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Strategies and Interventions for Increasing Homework Completion and Accuracy

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By

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Dedication

This thesis is dedicated to my parents: Without your unwavering support and prodding, none of

this would have ever happened.

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CHAPTER ONE: INTRODUCTION

Statement of the Problem

Homework has been utilized as a supplement to classroom teaching for over 100 years in America, but the views of homework continue to vary widely (Cooper, Lindsay, Nye, & Greathouse, 1998). Homework is often the source of considerable conflict between and among teachers, parents, and students (Miller, & Kelley, 1991; Olympia, Sheridan, Jenson, & Andrews, 1994).

Students often fail to see the value of completing homework (Eilam, 2001), and the struggle some parents endure while getting their child to complete homework often increases tension and elevates stress levels between parents and their child. Teachers can become increasingly frustrated with students who fail to finish their homework and whose grades may suffer because of it. Teachers and parents can both feel the stress due to incomplete homework and instead of working together to solve the problem, they often take out their frustrations on each other (Bryan, Burstein, & Bryan, 2001). I am curious, then, to learn more about why a century-old educational practice that causes such discord and tension is still a foundational piece of education? More specifically, I wonder if homework is important or even necessary. and if it can be used in ways that facilitate student learning?

I recognize that homework can serve multiple purposes. Teachers assign homework so students can complete unfinished work as well as practice and reinforce the concepts from the day's lesson. They may also utilize homework as a way of strengthening the school-to-home connection with parents and family members

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(Epstein, & Van Voorhis, 2001). Studies have shown that there is a positive relationship between homework and academic achievement (Bryan & Nelson, 1994; Kodippili, & Senaratne, 2008; Trautwein & Ludtke, 2009). Whether measured by achievement test scores or overall grades, students who complete homework on a regular basis tend to earn higher marks (Keith, Diamond-Hallam, & Fine, 2004).

While improving the rate of homework completion is an important goal for teachers and administrators, the accuracy of completed homework needs to be considered as well. Miller and Kelley (1991) concluded, "homework may enhance classroom performance only when completed as a reasonable level of accuracy" (p. 179), making homework completion and accuracy logical targets for improving students' academic performance.

My Beliefs About Homework

As a high school math teacher, the two biggest struggles I faced were getting students to complete their homework and to do so with accuracy. Before the issue of homework correctness can be addressed, the problems concerning homework completion must be explored. If, as Miller and Kelly (1991) suggest, the amount of time students spend on homework is directly related to academic achievement then, the implication is that if teachers assign more homework, students would spend more time on-task and therefore learn more (Dettmers, Trautwein, Lüdtke, Kunter, & Baumert, 2010).

I believe that this is a somewhat narrow-minded view and an ill-informed recommendation as there are a number of influencing factors, many of them unique to each school district and the students, teachers and parents at each school. Schools would then be more effective and the performance of United States students would improve (Miller, & Kelley, 1991). However, this recommendation by Miller and others may be too simple. Merely assigning more homework is a perfunctory response to a collection of complex issues that prevent students from completing their assigned work and doing so with attention and accuracy. I believe that students who currently do little or no homework are not likely to work harder and longer just because more homework is assigned. Simply increasing the quantity of work to be done is not going to scare or guilt a student into becoming motivated.

In my own experiences teaching mathematics for grades seven through twelve, I was left with the task of convicting students not to buy into the notion that homework was just a boring afterschool activity that they had to complete. As a teacher, I believe that there must be something I can do to encourage students to put effort into their homework and care about how they do on it. This analytic review of literature, then, is aimed to help me gather strategies, methods and interventions to increase both my students' homework completion and their accuracy.

Views on Homework

Homework has not always been viewed as a positive way to reinforce learned concepts, and society's fluctuating views of liberalism and conservatism have caused

homework to be looked upon as both a blessing and a curse. (Keith, Diamond-Hallam, & Fine, 2004). Popular public opinion has fluctuated back and forth, especially over the past century (Keith, Diamond-Hallam, & Fine, 2004). An article in a 1913 issue of *Ladies Home Journal* described homework as "a waste of time" and a medical doctor went as far to say that it caused "brain congestion" (Bryan & Sulliven-Burstein, 1998, p. 263). There was another backlash against homework in the 1940s and 1960s when educators and administrators viewed homework as intruding on the private time of students and placing an excessive demand on academic success (Keith, Diamond-Hallam, & Fine, 2004). Homework began to be viewed by parents and teachers as a symptom of excessive pressure on students to succeed. (Cooper, Lindsay, Nye, & Greathouse, 1998).

A Nation at Risk, published in 1983 by the National Commission on Excellence in Education, is considered a landmark treatise in the educational history of modern American and contributed to the ever-growing sense that American schools are failing. The authors of *A Nation at Risk* (Gardner, & National Commission on Excellence in Education, 1983) made the argument for higher standards for all American students and an imperative need to overhaul the United States' education system. The release of the report compared the education of students from the United States to other countries around the world and its findings revealed that not only was the United States falling behind other industrialized nations, but that the gap was widening.

The results of the report touched off a wave of local, state, and federal reform efforts. In 1940, the average student in the United States spent between 60 to 120 minutes per week on homework (Hall & Zentall, 2000). After the report was published, time spent on homework skyrocketed to an average of 80 minutes per night (Hall & Zentall, 2000).

In the wake of growing concern for achievement test scores and the global competitiveness of students in the United States, the general perception of the value of homework has experienced its third renaissance in the past 50 years (Cooper, Lindsay, Nye & Greathouse, 1998). However, press reports within the last decade suggest that the United States may now be reverting to its previously held anti-homework views (Keith, Diamond-Hallam, & Fine, 2004). Kralovec and Buell (2001) report that citizens are running for school board positions on no-homework platforms. In the last decade, White middle-class parents have increased their time spent at work by nearly six full-time weeks while African-American middle-income families average 500 hours more than white families (Mishel, Bernstein, & Schmitt, 2001). Time available for parents to help with homework is shrinking, which has increased the tension between parent and child caused by homework. According to Kravolec and Buell (2001), "Fifty percent of parents reported having a serious argument with their children over homework, and 34 percent reported homework was a source of stress and struggle" (p. 40). The authors also make the argument that homework reinforces the social imbalance inherent in the disproportionate allocation of educational resources in the United States. Some students go home to college-

educated parents and have unfettered access to computers with limitless databases. Other students have family responsibilities, parents who work in the evening and no educational resources in their homes. The current, ongoing argument over the utility of homework has produced research to more closely look at whether and how children gain from homework (Dettmers, et al. 2010).

United States Students are Falling Behind

The purpose of this analytic review of literature is to explore and analyze research pertaining to interventions and strategies aimed at improving students' homework completion and accuracy. As I indicated above, the United States continues to lag behind a growing number of countries in every aspect of educational achievement and success (Miller, & Kelley, 1991). The 2009 Organisation for Economic Cooperation's Programme for International Student Assessment (PISA) test results reveal the United States is 17th in reading, 32nd in mathematics and 23rd in science behind Korea, Canada, Japan, Australia and most European countries. The scores of students from the United States in both math and science were below the Organisation for Economic Cooperation and Development (OECD) average (2010). The high school graduation rates for students in the United States – once at the top of international rankings – have been dormant at about 70 percent since the 1970s, while nations like Finland, Norway, Germany, Japan and South Korea have surpassed the United States and now graduate more than 90 percent of their students (Stulberg & Weinberg, 2011).

Surprisingly, the average time spent on math homework by students from the aforementioned countries is lower than their United States counterpart, yet their average scores were higher on the 2003 PISA test (Dettmers, Trautwein & Lüdtke, 2009). This implies that time spent on homework is not the mitigating factor for the poor test scores of America's students. These rankings illustrate the decline of United States students on a global stage, as the 2003 PISA test results showed the United States 13th in reading, 28th in mathematics and 20th in science, with the most recent results showing the United States was surpassed by Estonia, Slovenia and the United Kingdom (Lemke, Sen, Pahlke, Partelow, Miller, Williams, & Westat, 2004).

While approximately 60 percent of U.S. high school graduates go to college, only about half of those students are adequately prepared with a degree; the statistics are much worse for students of color with only about 17 percent of African American young people and 11 percent of Hispanic youth earning a college diploma (Stulberg & Weinberg, 2011). While students of color will become the majority by 2025, the investments in their education continue to be substantially unequal and insufficient to satisfy current demands for the kinds of learning necessary to be successful in today's job market (Stulberg & Weinberg, 2011). In addition, there is a disparity in the funding of schools predominately attended by students of color and these schools are more segregated now than they were 25 years ago (Stulberg & Weinberg, 2011).

Homework Changes as Students Age

Several noticeable changes in homework have been reported as students progress from elementary school to middle school to high school (Bryan, & Nelson, 1994). The difficulty level of homework assignments increases as students move from practicing rote memorization and practice exercises at the elementary level to working with the application of these skills at the middle and high school levels (Theodore, DioGuardi, Hughes, Aloiso, Carlo, & Eccles, 2009). The quantity of homework that teachers assign is likely to increase as the expectations teachers and parents place on students increases (Bryan, & Nelson, 1994). The relationship between homework completion and academic achievement exists at the kindergarten through sixth grade levels, and continues to strengthen as students progress in their education (Theodore, DioGuardi, Hughes, Aloiso, Carlo, & Eccles, 2009). While students in elementary school often receive teachers' written comments on their homework assignments, for example- Good job lining up your number columns; Don't forget to cross out after your borrow when subtracting, the frequency of individualized feedback decreases as students enter junior high (Bryan, & Nelson, 1994). This is likely due to the significant increase in the number of students seen each day by teachers at the junior and high school levels (Bryan & Nelson, 1994).

Bryan, Burstein and Bryan (2001) state that "learning requires student cooperation that in turn demands that students value schoolwork, find it meaningful, and are motivated to succeed in school" (p. 171). Student motivation begins to decrease at the junior high level due to a combination of reasons including the onset

of puberty, diminished parental oversight and increasing difficulty of material (Bryan, & Nelson, 1994; Xu, 2005).

As students grow and mature, the expectations placed on them by parents, family and society increases. Studies performed by Bryan (1994, 2001, 2004) have demonstrated the positive association between parental involvement and children's academic performance. Actively involved parents set up rules and rituals for their children, which establish daily routines when it comes to completing daily homework. Students with minimal parental involvement suffer from a lack of structure with regards to completing homework. Failing to establish a structured homework routine may lead to poor study habits and a low homework completion level. Some parents become less involved as their children get older, and as the academic content of the homework becomes increasingly complex, they may feel their ability to help their children with their work is inadequate. (Epstein, & Van Voorhis, 2001). Additionally as children advance in grades, some parents may believe that a greater sense of responsibility and self-management related to academics increases, and many students embrace this newfound independence (Bryan, & Burstein, 2004). While some parents find homework increasingly difficult to understand, others may be too busy or disinterested to help their children, especially when it comes to mathematics (Axelrod, Zhe, Haugen, & Klein, 2009).

Introduction of Involved Stakeholders

To date, only a handful of researchers have investigated the effects of homework completion and accuracy on student learning (Bryan & Nelson, 1994; Kodippili & Senaratne, 2008; Theodore, DioGuardi, Hughes, Aloiso, Carlo, & Eccles, 2009; Trautwein & Ludtke, 2009). Theodore et al. (2009) concluded that students who complete their homework on a regular basis consistently earn higher grades. Students who fail to turn in their homework or turn in assignments riddled with errors are more likely to be referred for special education services.

I believe that there are three stakeholders who are involved in the process of increasing the completion and the accuracy of work done outside the classroom: students, teachers, and parents/families. Each stakeholder plays a different role and has various contributions to the process of homework completion and its accuracy.

Axelrod, Zhe, Haugen and Klein (2009) suggest that students need to better self-manage themselves with regard to their homework assignments. In my own practice, I have found that providing the same routine homework is soon meet with refusal and apathy on the part of students. Students should be challenged and the presentation of assignments needs to be varied. While I find this to be a valid suggestion, I also feel that this can be difficult to implement. Time available to plan with other teachers, craft unique and collaborative projects, and create homework that is diverse in its presentation is very limited. It is quite easy to fall into the habit of developing a worksheet with ten math equations to solve with a few word problems to challenge the students who will finish the entire assignment. As a professional, I

recognized that it is my responsibility to challenge myself to engage my students on a daily basis. Cooper, Lindsay, Nye and Greathouse (1998) recommend that teachers utilize strategies to hold students' interest in the work they perform outside of school. I, myself, have not always put my greatest efforts into creating meaningful homework assignments or provided regular feedback to my students. As a result, my students' completion rate was not very high. Hong, Milgram and Rowell (2004) believe that parents need to assist their children when necessary and provide an environment that is best suited for their students' particular learning styles. I have experienced parental involvement of every degree while teaching in an urban school district in western New York. While a number of parents are quick to accuse and place blame, the majority of parents want the best for their children. They are often not sure of what they should do at home but are open to suggestions and welcome continued communication from me, whether it be good or bad.

Summary

In the following analytic review of literature I examine the work of a number of authors and researchers who discuss strategies and interventions aimed at improving students' homework completion and accuracy rates. In the next chapter, I present and discuss the specific roles that students, parents, and families play and the contributions of teachers when it comes to homework. I discuss a variety of ways that teachers can encourage students to complete their homework and do so with accuracy. In chapter three, I discuss the implications for teachers including the pros

and cons of several interventions. In the final chapter, I describe the limitations of my

review and make several recommendations for future research.

CHAPTER TWO: REVIEW OF THE LITERATURE

The literature pertaining to homework completion and academic accuracy is quite diverse. Abundantly clear, however, is that the issues of homework completion and accuracy have three major stakeholders: students, teachers and parents. Several authors provided a general summary on the factors attributed to academic achievement, others provided broad interventions not aimed at a particular group while others explored the topic of improving learning through homework by targeting specific stakeholders in this matter.

The Relationship Between Homework and Achievement

In a study investigating time spent on homework as a predictor of high school grades, Keith (1982) suggested that increased homework demands and stricter grading standards might improve both student achievement and confidence in schools. His research utilized the High School and Beyond data set (National Opinion Research Center, 1980), and was designed to determine the importance of time spent on homework on the grades of high school seniors. Keith chose this measurement over standardized achievement scores because he believed it was a more frequent measure of how students performed in school and was easy to interpret by students, teachers, and parents.

His data analysis revealed that, after ability, the greatest determinant of students' grades was the amount of time spent on homework. A promising component of this work revealed that this predictor held true for students of all ability levels. In

discussing the implications of this study, Keith pointed out that responsibility does not lie solely with the school and its teachers; it is shared by parents and students as well. Administrators can examine homework practices. Teachers can assign more homework and can lower the grades of those who do not complete it. Parents and students can make sure that assigned work is completed on a regular basis.

Cooper, Lindsay, Nye and Greathouse (1998) expanded upon Keith's previous research by investigating how attitudes and quantity of homework affected student achievement. Their review of dozens of articles on homework published between 1960 and 1989 provided mixed results. Some articles reported homework as having positive effects while others reported no effects or that the effects were complex. The review drew upon work performed by Cooper in 1989. He presented an extensive meta-analysis of research regarding the effects of homework, encompassing nearly 120 studies pertaining to what makes homework assignments successful. Two types of studies were utilized for Cooper's meta-analysis. The first type compared the achievement of students given homework against students given no homework. A random sample of 20 studies revealed that 14 favored students having homework while 6 favored the no-homework model.

The second type of study that was utilized focused on the possible correlation between the amounts of time spent on homework and student achievement. In 50 studies, 43 indicated a positive relationship between time spent on homework and students' achievement test scores and grades, while the other 7 indicated otherwise.

The analysis also revealed that, as students progress from elementary school to junior high to high school, the strength of this correlation increases.

The review also suggested that, due to evidence showing that students' attitudes play a significant role in determining their behavior, the connection between attitudes and achievement with regard to homework should be no different (Kraus,1995). The inconsistencies found in their studies led the researchers to hypothesize possible socially related cognitive reasons for the disparities. Teachers, parents and students all hold different perceptions about homework, which may affect how they gather and interpret information. They are also exposed to different aspects of the homework process that could influence how they view this issue. Students do not always see the benefits of homework and might not put forth their full effort. This can lead teachers to arrive at incorrect conclusions from the results of carelessly completed assignments. It is also suggested that responding teachers, parents, and students may desire to present themselves in a most favorable light might also affect the objectivity of their responses.

The analytic review concluded by examining the benefits of using homework at each grade level. The frequency of completed homework had little effect on student grades in the lower levels. It was shown to have long-term effects on student achievement, such as getting students accustomed to completing and returning homework and establishing routines of doing academic work outside of school hours. The review supported assigning homework in the earlier grades to promote the development of proper study habits. The authors also examined the roles that teachers

and parents have in this matter. It is the responsibility of the teacher to make sure assignments are developmentally appropriate for the students and are of appropriate length. According to Cooper et al., "Teachers should avoid lengthy homework assignments that lead to fatigue and the extinction of interest in the covered material" (p. 82). Attitudes held by parents may retard, or at least fail to promote, the students full involvement, perseverance or commitment to finishing their homework.

Dettmers, Trautwein, Lüdtke, Kunter and Baumert (2010) explored the associations of two indicators of homework quality (selection and challenge) with motivation, behavior and achievement The researchers characterized high quality homework as carefully selected and prepared, developmentally appropriate, interesting assignments that support in-school learning. Keith and Cool (1992) discovered that high-quality homework led to higher motivation. This was positively associated with an increase in homework completion, which in turn resulted in higher academic achievement. Students who viewed homework as demanding higher cognitive skills showed greater achievement than students in other classes. Dettmers et al. analyzed the data generated by surveys given to 3,483 ninth and tenth grade students. The survey utilized four point Likert-type scales and posed statements pertaining to homework behavior, motivation, and quality. There were four major relationships explored in this study: perceived homework quality at the student/class level and perceived homework challenge at the student/class level. The study's findings revealed that the major indicators of homework quality are homework selection and homework challenge. Homework selection ensures that the questions

teachers selected for an assignment are developmentally suitable for the class and that the quantity is appropriate. Homework challenge, as perceived by the students, pertains to the level of cognitive skills required to complete the assignment. Good and Brophy (as cited in Dettmers, et al., 2010, p. 479) state that homework assignments must be of an appropriate difficulty level for students to view them as valuable. Homework considered either too easy or too difficult may be perceived by students as a waste of time. The results of the study performed by Dettmers et al. showed a positive relationship between homework selection and homework motivation/behavior. The results also provided evidence of a positive association between high-quality assignments and achievement in mathematics at the class level. The researchers confirmed that homework challenge was negatively related to homework effort and expectancy beliefs. That is, the more difficult students perceive their homework to be, their expectations of doing well on their assignment decreases. Educators might be able to improve the efficiency of teaching by optimizing the homework they assign. This may be achieved by creating homework assignments that are individually appropriate, well crafted, and of proper length. Given the wide range of students found in an average classroom, this may prove difficult, albeit impossible. While personalized assignments may help improve students' motivation to complete homework and increase their achievement, 'individualized assignments make intensive demands on teachers' time and resources" (Dettmers, 2010, p. 479). One way around this concern would be to create tasks that could be solved using a number of methods, each with its own level of complexity. This allows for students to be

challenged but not overwhelmed by the assignment and can engage students of various ability levels.

Cooperative Learning Strategies and Interventions

A 1994 study performed by Olympia, Sheridan, Jenson and Andrews examined self-managed interventions at both student level and group level. The return rate of homework was first measure on an individual student basis to generate baseline data. Student groups were then formed and distinct roles were assigned (coach, scorekeeper, manager, and pinch hitter). Olympia et al. discovered that homework completion was higher when students were graded based on their cooperative groups. The strategies to improve homework completion, parent training, school-based management, and self-management substantiate the notion of the three stakeholders. Literature has commonly supported use of outside motivators (parents and teachers) to enact the behavior modification programs (Rademacher, Cowart, Sparks, & Chism, 1997; Hong, Milgram & Rowell, 2004). Olympia et al. (1994) discovered the drawbacks to this model to be loss of instructional time in order to manage behavior, challenges in observing and giving consistent consequences, and the association of negative contingencies with parents and teachers. To avoid these disadvantages, the study suggested behavioral techniques that assigned control of the consequences to students and the class as a whole.

Cooperative learning and self-management are the two approaches used in this intervention. In the cooperative learning model, tasks are divided amongst group

members to accomplish a common goal and rewards are contingent upon the completion of the goal by each group member. Olympia et al. (1994) found that self-management works well when used in conjunction with cooperative learning and requires students to monitor, evaluate, and reinforce their own work habits. The results of this intervention showed improvements in homework completion in the cooperative learning model. When students were allowed to select their own academic goals, they made greater improvements in homework completion than students given goals by their teacher. Students participating in the self-management intervention also reported gains in individual academic achievement (Olympia et al., 1994). Parents also reported that conflict with their children over homework had diminished. At the conclusion of this intervention study, parents, students, and teachers all responded favorably to the results of the study. The findings indicate that student participation in cooperative homework teams resulted in achievement increases in both completion and accuracy.

While homework completion and accuracy are issues with which many children struggle, special education students have an increasingly tough time completing assignments. Bryan and Burstein (2004) summarize the results of studies performed in both general and special education classrooms and describe various strategies that appear to increase homework completion– including reinforcements, graphing, cooperative study teams, homework planners, and parent involvement. According to Bryan and Burstein (2004), failure to complete homework has causes ranging from "lack of motivation and poor attitudes to cultural differences in

homework style" (p. 213). It was discovered that there was much variance in homework given by teachers. With only 35 percent of school districts having an established policy regarding homework, homework procedures are being based individual teacher's preferences rather than a research-based uniform policy (Bryan & Burstein, 2004). While 80 percent of teachers reported assigning homework on a regular basis, few teachers matched the tasks to students' skill set (Bryan & Burstein, 2004). Feedback and positive consequences for assignment performance was also lacking on the part of the teachers. This article was written to alert general education teachers, special education teachers, school administrators, and others who work with children to the magnitude of the problem, and to draw attention to evidence-based homework strategies. The research performed focused primarily on improving students' skills for completing assignments rather than improving teachers' skills in preparing the assignments. In a survey given prior to the study, Bryan and Burstein (2004) discovered that parents' attitudes towards homework were mixed, as some complained teachers gave too little and others complained teachers gave too much. Results showed that policies that carried severe consequences were more effective in increasing children's homework completion rates, but this measure of extrinsic motivation was never measured against strategies fostering student's intrinsic beliefs (Bryan & Burstein, 2004).

As research trends are promoting homework that is meaningful and individualized to the students as a method of increasing homework completion and accuracy, Kodippili and Senaratne explored the effectiveness of technology as a

replacement of traditional written homework (Bembenutty, 2010; Rademacher et al., 1997). The purpose of their study was to determine if online homework would lead to an improvement in academic performance measured against traditional, hand-graded homework. Technology is vital component in teaching and understanding mathematics as it is shown to enhance student learning (Kodippili & Senaratne, 2008).

Though the study was small in scale, Kodippili and Senaratne found that 70 percent of students who did their homework online had 'A, B, C' grades compared to 49 percent of students who did the traditional paper-based homework. The research showed that both teachers and students profited from the online homework program. Online assignments allowed teachers to spend more time with students and provided students immediate feedback to the accuracy of their homework, allowing for a more individualized learning experience. I feel that a failure of this study was identifying how students were grouped into online and traditional homework groups. It is plausible that the online homework students were more adept at using technology, which leads to higher-level mathematics skills prior to the class. There is reason to believe in the potential of technology to have a positive influence on learning and achievement of students.

The work of Bryan and Burstein (2004) confirmed previous research results showing a need for teachers to design homework assignments that are developmentally appropriate in terms of their difficulty and length. After examining the relationship between students' learning preferences and homework completion,

Bryan and Burstein (2004) argued that teachers should capitalize on individual learning styles in order to maximize homework efficiency. Homework intervention research shows that including students in the self-monitoring and data collection regarding their performance increases students' motivation to complete homework (Bryan & Burstein, 2004). While these strategies and methods are promising, teachers are cautious to implement new strategies. They are willing to test methods or materials if they consider them to be feasible, cost-effective and worthwhile, but reject any that are time-consuming or radically different from the established classroom structure or chosen curriculum (Little, Akin-Little, & Newman-Eig, 2010). Bryan and Burstein (2004) went on to provide a variety of methods and strategies used in classrooms and described the outcomes. Students were taught to graph their own homework completion data and set personal achievement goals. This self-monitoring led to improved rate of assignment completion and increased self-efficacy. Sorted into cooperative homework teams, student groups met each day for ten minutes and a designated team member checked the assignments for a group consensus. The position of checking homework rotated each day and the team scores were calculated each week. While students on the cooperative homework groups displayed significantly higher rates of homework completion and accuracy, these increases did not affect their overall standardized test scores.

Teachers may discover that developing real-life homework assignments and teaching children how homework should be properly completed to be less practical than the other strategies since these approaches require more time and effort (Bryan

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& Burstein, 2004). I believe a major issue is how to encourage teachers to adopt strategies proven to be effective, to judiciously self-examine their own practices, and to make changes based on their self-reflections. Furthermore, the creation of school-wide teams to collaboratively generate homework that is developmentally appropriate and methods for methodically evaluating the effect of homework assignments on students could lessen the concerns regarding the ease of implementing these changes. Teachers are likely to institute these effective practices when they have support and encouragement from their school's administration, chances to collaborate with other teachers, and a voice in establishing policy (Bryan & Burstein, 2004). Research that fosters positive academic behavior and that tests ways to effectively increase students' self-efficacy and intrinsic motivation is critical to improving their willingness to cooperate in and benefit from homework.

Much of the recent research stresses student choice as crucial to developing intrinsically motivated students (Bembenutty, 2010; Xu, 2005). A second strategy described by Rademacher et al. (1997) suggests the collaborative homework planning of a small group of students and their teacher. The authors discussed how inviting students to participate in the process of creating assignments leads to higher senses of ownership and understanding of the learning process and builds intrinsic motivation in their own education. In the creation of 'Assignment Expert Teams', a group students met with their teacher during her planning time over a nine week grading period. They met once or twice every three weeks and worked together to develop homework assignments for the entire class. As a result, the average number of

uncompleted assignments dropped from 22 before the project to nine at the end of the project. At the conclusion of the study, the teacher found that finding the time to plan with the team was problematic, but agreed that it was a strategy she could foresee herself utilizing periodically throughout the year. I feel the strategies and procedure talked about in this study can assist teachers in their endeavor to meet the needs of a progressively diverse student population. It is expected that learning and motivation will improve for all the students in the class when teachers give high-quality homework with student choices and present ways to incorporate students in the creation and planning of some of their work.

While studies done from a researcher's perspective have offered many proven strategies for teachers to implement to increase homework completion and accuracy, Bryan and Sullivan-Burstein (1998) examined a series of interventions selected by teachers that were shown to improve student achievement. The primary goal of this intervention was to increase the rate of homework completion. Parents struggle in getting children to complete their assignments while teachers rely on homework as an avenue of communication with parents and as a way for students to practice and reinforce concepts introduced in class. Bryan and Sulliven-Burstein (1998) discuss a variety of strategies and methods used in previous studies that were found to be useful in improving academic achievement at a variety of levels. Take home science kits were set up for students to perform science experiments with parents and family members. All stakeholders involved viewed the kits as effective, but the results were strongest with younger students. Reading programs that utilized paired reading

yielded increases in both reading rates and comprehension. In this intervention, parents and peers proved to be more effective paired readers than teachers. Cooperative homework teams were established to foster growth in mathematics skills. Group contingencies were put into place and the results showed increases in completion rates and accuracy, though it appeared to be less effective in sixth and seventh grades than for eighth grade. Other models include "parent tutoring, cover, copy and compare memorization strategies, flash card tutoring, home-to-school notes, and self management techniques" (Bryan & Sullivan-Burstein, 1998, p. 264). Results suggest that a variety of strategies can be used effectively to increase homework competition rates, reading vocabulary and comprehension, and science and math achievement in elementary and middle school students in both general and special education classrooms. These investigations focused on increasing content knowledge as well as developing organizational and self-management skills.

Quality Meaningful Assignments/Teacher Responsibility

Despite the importance of written feedback on students' homework, the promise of an individualized response from a teacher is usually not enough to motivate students to complete their assignments. Failing to do so is a key contributing factor to the poor educational performance of students and often among the decisive factors in referring students for special education programs (Theodore et al., 2009). As schools moved away from grouping students in tracks according to ability and embraced the inclusive education model, classes became increasingly diverse with

regard to student ability, behavior and performance (Rademacher et al., 1997).
Designing appropriate homework assignments to correspond to the unique
educational needs has become progressively more difficult. Rademacher et al. (1997)
address this issue in their study "Planning High-Quality Assignments with Diverse
Learners". Another contributing factor, according to educators, is the growing
numbers of students who simply show no motivation to do the work assigned to them,
thus contributing to their poor academic performance (Bryan & Sullivan-Burstein,
1998).

Rademacher et al. (1997) offer suggestions for increasing homework quality
in order to improve students' involvement in the educational process. The first
suggested teacher improvement is learning how to design homework assignments that
students find acceptable and motivating. Several aspects of quality homework are
discussed. Each homework assignment should be planned with a purpose so that
students understand how completing the assignment will benefit them. Homework
questions should be personally relevant to the student population and take into
account the unique characteristics and interests of targeted students. Assignments
should be varied in format and organization. While assigning a worksheet everyday
establishes routines and expectations among students, it fails to provide opportunities
for students to demonstrate their knowledge and skills in different ways. If students
perceive homework as too easy or too difficult, they will view it as boring or
frustrating and disregard completing it (Rademacher et al., 1997). Concise and
complete directions that detail how each part of the homework is to be completed is

needed to help students understand the necessary resources, grading criteria and date of completion. Assignments should provide students an opportunity and an output for creative expression and notify students of areas of difficulty that might confuse or hinder their successful completion of the work (Dettmers et al., 2010). I feel that students should be given a certain degree of choice through the assignment completion process so they have a sense of ownership and control over their own learning, which builds intrinsic values in students. While not likely to contain all the elements of quality homework, including as many of these factors as possible improves the changes that the assignment will meet the needs and interests of an academically distinct student population.

The research performed by Rademacher et al. (1997) included a template called the Quality Assignment Planning Worksheet. This template can be used to guide a teacher's design of assignments to ensure students' learning styles are taken into account and that individual academic needs are met. The worksheet can be used to plan a single major assignment or used as a model for a type of assignment that will be utilized throughout the curriculum. The four steps involved in applying this strategy are modeled by the acronym PLAN (plan, link, arrange, note). Initially, teachers plan the purpose of the assignment by noting what learning students will need to demonstrate and, how that learning will be demonstrated and why. The assignment is linked to student needs and interests. Directions are arranged in a clear manner that all students can understand. Teachers take note of the details and evaluation date of the assignment.

To be willing to implement new strategies and methods into the pre-established organization in their classrooms, teachers must view these modifications as feasible, cost-effective and beneficial to student learning (Bryan & Sullivan-Burstein, 1998). Educators are reluctant to implement new strategies that are awkward to put into practice or take time away from working with students (Fearrington, McCallum, & Skinner, 2011). Bryan and Burstein (2004) have shown that teachers are most willing to make modifications to their teaching strategies when they are directly involved in the process. The authors also discovered that teachers feel a greater sense of investment and dedication to a newly implemented strategy when they are less likely to abandon the process prematurely. Teachers have a hard time with defining homework and its objective, differentiating between skill practice and busy work, and determining what was reasonable and equitable in adapting homework to meet the unique needs to individual children (Bryan & Sullivan-Burstein, 1998). Teachers are concerned with designing homework that guides students to make the connection between real-life applications and what was learned in school (Bryan & Burstein, 2004). They understand the need to individualize assignments but are worried about time constraints and required efforts of implementing an intensive homework renovation. Since interventions that involve parents are shown to improve homework completion and performance, teachers hope that homework will provide a means for improved school-to-home communication and increased parental involvement with students' homework.

A major exploration of the roles that teachers plan in designing homework was performed by Epstein and Van Voorhis (2001). While social research has focused on homework for quite some time, relatively few investigations have looked into the teacher's role in designing and assigning homework (Bryan & Sullivan-Burstein, 1998; Dettmers et al., 2010). The process of homework begins with the teacher, who chooses the topic and material covered in each assignment to be given. Doing so requires teachers to take into consideration the purposes, format, and other aspects of homework that will engage students and help support their academic achievement. Homework assignments are not only indicative of teachers' content knowledge, but also their understanding of the skills, abilities, and needs of their students including influencing factors of their family situations (Trautwein & Ludtke, 2009). Epstein and Van Voorhis (2001) describe ten broad purposes of homework: practice, preparation, participation, personal development, parent-child relations, parent-teacher communication, peer interaction, policy, public relations, and punishment.

Practice pertains to increasing speed and mastery of skills and preparing for tests and quizzes. Preparation refers to laying foundation for upcoming lessons in class to prepare and stimulate students' thinking in advance. Participation is intended to increase student involvement and engagement in their studies and acquisition of knowledge. Personal development describes establishing and developing students' self-efficacy, responsibility, time management and self-motivation. This helps build up feelings of intrinsic motivation that can help students in other aspects of their lives

outside of the classroom. Homework helps parent-child relations in that it can provide avenues for positive communication and decrease conflict often found between students and their parents. Homework can be intentionally designed by teachers to inform parents and families about what their children are currently working on in class. Some assignments are intended to be collaborative amongst students and their peers. This encourages students to work together, motivate and learn from each other. Some teachers make homework assignments to meet school or district policies on required amounts of homework. Assignments can also be utilized to demonstrate the rigors of the curriculum to the public. Occasionally, teachers use homework in a punitive manner to correct student behavior. These described purposes of homework are not mutually exclusive; assignments may be developed to serve multiple functions. Homework intended to serve these purposes should help improve student learning and achievement, foster partnerships amongst home-school-community members and improve the practices of both teachers and administrators.

The research of Miller and Kelley (1991) shows that the completion of homework is positively correlated with report card grades and achievement-test scores. Moreover, they found that students' skill levels will increase as they spend more time completing their assignments. A promising aspect of research performed by Epstein and Van Voorhis (2001) indicates that high school students who regularly completed their assignments earned better grades than other students, regardless of their initial levels of ability. The authors support this with evidence showing that low-ability students who completed ten hours of homework or more per week earned

grades just as good as high-ability students who did no homework. Epstein and Van

Voorhis (2001) speculated about reasons for the variation in high school students'

homework habits and results. First, some low-ability students in high school might

not complete assignments if they find it frustrating, that is does not contribute

to their learning, or if they feel pressured by peers to not finish. The authors found

that lower-ability students tend to finish homework quickly, haphazardly and with

less accuracy than average-ability or honors students do, or they do not do their

homework at all. Second, the quality and quantity of homework assigned by teachers

is sometimes related to their perceptions of the ability of the class (Epstein & Van

Voorhis, 2001). Students in high-ability classes are often given assignments that are

found more interesting, require higher cognitive thinking, and that students perceive

as appropriate. Lower-ability students are met with lower expectations and given

work that is watered-down and requires lower cognitive processes. Third, as students

progress from younger grades into junior and high schools, parents are less faithful in

monitoring their children's homework. Lower-ability students who lack self-efficacy

and self-management skills no longer feel the amount of pressure they used to in

elementary school, and their homework completion suffers. This can also be due to

parents who find the level of homework assigned too difficult for them. I feel that it is

a combination of these factors that contribute to high school students' homework

habits and the poor academic results of their efforts. The implications suggest

teachers should focus their efforts on creating assignments that encourage lower-

ability students to complete their homework.

Most teachers need fresh approaches, organized strategies, and specific methods to increase parental involvement at home. I feel that it is the responsibility of the teacher to design high-quality homework that is engaging to students so that students at all grade levels and ability levels take the time necessary to complete their assignments. Epstein and Van Voorhis (2001) found that interactive homework promotes open dialogue between students and family members, friends, peers, or other community members regarding what they are currently learning. They developed Teachers Involve Parents in Schoolwork (TIPS) as a design for interactive homework and described its effects and implications in language arts, math and science. The general design of the TIPS program entails students demonstrating math skills learned in school with others, conducting science experiments, interviewing family members and making other connections between school work and real-life applications. TIPS language arts guided children to read aloud and talk with family members about their topic, gather feedback on rough drafts, and conduct surveys in their family about similar situations related to their own. This led to increased homework completion and report card grades in language arts. Involved stakeholders were pleased with the intervention as 80 percent of students enjoyed working with their parents and 100 percent of surveyed families expressed appreciation of the insight into their children's' learning (Epstein & Van Voorhis, 2001). As parents continued to work with the TIPS language arts program, their degree of satisfaction increased. This intervention proved to be successful with students of all ability levels.

In the TIPS math design, students demonstrated to parents how the teacher taught them math skills in class, showed how they practice their math skills, and conversed with family members about real-world applications of math. Parents communicated with teachers regarding the intervention with a home-to-school card and were shown to appreciate the student-guided interactions about math. As both parents and students expressed an increase in their discussions about math, students' self-efficacy beliefs increased as they reported feeling more prepared and successful in class. It was found that students who had participated in the TIPS math intervention reported the same amount of increase in math achievement as those who had not participated in the intervention, which was credited to having the same effective teacher (Epstein & Van Voorhis, 2001). The TIPS science intervention was designed to help students go over the main points of what they were learning, conduct experiments with family members as assistants, and provide opportunities to discuss their findings with parents. This also utilized a home-to-school communication card. TIPS science students showed increased achievement in science class, amount of homework completed, and science report card grades. The results of this study revealed that family socioeconomic status had no effect on parental involvement in the TIPS program. In all three TIPS studies, students and parents both agreed that the program helped foster dialogue and understanding regarding the concept being learned by the students in school and parents expressed overwhelming satisfaction with the program. This study also raises questions regarding the roles that teachers have in designing homework as a learning tool, how well they present assignments,

and follow up with discussions, feedback, and assessment questions. I believe the topic of homework should be addressed in pre-service, in-service, and professional development education trainings for both teachers and administrators. I feel it is essential that all involved stakeholders understand homework is not merely a task that students do, but it is also an integral part of teachers' professional responsibilities.

Importance of Feedback

Previous studies investigating the issues surrounding homework problems have been based primarily on the perspectives of parents and teachers (Bryan, & Sullivan-Burstein, 1998; Epstein, & Van Voorhis, 2001; Sui-Chu & Williams, 1996). In an effort to gather data from students' perspectives, Bryan and Nelson (1994) analyzed feedback from students in elementary and junior high schools. Their study examined students in regular education classrooms, integrated students who receive resource room support, and students in self-contained special education classrooms.

They discovered that, when compared to elementary students, junior high students received less feedback on their homework. Due in part to the increase in students per teacher at the junior high level in comparison to the elementary school level, this absence of feedback impedes the educational process by failing to provide frequent, individualized information to the students regarding their homework achievement (Elawar & Corno, 1985). Positive attitudes and motivation towards homework in junior high begin to diminish as students reported getting more homework, liking it less, and finding it increasingly tedious and uninteresting.

While students have often been the primary target of studies aimed to increase

homework completion and accuracy, they are not the only stakeholders involved in

this pressing matter. Another significant portion of research focuses on the roles

played by teachers and how their practices involving homework affect student

achievement. One of the earlier studies performed by Elawar and Corno (1985)

examined how teachers' written feedback on student homework can improve student

learning. Since homework is a major component of a child's education and something

they will continue to face throughout their schooling, it is important to study the

effects homework has on student responses in school. Students are unique and have

distinctive reactions to homework. Teachers are also unique in the fact that they vary

in their homework feedback and grading systems. All things considered, it is

important to determine the types of homework and teacher uses of homework that are

most advantageous for a diverse student population (Rademacher, 1997). Elawar and

Corno (1985) argue that homework is most likely to support learning when teachers

provide written feedback. The authors also state that written feedback makes student

mistakes salient in a constructive manner. By including feedback specific to the

mistakes a student made, it focuses their concern to the material that was not fully

mastered and directs student attention away from reexamining the work on which

they did well. This study found that, while valuable on its own, positive written

feedback was noticeably more effective when supplemented with specific feedback

on the mistakes that were made. It provided teachers another avenue to have

individualized contact with students regarding the quality of their work and provided

an opportunity for students to learn from their mistakes. It is reasonable that this type

of intervention could be customized to fit into regular teacher professional

development and in-service training programs. This simple intervention proved to

have positive effects on student achievement at all ability levels and closed the gender

gap noticed from baseline testing results (Elawar & Corno, 1985). This suggests that

teachers can increase learning opportunities for students by providing helpful

feedback on their homework. Elawar anad Corno (1985) also offer evidence of the

value of constructive feedback as a way for teachers to gain individual insight to

mistakes students are making. Teachers can use this information to better plan their

lessons and guide instruction to close specific gaps in learning at both the student

level as well as the class level. The training provided to teachers was effective in

changing teachers' position on written feedback (Elawar & Corno, 1985). It was

relatively short, inexpensive, and needed no special materials. It merely required

providing teachers with a simple algorithm for analyzing the feedback they provided

students on homework assignments. While this study focused on the effect of written

feedback on mathematical homework assignments, this strategy should prove to be

effective in other subject matters as well.

Self-Regulation and Intrinsic Motivation

As students grow older, the ability to work independently becomes

imperative. As described by Zimmerman (2002), this requires strong self-regulation

skills. Noting that many children lack these abilities, researchers have sought to

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develop these skills through strategies such as "goal setting, time management, learning strategies, self-evaluation, self-attributions, seeking help or information, and important self-motivational beliefs, such as self-efficacy and intrinsic task interest" (p. 64). Zimmerman discusses students' self-regulation as "a means to compensate for their individual differences in learning, defines the essential qualities of academic self-regulation, and describes the structure and function of self-regulatory processes" (p. 64).

According to Zimmerman (2002), few teachers currently prepare students to be self-regulated learners, despite studies detailing the positive relationship between self-regulatory processes and academic achievement. He supports his claim by stating that "self-regulation is not a mental ability or an academic performance skill; rather it is the self-directive process by which learners transform their mental abilities into academic skills" (Zimmerman, 2002, p. 66). Self-regulation of learning is not a single individual trait that each student either has or lacks. It involves the careful use of specific processes that must be individually personalized to each assignment. The component skills include: (a) establishing specific goals for oneself, (b) implementing strategies for achieving the goals, (c) scrutinizing one's performance selectively for indications of progress, (d) rearranging one's physical and social environment to make it compatible with one's goals, (e) managing one's time use efficiently, (f) self-assessing one's methods, (g) determining the cause of the results, and (h) modifying methods for future implementation (Zimmerman, 2002). Although knowledge of students' strengths and limitations in learning is important to teachers, their goal

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should be to empower children to become self-aware of these differences

(Zimmerman, 2002). Studies have shown a positive relationship between quality,

individualized homework and success (Bryan, & Sullivan-Burstein, 1998; Dettmers et

al., 2010). However, this personalized attention could undermine the most important

facet of this learning – students developing a capacity to regulate their own learning.

Self-regulation does not pertain to mental aptitude or a capacity of academic

performance; rather it is the intrinsically directed directive process by which students

convert their mental abilities into academic skills. When this occurs, motivation to

acquire knowledge becomes proactive on the part of the students rather than reactive

as a response to instruction. This also pertains to life outside of the classroom because

self-regulation aids in developing life-long learning skills (Zimmerman, 2002).

Zimmerman described the self-regulatory process as having three distinct

phases, each with its own structure and function. The forethought phase involves the

teacher and student setting agreed upon goals and requires self-motivation and self-

efficacy beliefs regarding the ability to complete the upcoming task. The performance

phase is characterized by students' self-control and self-observation. This contributes

to staying focused on the task, monitoring one's progress and being flexible to make

changes to ensure goals are met. Self-reflection is the process of looking at one's

beliefs or motives and it entails both self-judgment and self-reaction, taking place

only once the task is completed. Given the opportunity to evaluate the success of

decisions made during the performance phase, it grants insight into effectiveness of

the decisions and whether the choices made are appropriate for future implementation.

In a paper entitled "Purposes for Doing Homework Reported by Middle and High School Students", Xu (2005), explored perceived reasons for doing homework from the students' perspective. The participants in this study were 920 students in three rural public schools in a southern state. A survey was administered in English classes in grades five through twelve regarding their attitudes towards homework. The 30-minute survey contained eight questions that were of particular interest to Xu. Each of these statements was accompanied by a four-point Likert-type scale on which students chose a response from (1) strongly agree, (2) agree, (3) disagree, or (4) strongly disagree.

Xu argues that the purposes of homework were developed by teachers and that students' perspectives on the purposes of homework might not align with the aforementioned rationale. Homework views held by teachers and parents "exert important but more distal influences on student homework behavior than do children's own views" (Xu, 2005, p. 46). His research first compared purposes of homework as observed by students, parents, and teachers. He continued to observe the positions and views of teachers and parents on students' homework attitudes and behavior. While teachers, students, and parents agree that homework helps to review, practice and highlight what was learned in class, students did not share the same opinion with teachers and parents that homework encourages the development of responsibility and study skills. His results revealed that homework purposes could be

classified as either intrinsic or extrinsic. The purposes of doing homework classified as intrinsic involved developing a sense of responsibility, learning to work independently, learning good study skills, developing good discipline and reinforcing school learning. The students recognized as intrinsically motivated were more likely to complete their homework and achieve higher grades. The homework purposes categorized as extrinsic dealt with gaining approval from their teacher, family and/or peer. These reasons were not mutually exclusive, as students reported completing their homework to reinforce school learning and seek approval from adults. Although studies suggest that parents can influence students' attitudes and behavior related to homework purposes (Eilam, 2001; Xu, 2005) this study was the first to directly correlate family homework involvement and children's perceived purposes for doing homework.

Furthering the research on intrinsic motivation and student achievement, Bembenutty (2010) researched how students' motivational beliefs, the use of self-regulated learning strategies and delay of gratification play a role in predicting homework completion and academic performance. In this study, Bembenutty surveyed fifty-eight college students enrolled in an entry-level math course at a four-year college in New York. Forty-four of the students felt comfortable speaking English while fourteen stated they preferred speaking in their native languages. The average student age was 18 and a majority of the students were African-American or Hispanic. Students were given a 10-item scale to measure delay of gratification with regard to preparation for their math midterm. Each student rated which option they

preferred, an attractive, immediately available option versus a delayed alternative. Each statement was answered on a four point Likert-type scale: Definitely choose A, Probably choose A, Probably choose B, Definitely choose B (Bembenutty, p. 6). This study is significant because previous studies had focused on variables that could not be controlled by the student, such as socioeconomic status, gender, and race (Cooper, Robinson, & Patall, 2006). Self-regulatory skills involve how students select, self-monitor and self-evaluate their homework performance. Bembenutty's study focused on educationally-disadvantaged students. They are characterized as lacking parental supervision and monitoring, having low self-confidence and poor environmental structure, setting impractical goals, and using unrealistic strategies. While many educationally-disadvantaged students lacking the self-regulation skills necessary for academic success, studies have shown that these skills can be taught. The study utilizes Zimmerman's cyclic self-regulation model, comprised of three major components: self-efficacy, intrinsic interest and outcome expectancy. As students completed a certain task, they reviewed how their final performance was related to their degree of self-efficacy and how invested they were in the process. This provided an opportunity to adapt and modify their cycle before continuing with their homework. Bembenutty found that students' self-efficacy and their perceptions of responsibility for academic achievement was associated with their resulting grade point average.

Bembenutty found that students' willingness to delay gratification of things not pertaining to academics was found to be associated with the amount of homework

completed and their overall academic achievement. Conversely, students who had low degree of self-efficacy were less likely to delay immediate gratification and were easily sidetracked from their work. Bembenutty concluded that students with a high level of self-regulation are more willing to delay gratification and continue with their studies, ignoring the temptations and long-term waiting periods. They carefully plan their actions, establish specific academic goals and anticipate possible problems ahead.

In contrast, learners who have poor self-regulatory skills have low self-efficacy, partake in pointless self-evaluations and self-monitoring of their academic progress and make decisions detrimental to their educational goals. Since intrinsically-driven students were more likely to be willing to delay gratification, which is positively associated with student's final grades, it is safe to assume that students who are motivated by internal factors do better academically. Students who reported low self-efficacy beliefs scored significantly lower than their peers did on both the midterm and final exams. The findings of this study reveal that using self-regulation skills to increase homework completion is an important approach that all involved stakeholders should consider when looking to improve the learning experience of students.

Self-Management and Self-Monitoring

Interventions pertaining to self-regulation are designed to teach students to keep their behavior under control (Axelrod, Zhe, Haugen & Klein, 2009;

Bembenutty, 2010). One type of self-regulation strategy is self-monitoring, which refers to observing and recording one's own behavior. Axelrod et al. (2009) found that self-monitoring improved on-task behavior and decrease disruptive behavior in the classroom. They authors continued to how the results show that the self-monitoring interventions produced increased on-task academic behavior and were easier to implement than previous anticipated. Their research found that increased time on task during homework led to an increase in assignment completion. The results also indicate that self-management interventions can be used to accomplish quick and dramatic increases in on-task behavior for all students (Axelrod et al., 2009). Teachers, students and parents all found the intervention to yield positive results and appreciated the ease in which the intervention was implemented.

A technique called Solution-Focused Brief Counseling (SFBC) was introduced by Fearrington et al. (2011). SFBC is an efficient and direct method to therapy that focuses on identifying the problem and its possible solutions. Fearrington et al. (2011) found that a majority of students who are recommended for counseling services at school are also suffering academic problems. These are defined as deficits in skills and/or performance. Students showing deficits in performance have learned the necessary skills to be successful yet do not complete their academic tasks. A number of useful interventions that target motivational issues in students with performance deficits have been utilized to remediate past failure (Fearrington et al., 2011).

This intervention is most likely to be utilized in school settings that require few resources, including teacher and student time and is often used in conjunction with Response to Intervention (RTI). To prevent academic deficiencies from becoming more pronounced, the implementation of SFBC should have a prompt and meaningful effect on student behavior in school. SFBC concentrates on student skills and solutions instead of deficits and problems. Fearrington et al. (2011) argue that this approach is well-suited for students who have the necessary academic skills to be successful but lack the necessary motivation, confidence and perseverance. The authors go on to detail the five steps in the SFBC intervention. The student is first asked to assess the severity of their problem. The counselor then asks the student the 'miracle question', "If this problem was solved, how would you envision your life to be?" This leads the student to look past their current problem and see a positive outcome in the end. The therapist proceeds to use cheerleading and positive blame while talking about the problem and possible solutions. Cheerleading gives verbal support and praises attempts the student has made. The concept of positive blame helps provide the student with a feeling of achievement and increased self-confidence that they can address their problems. Students then work to identify possible obstacles that might prevent them from solving their problem. The student is finally given a written note containing at least three positive compliments connected to the task necessary to accomplish in order to achieve their intended solution. Upon completion of the intervention, students showed an increase in homework completion with no

negative effects on students who did not undergo the intervention. SFBC has also been utilized to target social, emotional and interpersonal problems among students.

A smaller-scale intervention was performed by Hall and Zentall (2000) that examined the effects that a learning station had on the completion and accuracy of math homework of junior high students with chronic assignment problems. The learning station was a three-sided freestanding panel with components pertaining to stimulation and self-attention. The stimulation component included color, music, activity breaks, and student choice while the self-attention component had a mirror and addressed self-monitoring. Hall and Zentall (2000) suggested that certain homework assignments are not completed because, from the children's perspective, they are too tedious or overly complicated. They authors continue to state that self-control skills are crucial in organizing and maintaining attention to independent homework, but these skills are still generally developing in children at the junior high level. Hall and Zentall (2000) base their intervention on the optimal stimulation theory that states "all living organisms have a physiological need for stimulation, which they can achieve through changing their activity and though their cognitive and sensory capabilities." (p. 124). Students are more probable to seek supplementary stimulation by talking, moving, touching things, responding or yelling without thinking, and looking around their environments during a restricted activity and performance of repetitive, complicated or drawn-out tasks. Hall and Zentall (2000) discovered that, to the degree that students' attention is directed outward to their surroundings, their attention to themselves is decreased. The mirror on the learning

station helped students self-regulate their behavior and even normalized the behavior of general education students when compared to students diagnosed as hyperactive/inattentive (Hall & Zentall, 2000). Because of the intervention, the rate of homework completion and homework accuracy increased. Overall, these results suggest that this combination of components, including stimulation and self-attention, can increase the completion and accuracy of homework for students at the junior-high level.

Student Preferences

Hong, Milgram, and Rowell explore the role that student preferences have on motivation and completion of homework (2004). Students are infrequently given the opportunity to choose when, where and with whom they will study. They generally have little or no choice about the type of projects they are asked to do or the procedures to be used to complete them. Most parents believe that there are ideal conditions that provide the best environment conducive for homework and this ideal environment is the same for every child (Hong et al., 2004). They are surprised to discover a variety of learning environments in which students thrive doing homework. Teachers are also unfamiliar with these differences in student's learning preferences. Hong et al. (2004) argue that teachers often lack the diagnostic ability to identify individual these preferences among students, and usually have not learned how to match teaching strategies and/or homework assignments to those preferences. I believe it is a challenge for all stakeholders involved to work together, share information about students' homework motivation and preferences, and utilize

strategies to be used at both school and home. This collaboration can facilitate discovering a better match between what the child personal preferences and the optimal learning environment for him/her.

To better comprehend individualized student preferences, Hong et al. (2004) developed the Homework Motivation and Preference Model (HMPM). The core belief of this model is that each learner has an individualized homework preference pattern consisting of a unique combination of motivations and preferences that influence their academic behavior and homework completion. The authors divided the conceptual components of the HMPM into two categories- motivation and preference. Motivation is best described by analyzing the source and strength of the student's desire to finish their work, and preference pertains to the organizational structure, environment, learning style and interpersonal nature of a student's ideal learning surroundings. Their study revealed a negative association between achievement and the gap between preferred and actual learning conditions. Smaller gaps were related to higher homework achievement, whether perceived by student or by teacher. Hong et al. (2004) felt that students that are performing at the desired level school should be given flexibility with their learning preferences. The results of this study should provide encouragement for parents to improve their knowledge of their child's homework preferences and to facilitate those preferences by generating similar conditions at home. The authors found that increased student achievement and attitude toward academic assignments was a consequence of permitting the match of student home learning preferences with environmental cues and supports . To better

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maximize the findings of this research, Hong et al. (2004) recommend that both teacher-training and parent-training take place so that all stakeholders are aware of the possible benefits.

Use of Homework

Homework assignments are an unavoidable method of connecting home and school. According to Epstein and Van Voorhis (2001), parents indicate the most important reason they want to help their children is to ensure they do better in school, but they admit they are unsure how to help. The authors provide four proven ways parents can be involved in students' homework are by valuing, monitoring, assisting and doing homework. This may be done by parents telling their children that "that they value homework as an important task for increasing learning; monitor the completion of homework; and show that they will assist their children with their work" (Epstein & Van Voorhis, 2001, p. 185). This study showed four major connections between levels of involvement by parents and the roles and actions of teachers. Firstly, the family educational background is a major indicator of parental involvement levels. While just about all parents understand the need to monitor their children's homework and convey their views on the importance of homework, parents with higher levels of formal education are more likely to act upon their values. Secondly, the grade level of students also influences the amount of help a student may receive from their parents. As children grow older, many parents feel that students should be responsible and self-motivated to complete their homework.

Others also find the increasingly challenging assignments to be intimidating and confusing. Thirdly, parental involvement also helps to form and develop teachers' attitudes. Educators report increased positive feelings about teaching and their schools when there are higher levels of parental involvement. Those who communicate regularly with parents are likely to increase their expectations of all parents and continue to design homework to include the participation of parents and families. Finally, studies regarding school programs geared towards parents have shown an improvement in parental involvement when schools and teachers implement specific practices agreeable with parents. They want to be involved, but admit they need support and help to know how.

Parental Involvement

Few studies have exclusively examined the relationship between parents and teachers (Bryan & Sullivan-Burstein, 1998; Sui-Chu & Williams, 1996). Further investigation of interventions and strategies involving parents is an area of research that deserves more attention. While many advocates for homework are quick to point out the relationship between homework and achievement, there remains opposition who believe that excessive homework hinders students' ability to spend time participating in family and community activities. (Bryan & Nelson, 1994). This diminished leisure time subsequently has an adverse affect on the quality of family life (Miller & Kelly, 1991). Baumgartner, Bryan, Donahue, & Nelson, (1993) analyzed over 500 surveys from parents regarding their attitudes towards homework,

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testing and grading policies. Parents complained about the amount of homework

being given as well as the difficulty of the assignments. Some were displeased with

the number of extensive projects being given over the weekend. One parent said

"Homework has dominated and ruined our lives for the past eight years"

(Baumgartner et al., 1993, p. 182)

Bryan and Nelson (1994) also showed that parental involvement at the junior

high level began to wane. They found that parents recognize the significance of the

transition from elementary to junior high, and their expectations for self-determined

behavior and responsibility increases. Homework at this level is viewed by parents

and teachers as not only fostering academic achievement but also teaching self-

reliance and accountability (Bryan & Nelson, 1994). The blame for the decrease in

parental involvement appears to lie solely on the parents. The authors noted that

students at the junior high level may not want their parents help and may prefer to

work independently, but the authors provide no suggestions or recommendations for

changing this.

In their research review, Miller and Kelley (1991) explored areas pertaining to

increasing assignment completion and accuracy and decreasing the conflict between

children and parents that is often associated with homework. Proponents of

homework counter with the belief that homework activities fosters a stronger home-

to-school connection while promoting independent study habits in students

(McDermott, 1984; Miller & Kelley, 1991). After controlling results to account for

variables such as gender, race, and family background, the study reported that time

spent on homework is an important predictor of student achievement (Miller &
Kelley, 1991). These findings have shown to hold true for all students, regardless of
ability level. Based on this notion, Miller and Kelley (1991) suggest that increasing
the amounts of homework could be used not only to target the academic improvement
of low achieving students, but could prove to be a useful implementation at the class
level, the school level, or even at a district level. Miller and Kelley (1991) also point
out research that continues to suggest the positive relationship between academic
achievement and time spent focused on instructional tasks. They derive that "any
procedure that increases on-task or engaged time will enhance learning" (Miller &
Kelley, 1991, p. 176).

Since homework is an activity that gives students more time focused on
academic tasks, it should increase time students are engaged in learning and
consequently improve academic achievement. Some researchers view parental
involvement as a way to support and encourage student achievement, while others
view it as a hindrance for student growth (Bryan & Nelson, 1994; Epstein & Van
Voorhis, 2001). The Correlational research performed by Miller and Kelly (1991)
indicates that parental involvement is negatively associated with students' academic
success. They continued to say that ,while parental involvement is positively
associated with homework completion, too much help from parents led to lower
achievement-test scores. Children receiving more parent help with homework may
become overly reliant and fail to develop self-management skills, a feeling self-
reliance or an intrinsic motivation to learn (Miller & Kelley 1991). Other studies have

contradicted these findings and suggest that parental help is especially important with low-achieving students (Bryan, Burstein, & Bryan 2001; Bryan & Burstein, 2004). In these situations, parental involvement serves remedial purposes and gives students additional opportunities to catch up.

Interventions that target improving both completion and accuracy of homework are socially valid due to the proven relationship between homework and academic achievement. One minor study performed dealt with a ten-year old girl who failed to complete her daily required amount of reading. For each minute less than 30 minutes she was supposed to spend reading, she would have to go to bed one minute earlier. This simple intervention increased her mean reading time from 11.5 minutes per day to 30 minutes per day. It is the belief that, despite the argument that this response was extrinsically motivated, quality reading habits will form and the child will soon forget about the bed-time stipulation. An interesting aspect of this intervention is that the child's mother acted as the primary observer and experimenter, a method that is logical and affordable. Two studies specifically looked into interventions targeted at easing the conflict between parents and children over homework and provided a concise behavioral training program for parents of junior high students identified as deficient in mathematics skills (Miller & Kelley, 1991; Olympia et al., 1994). The primary focus of the intervention performed by Olympia et al. was increasing math homework completion and also provided extra tutoring to the students from their parents. The experimental group reported significant increases in attitudes towards academic work at home, thus decreasing the level of parent-student

conflict. Their overall academic attitude and motivation was greater than the no-treatment control group. At the conclusion of the intervention, the achievement of the experimental group had improved by an average of eight percent (Olympia et al., 1994).

Studies generally have shown that parent involvement in the homework process is positive, especially when parents provide accurate, positive feedback and interact in a supporting manner during homework sessions (Trautwein & Ludtke, 2009). Given the fact that a portion of teachers struggle with designing homework and that parental involvement can positively influence the amount of time children spent on the assignments, the conjoint efforts of educators and parents to increase students' academic behaviors with regard to homework is highly recommended. Miller and Kelley (1991) also suggest that parents and children work together to divide homework into small, workable groups. They authors also suggest small extrinsic rewards be used to motivate students. Through this process, students may be able to reflect and reinforce on their attitudes and behaviors about homework, a first step in developing self-management skills (Miller & Kelley 1991). They conclude that since homework is an activity that gives students more time focused on academic tasks, it should increase time students are engaged in learning and consequently improve academic achievement. While ideal in theory, Miller and Kelley (1991) failed to ensure that the homework itself was of high-quality and developmentally appropriate before making this generalization.

While the relationship between time spent on-task has been positively correlated to academic achievement, some students lack the necessary self-management to be successful. Axelrod et al. (2009) cite on-task behavior as one of the main reasons for students' failure to finish homework assignments and even more common amongst students with attention and behavioral problems. The authors examined this problem and identified self-monitoring and self-management strategies of on-task behavior as useful tools for increasing the homework completion rates of students facing difficulty staying focused. Studies aimed at improving homework completion frequently involve "parental involvement strategies including parental monitoring of homework, consultation and training, goal setting combined with contingency contracting and incentive systems" (Axelrod et al., 2009, p. 326). Although initial examination of parent-facilitated homework interventions suggests potential, Axelrod et al. warn that the success of interventions that rely heavily on parental involvement is directly related to extent to which parents are actually involved. Difficult or time-sensitive interventions can be met with hesitance by parents who are disinterested or busy.

CHAPTER THREE: IMPLICATIONS

Homework is a powerful tool that can contribute to the advancement of students' education. However, homework that is poorly crafted, not developmentally appropriate or assigned as busy work may do more damage than good. Dettmers et al. described high quality homework as carefully selected and prepared, developmentally appropriate, interesting assignments that support in-school learning. Homework that follows this model may be the most effective and cost-efficient way to solve some of the most complicated educational problems. I feel that the effectiveness of homework depends on how it is implemented, which lies solely with the teacher.

As United States students continue to fall behind their international counterparts, research continues to provide evidence that increased time spent on homework improves academic achievement (Keith, Diamond-Hallam, & Fine, 2004). Keith and Cool argue that "public and professional concern about the quality of American education highlights the need for a better understanding of the important influences on school learning" (p. 207). The growing concern facing schools is a deficit in the amount of homework being completed. This cannot be remedied by one group alone. I feel that students, teachers and parents/families all share responsibility for the current problem and play a major role in reversing the trend.

Strategies aimed to increase homework compliance fall into one of three areas: teacher-focused, student-focused, and parent-focused. I feel that teachers play a prominent role when it comes to increasing homework completion and accuracy and are pivotal for implementing change in the matter. However, the task of improving

homework completion and accuracy is not theirs alone; students and parents also play a major part in advancing student achievement. As research has shown that the amount of time spent on homework is directly connected to academic achievement, the logical assumption is that students would learn more if teachers assigned more homework (Epstein & Van Voorhis, 2001). I feel that the quantity of homework is not the solitary panacea for this problem. Students who are unmotivated or apathetic to doing homework are not likely to start completing their assignments simply because more work was given (Theodore, DioGuardi, Hughes, Aloiso, Carlo, & Eccles, 2009). Students perceive assignments that are either too easy or too difficult as a waste of their time (Dettmers, et al., 2010). It is the responsibility of the teacher to design homework that is high quality, developmentally appropriate and meaningful to students (Bryan & Burstein, 2004). Research has shown that selection of homework assignments is positively associated with student motivation and academic behavior (Dettmers et al., 2010).

This chapter discusses the implications for teachers, students, and parents when it comes to improving homework completion and accuracy. I will discuss the responsibility of teachers to design homework assignments that are both quality and meaningful to students. The importance of providing personalized feedback to students on their completed is also talked about. Another important implication pertains to the communication between teacher and student as well as teacher and parent. Increasing the self-efficacy of students is mentioned as a strategy to increase

engagement in learning. This chapter concludes with a discussion about personalized learning environments with regards to working at home.

Implications for Teachers

Crafting Quality Homework Assignments

Homework questions that are high quality must be carefully selected, not haphazardly chosen (Dettmers, et al. 2010). I feel that teachers need to spend more time creating quality homework assignments rather than make a quick copy out of a workbook. I have assisted students with homework assignments that have been carelessly chosen and heard their frustration firsthand. I feel they sense when teachers put little effort into deciding homework and treat these assignments with equal disregard. Two main indicators of high quality homework assignments are the selection of questions and how challenging those questions are posed to students (Dettmers et al., 2010). When crafting homework assignments, I feel it is important to include tasks of varying difficulty. Not only will this provide the teacher greater feedback on individual student's understanding, but it will also enable students of varying abilities to complete at least some of the assigned work. Teachers need to also be familiar with the individual characteristics of their students and assign homework that is appropriate for their developmental levels (Dettmers et al., 2010). It is imperative that teachers understand the level at which students are functioning and craft homework assignments that are suitable. If a lesson is developed to introduce students to writing the equation of new lines relative to a given line, it is inappropriate to include a

number of questions involving slopes of zero, slopes that are undefined, or slopes that are perpendicular. Students often identify differences in homework characteristics (in homework quality or control) as major determinants of how much effort they put into their assignments in different school subjects (Trautwein, and Ludtke, 2009). Students are likely to characterize lower cognitive assignments, such as spelling lower level words or factoring simple quadratic equations with only positive coefficients, as meaningless. Conversely, they can become frustrated with homework that demands levels of cognition that are too high, such as factoring quadratics involving larger exponents or multiple variables when their classroom experience had yet to breach this advanced topic.

Crafting Meaningful Homework Assignments

When teachers design homework assignments, they should be keep in mind that students exhibit a greater level of engagement when their assignments are meaningful to them (Bembenutty, 2010). Meaningful homework is designed to challenge students by causing them to think deeply about important questions, use their knowledge and skills in solving actual problems and working to create an authentic product that will serve an actual purpose. I believe that students often feel a sense of disconnect when it comes to mathematics. By working within the given curriculum and developing authentic exercises in which students generate data and discover mathematical relationships, I have discovered that they are not only more engaged in their work but also more likely to retain the concepts being introduced.

These assignments need to be well-planned by considering the interests, strengths and limitations, and cultural individualities of the student body (Bembenutty, 2010). The school in which I have taught is located in an urban district and is heavily focused on the performing arts. By drawing on the common interests of the student population and utilizing those interests in classroom activities and homework, I have found students to be more likely to complete those assignments. Educators can increase the effectiveness of their teaching and optimize assignments by crafting homework that is high quality, developmentally appropriate, and meaningful to students. (Dettmers, 2010).

Proving Written Feedback on Homework

Another easily implementable method for improving homework completion and increasing accuracy is providing written feedback on homework assignments (Elawar & Corno, 1985). Grading homework allows the teacher, for a brief moment, to gain a better idea of students' progress and where errors are being made. If a teacher crafts an assignment in which the difficulty of the homework problems varies randomly, they can take note of how students perform on the tougher questions. By simply glancing over an assignment for doneness, I feel gauging the degree to which students have grasped the material proves to be difficult. By grading and providing feedback on individual assignments, teachers may also recognize when to modify the pace of their instruction, allowing for more/less time when needed. Elawar and Corno (1985) argue that when teachers merely check homework for completion and

effort, students are left with no idea of how they did. The authors found that when accurate homework completion was paired with positive, written feedback, it resulted in higher rates of assignment completion as well as increased accuracy of homework and class work. They continue to say that homework with written feedback from teachers is most likely to facilitate student's continued learning.

Giving specific, individualized feedback provides the opportunity to focus students' attention to what is done correctly and suggest areas for improvement. (Elawar and Corno, 1985). These comments should be accurate and concise. Generic feedback, such as "Good job" does nothing to specify on what portion of the assignment a good job was done. A specific response, such as "I before e *except* after c" or "Remember to use keep-change-change when subtracting integers" provides the student with specific feedback that allows them to take note of what can be improved upon. Elawar and Corno (1985) argue that it is a positive method for drawing attention to student errors without drawing public, negative attention to their mistakes. This allows to be students more receptive to constructive criticism without the embarrassment of getting something wrong.

Teachers' Responsibilities

I feel that many teachers are unaware of the opportunities to enhance student learning by increasing homework quality. Perhaps these opportunities were never stressed in their teacher education preparation. Maybe the desire to design quality homework has faded and been replaced with complacency and indifference towards

the use of take-home assignments. Regardless of the reason, I feel that it is the duty of educators to be informed and current on effective methods for assigning homework. I strongly believe that homework is important for all grade levels. Keith et al. (2004) argues that homework assignments in the younger grades not only reinforces concepts learned in school, but develops a familiarity and pattern of doing work outside of the classroom. They continue to provide evidence showing the relationship between homework and achievement strengthens as students progress into middle school and grows even stronger as students enter high school. It is their professional responsibility to know how to value the grading of homework as an additional educational opportunity. This gap between teacher who assign homework on a regular basis and those who do not can be addressed through preservice, inservice, and professional development sessions for teachers and administrators (Bryan & Burstein, 2004; Epstein & Van Voorhis, 2001). It is important to involve teachers in each step of developing any new plans or policies to be implemented at the school level. Teachers are more willing to adopt new practices when there exists opportunities to collaborate with other teachers, when they have the support, encouragement of their administration, and when they have input into setting the policy (Bryan & Burstein, 2004). Even strategies that have been proven effective in increasing homework completion and accuracy have their drawbacks. There are a number of factors unique to each classroom that affects the ease at which these strategies can be implemented. While many developed strategies and methods have proven to been successful in increasing the rate at which students complete homework, a majority of the

interventions previously used have significant disadvantages that may reduce their classroom use (Little, Akin-Little and Newman-Eig, 2010). In order to be tried in classrooms, these new programs must be cost-effective, time-sensitive, easy to implement and work well with the existing organization of the class (Bryan & Sullivan-Burstein, 1998). Interventions that are expensive, take too much time, drain faculty resources, and are difficult to implement are less likely to be used by teachers.

Teacher Implication Summary

While improving homework completion and accuracy takes the collaborative efforts of teachers, students, and parents, the majority of the burden lies on the teachers. They have the most control and input when it comes to the design and deliver of homework assignments. Research has shown the importance of teachers creating homework that is both quality and meaningful to students. By engaging students by giving them work they find interesting and deliberately crafting that work to be of quality, I feel that homework completion will increase. Once students are interested in the work they are doing, I believe they will spend more time and put more effort into their assignments, rather than complete them haphazardly. This increased diligence pertaining to homework should help improve homework accuracy.

Implications for Students

Communication Between Teachers and Students

Better communication between teachers and students is also crucial to increasing homework completion and accuracy. When teachers notice differences in homework effort, they are likely to attribute it to students' negative character traits- carelessness, apathy or laziness- or to unfavorable home conditions (Trautwein & Ludtke, 2009). On the other hand, students tend to identify differences in assignment quality as determining the level of effort they put into their homework. I feel that open dialogue regarding the purpose and importance of homework can help narrow the difference in views of both teachers and students. This can be facilitated by utilizing students input when designing homework (Rademacher, Cowart, Sparks, & Chism, 1997). It allows for students to gain a better understanding of the purpose of homework and gives them power to make decisions that pertain to their learning.

Epstein and Van Voorhis report that increasing homework completion can close the achievement gap between low-ability students and high-ability students (2001). Many lower-level students struggle with homework because they find it difficult. Research suggests that teachers individualize, to an extent, homework assignments to better fit student needs (Bryan & Sullivan-Burstein, 1998). However, even if it were possible for educators to accommodate every child's limitation at any point during the school day, their help could undermine the most important aspect of this learning– a child development of a capability to self-regulate their own learning. The results suggest that high school teachers should design homework that more

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effectively to encourage and enable low-ability students to take the time they need to complete their work (Epstein & Van Voorhis, 2001).

Increasing Student Self-Efficacy

Some strategies and interventions are designed to modify the practices of teachers to promote students' self-efficacy. According to Bembenutty (2010), self-efficacy is the belief in one's ability to perform at a designated level. Research has long looked into the roles students play in their learning (Bembenutty, 2010; Trautwein & Ludtke, 2009; Xu, 2005). There are crucial skills that students develop as they progress from elementary school into high school and eventually into college or the work force (Theodore et al., 2009). Studies show that teachers have a crucial role in promoting self-regulation of learning with respect to homework assignments (Axelrod et al., 2009; Zimmerman, 2002). Students who struggle with completing homework are often characterized as having poor motivation, problems in listening comprehension, and a lack of organizational skills (Bryan & Burstein, 2004). I feel that teachers need to design and implement activities and homework assignments that build self-management, self-regulation, and self-control. These skills serve multiple purposes and have benefits both inside and outside of the classroom. Increasing these student skills will also promote students self-efficacy and encourage children to have a vested interest in their education (Bembenutty, 2010). Research has shown that the way students approach their homework assignments has profound effects on their school grades, with greater effort investment in homework being associated with

higher achievement. (Trautwein & Ludtke, 2009). Although teachers also need to know children's strengths and limitations in learning, I feel their goal should be to empower their students to become self-aware of these differences.

Another strategy teachers can implement is the use of cooperative learning models with students. Bryan and Burstein (2004) argue that the cooperative learning model provides mutual goals, group work, and rewards based on the success of the entire group rather than one individual. I utilized a similar strategy while student teaching. Every class had a graduated cylinder in front of the classroom. The first class that completely filled their cylinder with marbles would be rewarded with a party. Classes were able to add a marble to their cylinder for each time the entire class finished their homework. This led to positive peer pressure from students as well as individual desire not to be the one who ruined it for the group. Bryan and Burstein (2004) continue to discuss how the cooperative learning model has been proven to have significant efforts on academic achievement, growth of cognitive skills, and improved feelings of student self-efficacy and self-worth.

Implications for Parents

Communication Between Teachers and Parents

The final group of implications from this research pertains to teachers and their relationship with parents. The discrepancies between the beliefs and expectations of parents and teachers demonstrate the importance of communication and building consensus on expectations, homework, and how to resolve problems.

Bryan et. al (2001) found that teachers and parents tend to blame each other for numerous problems that arise. The authors continue their argument, noting that failing to initiate and maintain communication about homework, especially when problems are first noticed, has become a major issue between teachers and parents. Quite often, these problems continue to grow until both involved parties explode in frustration. I believe that teachers need to follow through with previously agreed up avenues of communication and homework-related tasks. They need to deliver what they promised and not just give parents lip-service. The communication between parents and teachers also needs to be clear so that neither side can misinterpret what was said and what is expected. Teachers should encourage parents to be involved in all aspects of their child's education, especially homework completion. Most teachers need new strategies, organized methods, and specific tools to help parents be more productive and involved at home in their children's schoolwork (Epstein & Van Voorhis, 2001).

Learning Environments

Recent research by Hong et al. (2004) has shown that preferred learning environments in which students study and complete homework has an effect on their achievement. The authors point out that many parents assume that there is one ideal setting that is best suited for students to learn. Despite no issues pertaining to their child's grades or schoolwork, parents still to force students to abide by a certain set of rules while studying or doing homework. Examples of such rules include forcing all

studying to be done at the kitchen table or not allowing music to be played while doing homework. Parents were surprised to discover there is a wide variety of personal preferences when it comes to the favored environment in which students choose to do their homework (Hong et al., 2004). It is important for parents to be flexible and understanding when it comes to learning environments. When a student's grades begin to decline, modifying the conditions of their personal learning environment becomes a valid attempt to rectify the matter. I feel that if a student is performing to a level that satisfies their parents expectations, their learning environment has shown to be successful and need not be modified. Teachers need to appropriately inform parents of new research regarding this. This will not only increase students' achievement on homework, it can serve to pacify the student-parent conflict over homework.

Teacher, students, and parents all hold play important roles in trying to improve completion and increase accuracy of homework. While the functions played by each stakeholder differ, each one holds responsibility for improving student achievement. It is important to recognize that teachers, students, and parents hold different expectations regarding homework, and these differences influence how they collect and interpret information. While aspiring to equity may prove to be unrealistic due to individual differences amongst students, I feel it is still the duty of all teachers to ensure that all students are provided with the best opportunity to succeed.

CHAPTER FOUR: RECOMMENDATIONS FOR FUTURE RESEARCH

While the studies pertaining to improving homework completion and increasing homework accuracy have addressed the roles played by students, teachers, and parents, there remains areas of research that published work has not adequately addressed. Results of these investigations often bring to light issues unanticipated or unintended by the purpose of the research, furthering the direction and focus of future study. Review of the literature has exposed a variety of topics that demand further investigation. While research aimed at increasing the quality and quantity of homework is promising, it is still in initial stages and deserves further study.

Strategies for Implementation

While the recent focus of homework research has targeted quality of homework, deeper investigation as to what this means for individual subjects is warranted. Numerous studies have looked into the value of designing homework that is high-quality, developmentally appropriate and meaningful. These studies have yielded promising results that have piqued educators' interests in implementing them in their own classrooms. I would like to see future research performed on practical methods and strategies for introducing some of these interventions to the classroom. While many strategies and interventions have proven effective in ideal settings, I would be interested in ways to modify these methods to implement them in a classroom in an urban setting. So many of my students bring a variety of extracurricular issues into school and many are below grade level. Utilizing these

methods with a wide array of students and abilities is an area of research I feel should be further pursued. So while studies have yielded promising results, adequate research has yet to be performed to examine effective strategies for teachers to adopt in improving the assignments they give.

Parental Factors

Results of numerous studies have demonstrated the positive effect that parental involvement has on student achievement. However, the spectrum of 'parents' is quite broad. Further research needs to be done to look into the parental factors that influence student achievement: cultural background, socioeconomic status, educational history. In my school district, many students enter into kindergarten developmentally behind their suburban peers. This gap continues to grow as they progress through school, leaving parents and teachers often pointing their fingers at each other. I would like to see further research into the effects that parental backgrounds have on students' achievement and attitudes towards learning. While most parents want their children to be more successful than they were, this often proves difficult when some parents have not completed high school themselves. This contributes to the stress that school brings to the parent-student relationship. Some of the differences in parents' views of education are connected with their ethnicity as cultures view education differently. These minority groups are sometimes underrepresented in surveys due to being uninformed or apathetic. Focused research on these groups could shed insight into strategies and interventions that could prove

effective. This focus of extended research could also extend to analyze differences in

motivation and achievement across gender and ethnic groups.

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