact of Homework Practices on Middle Level Students (Grades 5-8)*. I also grant permission to access the gradebooks of middle level teachers as part of this research. The anticipated study will run from August 26, 2019 to August 9, 2020.

Sincerely,


Dr. Cindy Mierzejewski
Superintendent

Appendix D

IRB Approval

Institutional Review Board
California University of Pennsylvania
Morgan Hall, 310
250 University Avenue
California, PA 15419
instreviewboard@calu.edu
Melissa Sovak, Ph.D.

Dear Joshua,

Please consider this email as official notification that your proposal titled "Impact of Homework Practices on Middle Level Students (Grades 5-8)" (Proposal #18-084) has been approved by the California University of Pennsylvania Institutional Review Board as amended.

The effective date of approval is 8/15/19 and the expiration date is 8/14/20. These dates must appear on the consent form.

Please note that Federal Policy requires that you notify the IRB promptly regarding any of the following:

- (1) Any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented)
- (2) Any events that affect the safety or well-being of subjects
- (3) Any modifications of your study or other responses that are necessitated by any events reported in (2).
- (4) To continue your research beyond the approval expiration date of 8/14/20 you must file additional information to be considered for continuing review. Please contact instreviewboard@calu.edu

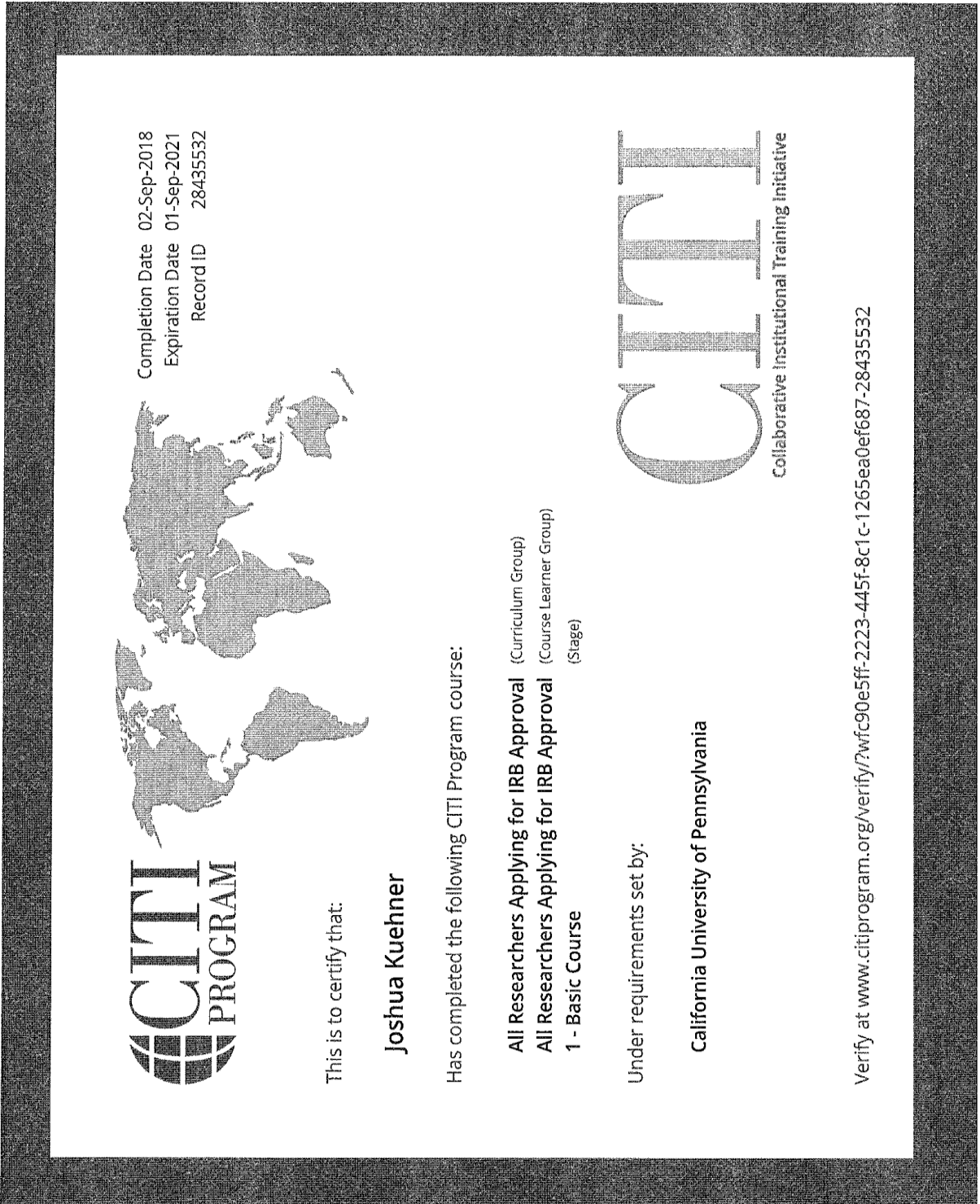
Please notify the Board when data collection is complete.

Regards,

Melissa Sovak, PhD.
Chair, Institutional Review Board

Appendix E

CITI Program Certificates



Completion Date 02-Sep-2018
 Expiration Date 01-Sep-2021
 Record ID 28435532



This is to certify that:

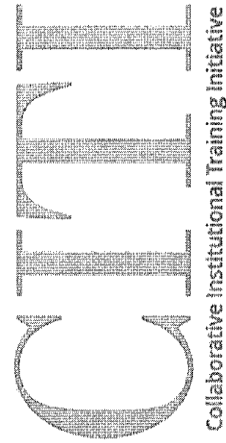
Joshua Kuehner

Has completed the following CITI Program course:

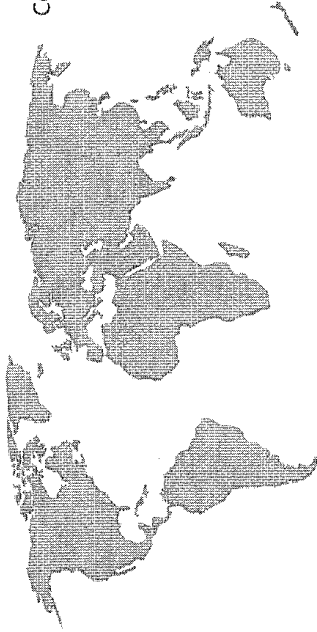
All Researchers Applying for IRB Approval (Curriculum Group)
All Researchers Applying for IRB Approval (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

California University of Pennsylvania



Verify at www.citiprogram.org/verify/?wfc90e5ff-2223-445f-8c1c-1265ea0ef687-28435532



Completion Date 03-Sep-2018
Expiration Date 02-Sep-2022
Record ID 28435531

This is to certify that:

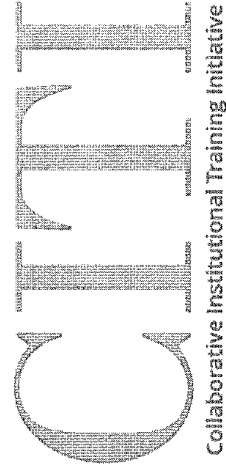
Joshua Kuehner

Has completed the following CITI Program course:

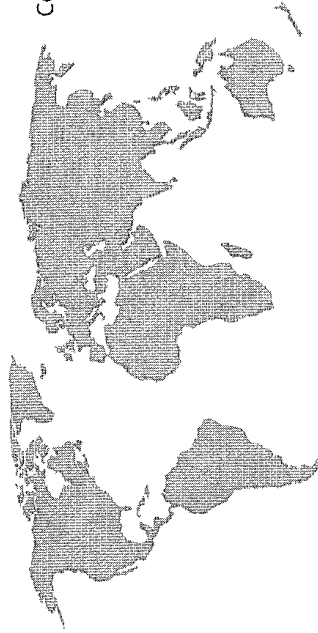
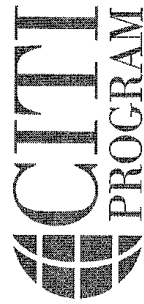
CITI Conflicts of Interest (Curriculum Group)
Conflicts of Interest for Project Personnel (Course Learner Group)
1 - Stage 1 (Stage)

Under requirements set by:

California University of Pennsylvania



Verify at www.citiprogram.org/verify/?w36bc6783-71f5-46fd-b566-352097910841-28435531



Completion Date 11-Sep-2018
Expiration Date 10-Sep-2021
Record ID 28435530

This is to certify that:

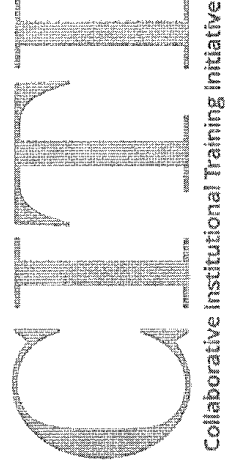
Joshua Kuehner

Has completed the following CITI Program course:

- RCR Basic Course (Curriculum Group)
- RCR Basic Course (Course Learner Group)
- 1 - Basic Course (Stage)

Under requirements set by:

California University of Pennsylvania



Verify at www.citiprogram.org/verify/?w43641483-01f6-4bff-8c26-26b03a721219-28435530