Effective homework in the middle school

Kelly J. Simon
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Abstract
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EFFECTIVE HOMEWORK IN THE MIDDLE SCHOOL

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Kelly J. Simon

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8-18-08
Date Approved

Donna Schumacher-Douglas
Graduate Faculty Reader

8-19-08
Date Approved

Rick C. Traw
Graduate Faculty Reader

8-21-08
Date Approved

Jill M. Uhlenberg
Head, Department of Curriculum and Instruction
ABSTRACT

This literature review examines the studies and research of the best practices and most effective implementation of homework in the middle school classrooms. It is found that parental involvement, teacher design and proper implementation of the homework are the most important factors for homework to have the desired effect on an adolescent’s success in a subject. There are significant differences of opinion on many homework related issues, especially with regard to the overall contribution of homework academic success. However, one aspect that is universally agreed upon is that students, teachers, and parents are all important in determining the degree to which homework is effective in meeting its goals.
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CHAPTER 1

Introduction

Homework is an instructional technique that is universally known to teachers, parents, and students (Gill & Schlossman, 2000). By the time students are young adolescents and reach the middle grades, homework has become a staple in their lives ("Middle School Students Seek Homework Help", 2006). The question then is why do so many students and parents shudder at the mention of the word homework? There are several possibilities. Perhaps the homework is ineffective, or the goal of the assignment has not been clearly communicated? Or possibly, completion of homework takes the better part of each night, causing significant frustration levels for both students and their families. A final factor may be a lack of constructive feedback. Homework has been debated for decades, but the main purpose of this review is not to continue debating its worth, but rather to discover how it can be made an effective tool for adolescents through the middle school years.

Rationale

As a fairly new teacher, not yet being in the business for a decade, I have been facing an inner and outer battle with homework. Sitting in a colleague’s classroom in mid-November of 2007, I noticed his desktop calendar. This calendar is like so many we have all seen, each day has the date and some sort of funny anecdote, joke, or other teacher related tale based from common experiences in education. This particular day’s
account ("Teachers: Jokes, Quotes, and Anecdotes 2007-2008 Calendar") stuck me on a personal as well as professional level:

The average student spends 90 minutes per night on homework assignments. The time is broken down as follows:

15 minutes looking for assignment
11 minutes calling and asking a friend for the assignment
23 minutes explaining why the teacher is mean and just does not like children
8 minutes in the bathroom
10 minutes getting a snack
7 minutes checking the television schedule
6 minutes telling parents that the teacher never explained the assignment
10 minutes sitting at the kitchen table waiting for Mom or Dad to do the assignment

Now, although on the surface, this particular calendar page was meant to bring humor to the reader, I found it disturbing. Particularly so because much of it reflects our current society as a whole. With parents working long hours, extra-curricular activities to attend, and our current age of technology taking over adolescent's lives, the value of homework is being questioned in homes across America (Bryan & Sullivan-Burstein, 1998). This is why my inner and outer struggle with homework had turned into a battle in which I was ready to engage.

I initially became interested in the subject upon consideration of common problems for both educators and students. Educators need to be fully prepared to answer any challenge questioning the value of the homework assigned. In my own experience,
the most disturbing part of these encounters was that at times I did not have a good answer. I also chose this topic to improve my understanding of the parameters of quality homework and practice; thus, I will have informed answers for students and parents who challenge the practice.

This topic is also close to my heart as I remember my own school days, from middle school through college. I can clearly remember being unconvinced that certain assignments had any value, which often led to incompletion or a poor effort. Now, as a professional educator, it is important to have the confidence in the assignments and homework that I assign. I never want the students to have the impression that it is simply "busywork." I want them to begin to develop the meaning and power behind what is considered "work" as it has been instilled in me. My goal is to end the battle of homework, if not on the level of society, at least in my classroom and in the homes of my students.

Purpose

My goal as a professional is to instill in my students the understanding of the adage: if it is worth doing, it is worth doing well. I anticipate the results of this research will improve my ability to plan and use effective homework strategies that will enhance the learning experiences for adolescents in my care. I also anticipate sharing this knowledge with my colleagues in their ongoing planning and implementation of homework.

Terminology

Below is a list of terminology related to the fields of homework covered throughout this study. Refer back to the terminology list as needed.
• **Adolescence** – the period of life from puberty to maturity terminating legally at the age of majority. (Merriam-Webster Online Dictionary, 2005)

• **Adolescent** – one that is in the state of adolescence. (Merriam-Webster Online Dictionary, 2005)

• **Formative Assessment** – assessment for learning. Assessment that happens while students are still in the learning process. This assessment helps teachers diagnose student needs, provide feedback, and show students how to improve (Stiggins, Arter, Chappuis, & Chappuis, 2004).

• **Homework** - tasks assigned to students by school teachers intended to be carried out outside of class time (Bempechat, 2004; Cooper, 2007).

• **Interactive Homework or TIPS (Teachers Involve Parents in Schoolwork)** – homework designed to require students to talk to someone at home or outside of school to complete some or all of the work (Van Voorhis, 2004).

• **Middle School** – a school organization containing grades 6-9 that provides developmentally appropriate and responsive curriculum, instruction, organization, guidance, and overall educational experiences. Philosophy places major emphasis on 10-to-15 year olds’ developmental and instructional needs. (Manning & Bucher, 2005)

• **Summative Assessment** – assessment of learning. Assessment that happens after the learning process has ended. These assessments include unit exams, projects, and standardized tests. The focus is to assign a grade to indicate student achievement (Stiggins et al., 2004).
Research Questions

The purpose of the literature review is to find the most effective practices of homework for middle school students. The following research questions guided this literature review:

1. How can homework be an effective teaching tool, a useful communication strategy, and a beneficial learning experience for adolescent students?

2. What role does parental involvement play in effective homework practices?

3. What role do teachers have in making homework an effective teaching practice?
CHAPTER 2

Methodology

The purpose of this chapter is to explain the methods used to select sources and analyze the data presented in these sources. Effective homework in the middle school has been studied for decades (Cooper, Robinson, & Patall, 2006). Many factors are considered in the literature including the amount, purpose, and academic effects (Kohn, 2007). Administrators, teachers, parents, and students frequently have different ideas on what makes homework effective (Cooper, 2007). The large number of opinions on this subject requires an open mind to critically evaluate all sides of the debate. In order to discover what the research truly says about effective homework, I approached the entire field of literature with an open mind.

Methods for Locating Sources

In my search for valid research and articles on effective homework in the middle school, I found many different approaches worked well. Using the Rod Library online search engine on the University of Northern Iowa website was my most frequent way of accessing articles. Specifically, the PowerSearch program lead me to use many different databases. I most frequently used Education Full Text (Wilson), ERIC (EBSCO), and ERIC (U.S. Department of Education). In addition to the University of Northern Iowa’s tools, I also took advantage of our Keystone Area Education Agency’s search engine to gather additional professional articles.

The beginning of my searching procedure started with the search terms “effective homework.” Those search terms worked well in finding a plethora of sources pertinent to my research, however they also retrieved many articles that did not pertain to homework.
in middle school. The next search I conducted included the search terms “middle school” and “adolescence” in addition to the already used search terms of “effective homework.” From that point I narrowed the search down to use “language arts”, “middle school”, and “effective homework.” I found this search to be too narrow, so upon further examination, I changed the phrase “language arts” to “reading.” These changes in wording lead me to many articles that were relevant to my research. I also searched using the term “quality” to replace “effective” to see if other research could be found. As I looked back at my research questions, I also conducted searches for “homework and teacher design” and “homework and parental involvement” to gather more information to answer those particular questions with more depth.

In addition to using online sources and search engines, I also used books and materials from our professional library in my school district as well as books and journal articles I had collected over the years. As my search continued, I was able to identify several authors who were particularly relevant; these included Cooper, Epstein, Kohn, and Van Voorhis.

Methods for Selecting Sources

Due to the large number of sources, I then excluded those that were not focused on middle school or adolescents. In addition, I made an effort to use studies from a variety of time periods, in order to be certain that the information could be connected over decades of research, not just during one particular time period. However, I kept my focus on recent articles that prove valid in our current system of education. In addition I placed extra emphasis on empirical research to make sure the information was attained through rigorous research and detailed case studies. Lastly, I narrowed the search to those
articles which validated homework, in order to conform to my school district’s belief in the implementation of homework.

In the process of locating sources, I also found many current media articles and news programs that had recently produced pieces on the subject of homework. However, I decided to exclude these as valid sources because of the biased nature in which they were written or reported. For example, in one particular program aired on The Early Show on CBS on October 14, 200 (cbsnews.com, 2000), the majority of their information and sources came from parents of adolescents that were upset with the amount of homework the students brought home each night. The program did not give any details about the kind of homework, the purpose, or even the time frame in which it was assigned. I found sources such as the above to be invalid and contained too much bias. I felt the aim of those sources was to simply report observations with no quality data and education theory.

*Procedures for Analyzing Sources*

To begin analyzing the sources I selected, I looked for similarities and differences in the headlines and focuses of each source. I wanted to find out what different authors found important, and then make those same key focuses into the categories I would concentrate on for this paper. I found similarities in the categories of homework time and amount, homework and family involvement, and how homework affects academic achievement. I also knew I wanted to find research that included the teacher and school’s role in homework, as I wanted my paper to benefit myself and my school district.

Much of the work of this paper was done as I was reading and analyzing the sources, and I found that research and gathering of sources was an ongoing part of this
project. This continued through the last edits, as it was important to confirm that my literature review captured contextual data and complexity. This process took a great deal of time and effort, but it was a necessary part of the process for a thorough literature review.
CHAPTER 3

Literature Review

What is effective homework for middle school students? Many factors must be considered including the amount, purpose, academic effects, and parental involvement (Kohn, 2007). Depending on their specific focus, researchers have come to different conclusions in their studies. For middle school students however, one finding has been made clear: adolescents are ready to work and achieve when they know that people care about them, that what they are learning matters, and that they possess the skills necessary to meet a given challenge (Daniels, 2005; Kreider, Caspe, Kennedy, & Weiss, 2007).

Homework in Historical Perspective

Public attitudes toward homework have been cyclical over time (Cooper et al., 2006; Gill & Schlossman, 2004). Prior to the 20th century, homework was believed to be an important means for disciplining the minds of children. Homework for what was then called the grammar school grades (5-8) was often very tedious and time-consuming. It was the basic method of teaching subject matter through drill, memorization, and recitation (Gill & Schlossman, 2004). By the 1940s, a negative reaction against homework was forming. Developing problem-solving abilities, as opposed to learning through drill, became a central task of education (Cooper et al., 2006). The major focus of concern was on children in grades 4 to 8. The drill/memorization/recitation routine was now seen as a threat to adolescents’ physical and mental health (Gill & Schlossman, 2004).

In the prime of Progressive Education in 1920s and the 1940s, homework continued to take a strong hit. Several communities even went so far as to abolish
homework in some or all grades (Gill & Schlossman, 2004). Ironically enough, even
with all the intrusion on homework by the educational and popular press, parents of this
time remained in support of the practice (Gill & Schlossman, 2004). Gill and
Schlossmann (2004) summarized the thoughts of the time in the following statements:

> It seems clear that parents believed, despite contrary conclusions reached by
> scholars, that children who did homework learned more. Apart from its direct
> academic benefits, many parents also believed that homework fostered good
> character traits...Parents also used homework as a tool to maintain some
> involvement in their children’s education, and to monitor what the schools were
> teaching their children. (p.176)

Homework remained a controversial issue during the 1950s and 1960s, but the
discourse changed in major ways. Whereas the perceived problem in the first half of the
century was the negative effect of too much homework on children and families, the new
discourse pronounced too little homework as an indicator of the dismal state of American
schooling in the Progressive Education Era of the 1940s (Gill & Schlossman, 2004). The
trend toward homework was reversed in the late 1950s after the Russians launched
Sputnik (Gill & Schlossman, 2004). Americans became concerned that a lack of rigor in
the educational system was leaving children unprepared to face a complex technological
future and to compete against our ideological challengers. Homework was viewed as a
way for students to increase the pace for learning new information (Gill & Schlossman,
2004). Researchers and homework reformers argued that teachers could raise the
academic level of homework and make it more enjoyable for students by incorporating
“activity-based, hands-on, individualized assignments that were equally compatible with
the goals of academic excellence and progressive education" (Gill & Scholssman, 2004, p.178).

But in the mid-1960s the cycle again reversed itself (Cooper et al., 2006), and homework came to be seen as a symptom of excessive pressure on students (Gill & Scholssman, 2004). Contemporary learning theories of this time again questioned the value of homework and raised the possibility that it could harm the mental health of students (Cooper et al., 2006; Gill & Scholssman, 2004). Surrounded by the Vietnam War and the late civil rights movement, the big concern now was not what types of homework might best increase student achievement, but whether students could be persuaded to attend school on a regular basis, pay attention, or study seriously at all (Gill & Scholssman, 2004).

By the mid-1980s, views of homework had again shifted toward a more positive view. In the wake of declining achievement test scores and increased concern about American's ability to compete in a global marketplace, homework underwent its third renaissance in 50 years. Throughout the 1980s and 1990s, homework's value was touted for building academic strengths, character-building in students, and for increasing America's international competitiveness (Gill & Scholommann, 2004). However, as the century turned, and against the backdrop of continued parental support for homework, a predictable backlash set in, led by burdened parents concerned about the stresses on their children (Cooper et al., 2006).

The latest debate about homework is being fueled by recent books published on the topic in the last few years such as The End of Homework (2001) by Kralovec, The Homework Myth (2007) by Kohn, and The Case Against Homework (2007) by Bennett
and Kalish. In addition to the publications of books against the topic, new findings from a Pew Research Center show that most Americans think parents do not put enough pressure on students to do well in school (Gewertz, 2006). The portraits painted by the authors of the books against homework offers totally different viewpoints than what has been found through the research mentioned above, which certainly continues the 100 year old debate of homework and makes it just as hot of a topic now as it was back in the 19th century.

Affecting the Academic Achievement of Students through Homework

The homework-achievement relationship is a complicated thing for teachers, students, and parents (Cooper, 2001). Teachers complain about students not completing their assignments, students dislike the time it takes away from other activities, and parents dislike the stress homework adds to their night (Hoover-Dempsey et al., 2001). Yet despite these downsides, the majority of teachers, students and parents believe that homework is a valuable educational tool (Cooper, 1989; Cooper, Lindsay, Nye, & Greathouse, 1998; Trautwein, 2007). Nevertheless, the complication is that researchers have been far from unanimous in their assessments of the benefits and limitations of homework. Different researchers have gathered evidence that homework has positive, negative, or inconsistent effects on achievement (Cooper, et al., 2001). Many of the differences in the studies vary depending on the age group involved in the study, the fact that influences on homework are multiple and complex, and the ethical constraints on the researcher’s part when working with minor children (Cooper et al., 2001). With adolescents, however, homework is reportedly a leading factor for improving academic performance for students who (1) have the ability to work independently and (2) for the students who have adequate parental support (Battle-Bailey, 2006). Many studies support
the notion that the relationship between homework and achievement is a positive one for adolescents, but they also underline the importance of taking differentiated views on the matter (Battle-Bailey, 2006; Cooper, 2007; Kreider et al., 2007). Therefore, it is in the best interest of all concerned to take into consideration the criteria of the studies before applying the results.

Cooper, Robinson, and Patall (2006) compiled the results of six studies conducted between 1987 and 2003. The studies used sample groups of students who did homework with students not doing homework and who also did not participate in an alternative academic activity. Combined, these studies included approximately 500 students in 25 classrooms. Of the six studies, four used random assignment. The two studies that did not use random assignment tried to make the students composing the homework and no-homework groups as similar as possible, on average, by statistical control or by matching a student in one group with a similar student in the other group and eliminating students who did not have a good match. The results of these studies demonstrated that homework can be effective in improving student scores on unit tests completed at the end of a topic unit. Six comparisons showed that the students doing homework did better than those who did not (Cooper et al., 2006).

Five of the studies provided Cooper et al. (2006) with enough information to estimate the impact of homework on unit test scores. These studies suggested that the average student doing homework had a higher unit test score than 73% of students not doing homework.

The researchers noted that there are several important qualifiers to their general conclusion. The estimate of homework's effect is only based on six studies and each of
those studies had methodological flaws. However, the fact that results were consistent across studies with different flaws lends confidence to their conclusion. Another caveat Cooper et al. (2006) noted was the effect of homework refers only to unit tests and not necessarily overall academic achievement. In conclusion, they found that relative to other instructional techniques, homework can produce an above-average positive effect on adolescents' performance in school (Cooper, 2007).

Despite large numbers of empirical studies on the subject, however, the exact nature of the relationship between homework and achievement is still in dispute (Trautwein & Lüdtke, 2007). Much of the empirical research fails to reflect the difficulty of interactions among classroom, family, peer, and student factors in the context of homework assignment and completion. In addition, the design of many of these studies prevents firm conclusions being drawn about the strength of the homework-achievement relationship (Trautwein & Lüdtke, 2007). In contrast, self-reported effort on homework consistently has been found to be positively associated with student achievement (Trautwien & Lüdtke, 2007; Zimmerman & Kitsantas, 2005). It has been repeatedly concluded that effort on homework has a profound impact on student achievement (Trautwein & Lüdtke, 2007).

In studies done by Trautwein (2007), it is argued that further studies on the homework-achievement relationship must be done, but with more caution regarding difficult-to-control variables, such as the amount of time spent on homework. In addition, critics of homework, such as Kohn (2006), argue against Cooper's research, stating that there are discrepancies between these results and the proposed recommendations. While the positive effects of homework on the achievement levels of middle school students has
been documented worldwide (Cooper, 1989), further studies are necessary as the correlation between homework and achievement is still being vigorously debated (Minotti, 2005).

Positive Family Involvement in Homework

Several studies have investigated the role of parents in the homework process (Battle-Bailey, 2006; Bryan & Burstein, 2004; Cooper, 2007, Epstein & VanVoorhis, 2001; Hoover-Dempsey et al., 2001; Kohn, 2007; Kreider et al., 2007; “Middle School Students Seek Help”, 2006; Tonn & Wallheriser, 2005; Trautwein & Lüdtke, 2007; Xu & Corno, 2003). In one study of middle school students it was found that parents helped their children with homework an average of one to three times per week, and reported checking homework an average of four times per week (Eccles & Harold, 1996). However, students also reported that teachers only asked them to request assistance from their parents once or twice a month. This study indicates that, with or without teacher request, many parents are consistently involved in student homework (Van Vorrhis, 2004).

Xu and Corno (2003) suggest that by establishing routines and monitoring progress, parents can continue to influence their children with respect to homework completion throughout middle school. In Xu and Corno’s study, students reported that they were most attentive to homework when completing it in the presence of a parent rather than with a peer or on their own (2003). In addition, standards, modeling, and appropriate feedback from parents of all socioeconomic backgrounds indicate that parents can help students to develop effective self-regulation skills and routines – even in the adolescent years (Zimmerman & Kitsantas, 2005). While it is clear that adolescents
desire self-sufficiency, independence, and time with peers, they also rely on guidance from parents and other adults (Kreider et al., 2007).

It also seems that homework can have positive effects on home life as well. As stated in Battle-Bailey (2006), "[the famous philosopher] Piaget postulated that children learn best when afforded opportunities to interact with their environments. If Piaget is correct, then the more children interact with their parents while completing school assignments, the more likely they are to experience success" (p. 2). Family involvement in academics and learning remains important in the adolescent years (Kreider et al., 2007). By having students bring work home for parents to see and perhaps by requesting that parents take part in the process, teachers can use homework to increase parents’ appreciation of and involvement in schooling (Cooper, 2007).

Parental involvement is also thought to have positive effects on the children as well. Students become more aware of the connection between home and school and it is an opportunity for parents to demonstrate an interest in the academic progress of their children (Cooper, 2007). Family involvement in education remains a powerful predictor of various adolescent outcomes (Kreider et al., 2007). By monitoring adolescents’ academic lives, parents can prevent emerging problems from becoming larger, foster identity achievement, and promote academic growth (Kreider et al. 2007). Cooper, Lindsay, and Nye (2000) found parental support to be associated with higher homework completion rates as well. In general, parental education and parent-child communication about school are both positively correlated with positive outcomes (Cooper et al., 2000). As found by the Harvard Family Research Project (Kreider et al., 2007):
Parental encouragement and concrete help in managing homework supports adolescents' learning, helping them to complete homework more accurately, so that when they study on their own, they can do so with fewer problem behaviors. Such help can also decrease conflict over homework and raise grades. (p.7)

The success of parental involvement on homework success is not dependent only on the quantity of direct parental participation (Trautwein & Lüdtke, 2007). It is often the case that the act of committing to the process alone is the major factor on success, rather than just the amount of time committed (Xu & Corno, 2003). Many times high parental expectations are all that are needed to improve student outcomes (Kreider et al. 2007). When adolescents perceive that their parents have high educational goals, they have more interest in school, greater guidelines, and higher goals for themselves (Kreider et al., 2007; Xu & Corno, 2003).

However, the teacher and school have an important role in this process, as it is important that expectations are effectively communicated with parents. “Many parents lament the impact of homework on their own relationship with their children; they also may resent having to play the role of enforcer and worry that they will be criticized either for not being involved enough with the homework or for becoming too involved” (Kohn, 2007, p.35). Even for the parents who regularly help with and accept homework as a part of their nightly routine, there are few regular communications and guidelines between school and home about the homework process (Van Voorhis, 2004). In a study conducted by Epstein and Lee (as cited in Van Voorhis, 2004) of 1,011 middle schools, more than 75% of principals stated that fewer than half of the parents received regular information about how to help their children with homework. Other studies by Cooper et al. (2006)
indicate that parents are sometimes aware that they do not provide the correct kind of help, and they often feel unprepared to help with some subjects. These studies speak clearly for the need to better communicate and offer more guidance to parents about the expectations of homework interactions (Van Voorhis, 2004).

Although relatively little research exists on the best method to encourage middle school students in their personal homework responsibility, it does seem clear that the establishment of routines and monitoring of progress by parents is important (Xu and Corno, 2003).

**The Teacher's Role in Effective Homework Practices**

A major factor in homework success is the utilization of assignments that are developmentally appropriate in terms of their difficulty and time commitment (Bryan & Burstein, 2004). Even homework opponents, such as Kohn (as cited in Marzano & Pickering, 2007), advocate the use of assignments that are beneficial to student learning rather than homework simply as a matter of policy. There are decades of research documenting the beneficial effects of homework, however the specific design is critical for it to be effective (Marzano & Pickering, 2007).

The quality of homework given by the teacher directly affects the homework behavior displayed by the student (Trautwein & Lüdtke, 2007). Quality homework assignments are carefully designed to reinforce classroom learning and diagnose the individual student's progress and difficulties (Trautwein & Lüdtke, 2007).

The research indicates that homework effort is predicted by homework motivation, which is associated with perceived homework quality and control (Trautwein & Lüdtke, 2007). The result of the literature reviewed indicates that teachers can
influence homework behavior through their practices of designing, assigning, and controlling its completion. Therefore, the teacher must assign work that is within the appropriate time parameters, designed to match the curriculum, and allows for communication and feedback (Cooper, 2007; Van Voorhis, 2001).

**Time**

The value of homework can be greatly improved if both the teacher and the student commit sufficient time to the process. The student must spend time completing the homework, while the teacher’s time is devoted to design and feedback. The time students spend on homework can be a delicate subject (Cooper, 2007). Finding the balance between assigning too much homework and not enough can be elusive, and there is much disagreement surrounding this issue (Bryan & Burstein, 2004; Marzano & Pickering, 2007). However, one thing that researchers agree upon is that there are many important factors including age, skill, and background of the students (Cooper, 2007). Although there is no magic formula and every situation will be different, many recommendations have been made based on improvements in student achievement.

Optimum amount of homework and time spent on homework depends greatly on student age or developmental level (Cooper, 2007). Cooper (2007) found the correlation between time spent on homework and achievement was substantial for secondary school students (representing Grades 7 through 12 or samples that were described as middle or high schools). One guideline suggested by Cooper and Valentine is that students should spend 10 minutes of homework per night for each grade level (2001). By this recommendation, young adolescents should be spending an average of one hour to an hour and a half on homework. In studies reported between 1977 and 1986 (Cooper,
2007) with middle school students, a positive correlation between time spent on homework and academic achievement was found with even the most minimal amount of time on homework (less than one hour), however this disappears entirely at the highest interval (more than 10 hours). Cooper and Valentine (2001) also suggest that these amounts can be adjusted and made longer if assignments consist mostly of reading or if students have families with strong educational orientations.

In an evaluation of studies, Butler (2001) found that junior high students (grades 7-8) should be regularly assigned homework, but not necessarily daily. As a guideline, total daily homework assignments should not require more than two hours and rarely more than one hour of out-of-class time (Butler, 2001). As stated in Thomas (1992), the National Parent – Teachers Association and the National Education Association, recommend sixth graders have from twenty to forty minutes per day. From seventh to twelfth grade, the recommended amount of time varies according to the type and number of subjects a student is taking. In general, college bound students receive lengthier and more involved homework than students preparing to enter the work force immediately after graduation (Thomas, 1992).

Chen and Stevenson (1989) found that students in the United States do less homework than students in other countries. The insinuation that is made by Chen and Stevenson’s study is that if teachers in U.S. public schools assigned more homework, students would learn more and schools would be more effective. However, Epstein and Van Voorhis (2001) believe this solution is too simple; just assigning more homework is an ineffective response. Students who presently do little or no homework are unlikely to work harder and longer just because more homework is assigned. The move of assigning
more homework is based on the belief that the more time students spend on homework, the more they will learn. However, the connection of time spent on homework and student achievement are complex (Epstein & Van Voorhis, 2001). Several recent studies suggest that students who spend more time on homework do not necessarily do better than others (Cooper, 1989; Cooper et al., 2006; Muhlenbruck et al., 2000). At the appropriate level, a higher number and higher frequency of homework assignments given have proved to be associated with higher achievement gains, but more time spent on homework has not (Trutwein, 2007).

Design

The implications of the teacher's actions in designing homework should be taken into account when measuring time spent on homework and the effectiveness for the students (Epstein & VanVoorhis, 2001). It is simply the case that some assignments do not merit the amount of time required for completion (Kohn, 2007). Teachers should carefully consider whether a homework assignment will help students think deeply about the critical questions related to the curriculum (Kohn, 2007). Epstein and Van Voorhis (2001) found most research examines what students do, and how the homework or time spent on the homework affects their achievement or success in school; however, the homework process begins with the teachers who create and assign the homework. Kohn (2007) suggests that in most cases, students should be asked to do only what teachers are willing to create themselves, as opposed to prefabricated worksheets or generic exercises photocopied from textbooks. Ultimately, teachers should not use homework to enforce the drill, memorization, and recitation routine of pervious centuries (Gill & Schlossman, 2004).
The challenge for teachers as they design homework is to assign work that strengthens the targeted skills and knowledge in a way that is relevant and interesting to the students (Coutts, 2004). Homework must be designed as to give each student the opportunity to participate and demonstrate understanding of the topic, especially for those students who don’t find it as easy to vocalize understandings or ideas in class (Van Voorhis, 2004). One way to design homework that effectively meets this criterion is by creating an interactive homework design, like that of The Teachers Involve Parents in Schoolwork (TIPS) (Epstein & Van Voorhis, 2001; Van Voorhis, 2004). The TIPS process is one designed for interactive homework that guides students to conduct conversations and interactions with family partners in all subjects. By teachers designing homework that purposely includes a requirement for home interaction, they continue the school to home connection (Van Voorhis, 2004). In turn, students are able to show their parents what they are learning in class, and parents are then better informed on the education of their children (Epstein & Van Voorhis, 2001). As Epstein states, “‘Interactive homework’ encourages students to share interesting things they are learning in class with family members, friends, peers, or others in the community” (as cited in Epstein & Van Voorhis, 2001, p.186).

Parental help is not the only avenue available for desired adolescent interaction. Corno (1996) suggests other ways teachers can design homework to further student social skills. Teachers may design homework so that students work with one another after school at home, by telephone, or through the internet. Homework done with other peers helps students bond, draws from each other’s talents, and asks them to communicate on a level that might not otherwise be done (Corno, 1996). This type of innovative approach to
homework design also helps adolescents foster critical relationships (Kreider et al., 2007).

Designing homework requires teachers to take into account many elements. Teachers must think about the purpose, format, grading, and other essentials of the assignments that will engage the students and help them be successful (Epstein & Van Voorhis, 2001). Teachers play a vital role in the issue of time and homework success. Homework quality as well as giving homework on a regular basis may increase achievement and improve attitudes toward learning (Butler, 2001). Kohn (2007) suggests teachers create several assignments adapted to appeal to different interests and capabilities. Epstein and Van Voorhis (2001) concluded that when teachers design homework to meet specific purposes and goals, more students complete their homework and benefit from the results.

Implementation

The Northwest Regional Educational Laboratory [NREL] (2005) compiled a report of research-based strategies focusing on homework effectiveness. In the discussion of homework and practice it states, “Effective teachers approach this kind of learning experience as any other - matching the planned activity to the learning goal” (NREL, 2005, p. 2). Homework should not be approached as an afterthought to the school day, but as a focused strategy for increasing understanding. Appropriate homework and well-designed student practice will increase student learning (Cooper, 2007). Regardless of the particular area, homework assignments will not be taken seriously unless the purpose of the task is clearly communicated (Marzano, Pickering, & Pollock, 2001).
Teachers must know that the students have the skills and an understanding of necessary concepts to complete the assignment; insufficient preparation for homework may result in higher levels of student frustration (Butler, 2001). Marzano, et al., (2001) stress that when homework is assigned for the purpose of practice, it should be structured around the content with which students have a high degree of familiarity. If not for practice, then homework should prepare students for new content or have them elaborate on content that has been previously introduced. In this case, it is not necessary that the students have an in-depth understanding of the content; however, the goal and purpose must be clear. Furthermore, classroom assignments should build on homework to reinforce the value of the curriculum and essential concepts of the class (Butler, 2001).

Homework should be based on quality class work. The implementation of quality work given during class hours is believed to give teachers a better understanding of student knowledge or lack of knowledge of the concepts taught (Glasser, 1992). Glasser (1992) suggests work that is intended to be completed outside of class time should follow those same guidelines and give teachers the same feedback for each student’s level of understanding. Glasser (1992) describes what he believes are the results of assigning quality class work:

Like adults in the world of work, children (in my experience) do not resent doing sensible, well-planned work, and they appreciate the chance to do some of the planning. They accept that they are in school to work, and if the work is seen as useful, they are more than willing to do it. As students get more involved in quality work and as they evaluate and get the chance to improve what they do, they will find that they do not have enough time in class to do as much quality
work as they want to do. What they will do then is take it home to improve it. At home, they may work alone, with friends, or ask their parents for help, but since it is now all voluntary, there is peace and satisfaction instead of tension and fighting. (pp. 253-254)

A specific example of effective homework implementation was described in Bryan and Burstein (2004). Here a group of researchers developed a comprehensive strategy involving nine middle school students in general education classes who had learning disabilities and issues with homework completion. Participants were taught skills for doing homework independently. These skills included correctly recording assignments, planning and scheduling time to complete the assignments, identifying materials needed for completion, asking for help when needed, monitoring progress in completion, and self-rewarding for completion (Bryan & Burstein, 2004). The students in the study were taught the strategies for 30 minutes, four times a week for four weeks. The analysis indicated that the majority of participants learned the strategy for independently completing their homework. However, the strategies became immaterial when the assignments were beyond students’ academic levels (Bryan & Burstein, 2004). Thus, students can learn strategies to help them complete homework, but it is still important that the assignments are given at the appropriate level and explained well.

Kohn (2007) suggests using homework as an opportunity to involve students in decision-making provides better implementation success. Kohn (2007) states:

What is true of education in general is true of homework in particular. At least two investigators (Haberman 1995; Tschudin 1978) have found that the most impressive teachers (as defined by various criteria) tend to involve students in
decisions about assignments rather than simply telling them what they’ll have to do at home. (pp. 37-38)

When students are treated with respect and their input is valued, as long as the assignments are carefully planned, most children will rise to the challenge (Kohn, 2007).

**Feedback and Consequences**

Teachers should not only assign homework at instructional levels appropriate for students’ skills, but also provide positive consequences for homework completion. Homework policies should be clear and have consistent consequences (NREL, 2005). In a book discussing the enhancement of student achievement, Danielson (2002) emphasizes the importance of teachers distinguishing between completion and effort. Placing emphasis on quality of work (rather than solely on completion of work) could prevent students from getting in the habit of either entirely not doing homework, or completing it without gaining any understanding. The author suggests this may be due to poor instruction, lack of clarity about the assignment, or other outside factors negatively affecting the students (Danielson, 2002). The end result is still that the homework is not completed, or the purpose of the homework is not realized. A reasonable policy for this problem would be to ask students to document what they have done before giving up on the homework assignment entirely. For example, they can document what strategies they have tried, questions they have, or people they asked for help. Danielson (2002) concludes such a policy sends the message that perseverance and resourcefulness are important. Feedback and consequences should not always be determined by a check-off or grade system, but rather with a model in which students explain and explore with one another what has been completed, specific struggles, and new questions that arose (Kohn,
2007). Haberman (1995) observed, homework in the best classrooms “is not checked – it is shared.”

The teacher should also provide appropriate and timely feedback or provide time for appropriate sharing (NREL, 2005; Kohn, 2007). To be effective, the feedback should help correct misunderstandings. Timely feedback improves student learning (NREL, 2005). One set of studies discussed in Marzano et al., (2001) found that the effects of homework vary greatly, depending on the feedback a teacher provides. Providing feedback on homework serves to enhance student achievement. Students complete more homework when teachers make it central to course work, collect it routinely, and spend class time reviewing it (Butler, 2001). Asking students to continue working on a task until it is completed and accurate enhances student achievement (Marzano et al., 2001).

Christopher (2008) found that using homework as a valuable formative assessment can greatly enhance student performance and success on summative assessments. When homework is used as a formative assessment, students get many chances to practice, get feedback, and improve. Homework then becomes a safe way to try out or practice a skill without penalty. In using homework as formative assessment, the teacher still collects and comments on the work, but does not set any grade weight on the homework. In O'Connoer's study (as cited in Christopher, 2008), it was found that by eliminating homework as an actual grade, students' overall grades more accurately reflected their academic performance and understanding.

In summary, the teacher's role in homework design (including the factors of time, knowledge of the specific skills and content being addressed, and the provision of feedback) all require communication between student and teacher. The purpose and goals
of homework should be made known to all students. Ideally, if students are clearly given a purpose for the homework, they should succeed at meeting the goal of the homework: to deepen their understanding and skills relative to the content for the class (Bryan & Sullivan-Burstein, 1998).

**School-Wide Involvement in Effective Homework**

As data-driven school improvement is implemented in districts across the country, effective administrators and teachers must continue to make effective decisions based on accurate information in the classroom (Johnson, 1997). Homework can be a central component of continuous improvement in the classroom by involving students in Classroom Data Centers and Classroom Data Folders (Marino & Martin, 2008). Data folders are a way for teachers, students, and parents to keep track of each individual student's performance. As stated by Marino and Martin (2008), "Students take ownership, accountability and responsibility for their own learning by setting individual goals and then tracking their own performance to determine their progress" (p.1). Through a graphing homework completion strategy, students can keep track of their homework completion as one of their individual or class goals. Student can then use the data collected on homework completion to show at student-led conferences throughout the year (Bryan & Burststein, 2004; Marino & Martin, 2008). According to Glazer and Williams (2003) achievement in academic success can be attained through giving students a more active roll in the classroom specifically documentation of their success with homework completion and other class work can be an effective means to achieve success.
Traditionally, data collected in schools has only been used to assess student performances, but data collected on homework completion can also be used as a way for teachers to continually assess the homework they assigned (Johnson, 1997). By becoming a reflective teacher and constantly using assessment of teaching practices, students will benefit and ultimately be more successful (Black, 1996). Routine evaluation of management skills, individual learning styles, and homework routines that may affect student achievement are also rarely assessed (Johnson, 1997). Through including goals for homework completion as well as documentation of homework successes and struggles, the students and teachers can use the data to make better choices for continued success (Black, 1996; Glazer & Williams, 2003).

Policies and Procedures

School homework policies developed in partnership with students and parents is a good starting point for effective homework practices, especially if these policies provide a framework explaining the philosophy of homework, the important role of parents in the process, and the mechanics of homework practices (Coutts, 2004). It is in the best interest of schools to set guidelines for effective homework practices and implement communication policies for teachers to connect with families (Van Voorhis, 2004).

Researchers recommend professional development time should be allocated for teachers to discuss and learn about the key parts of effective homework design, implementation, and completion (Bryan & Burstein, 2004; Cooper et al., 2006). Discussion specifically about student time spent on homework, the purposes of homework, school-wide homework policies, and the design of interactive homework activities should take place between all teachers on a school-wide and even district-wide
level. The impact of in-service training and professional development of teachers would be to increase knowledge and strategies for using homework. Teachers should be asked to self-assess their practices, or explore teacher-student collaboration within and across grades and subjects (Bryan & Burstein, 2004). The relationship between time spent on homework and/or difficulty (as reported by students) with rates of completion should be used to adjust homework assignments accordingly (Bryan & Burstein, 2004). School-wide policies should be implemented to create developmentally appropriate homework assignments and methods. A rubric could be created to evaluate the homework creations before given to the students to be certain that it is developmentally appropriate, the purpose has been established, and the amount given is within the appropriate perimeters. Such time investments would likely have a large effect in the quality of the homework experience for teachers, students, and families (Bryan & Burstein, 2004).
Conclusions and Recommendations

The purpose of writing this literature review was to examine the studies and research of the best practices and most effective implementation of homework in the middle school classroom. In this final chapter, I will discuss my findings and make recommendations for what I have found to be effective homework practices for middle school students.

Conclusions

Homework plays a critical, long-term role in the development and success of middle school students (Bempechat, 2004; Cooper, 2007; Gill & Schlossman, 2004; Muhlenbruck et al., 2000). This literature review examined the ways adolescents, parents, teachers, and schools can effectively use homework as a vital means by which students can receive the education they need. The analysis of literature revolved around three guiding questions that are summarized below:

1. How can homework be an effective teaching tool, a useful communication strategy, and a beneficial learning experience for adolescent students?

- Homework must be linked directly to the curriculum (Battle-Bailey, 2003; Cooper, 2007; Cooper et al., 2006).
- Homework should be carefully designed to reinforce classroom learning and diagnose individual student’s progress and difficulties (Trautwein & Ludtke, 2007).
- Interactive homework, homework that purposely includes a requirement for home interaction, is a positive way to encourage a strong connection between school and home (Corno, 1996; Epstein & Van Voorhis, 2001; Van Voorhis, 2004)
• The time a student is expected to spend on homework should be adjusted depending on the age, skill, and background of the student (Cooper, 2007; Cooper & Valentine, 2001).

• Regular communication and clear guidelines must be enforced by administrators and teachers to offer more guidance to parents about the expectations of homework (Cooper et al., 2006; Van Voorhis, 2004).

2. What role does parental involvement play in effective homework practices?

• Parents should be active in the homework process: communicate, monitor, and support (Battle-Bailey, 2006; Cooper et al., 2000; Eccles & Harold, 1996; Hoover-Dempsey et al., 2001; Kreider et al., 2007; Tonn & Wallheriser, 2005; Xu & Corno, 2003).

• Parents need to establish routines to help their child develop effective self-regulation skills and be successful with homework (Xu & Corno, 2003; Zimmerman & Kitsantas, 2005).

• Communication from the school, teacher, and child must be in place for effective parental involvement (Battle-Bailey, 2006; Epstein & Van Voorhis, 2001).

3. What role do teachers have in making homework an effective teaching practice?

• Teachers must clearly communicate the purpose and goal of the homework (Battle-Bailey, 2003; Bryan & Burstein, 2004; Chen & Stevenson, 1989; Cooper, 2007; Cooper et at., 2000; Epstein & Van Voorhis, 2001; Trautwein & Ludtke, 2007).
• Teachers need to provide feedback for the homework, although it may or may not be assigned a grade (Cooper et al., 2006; Kohn, 2007; Marzano et al., 2001).

• Teachers may adjust and adapt homework assignments to fit student’s different interests and capabilities (Epstein & VanVoorhis, 2001; Kohn, 2007).

Recommendations

Homework remains a central part of the school curriculum that affects students, teachers, and families. Despite this reality, too little attention is paid to homework design, parental involvement, and invested effort by the students. As stated by Marzano and Pickering (2007):

"[The answer for the age-old homework debate] is certainly not to wait until research ‘proves’ that a practice is effective. Instead, educators should combine research-based generalizations, research from related areas, and their own professional judgment based on firsthand experience to develop specific practices and make adjustments as necessary... Educators can develop the most effective practices by observing changes in the achievement of the students with whom they work every day" (p.79)

In my opinion, Marzano and Pickering make a profound point that summarizes my literature review well. The research on effective homework varies greatly; many of the recommendations made by researchers must be applied only with teacher’s professional judgment taken into account.

Teacher Practices

My recommendation to teachers is to take the time to personally design homework to match the curriculum that is being taught. Too many times prefabricated
worksheets are used in place of individualized, quality designed work. Students are falling victim to homework that doesn’t match what is being taught in class, therefore, missing the overall point and meaning of the homework. I strongly recommend teachers start the design of homework with an essential goal and purpose that can be clearly communicated to the students and their families. Teachers must think about the purpose, format, grading, and ways of engaging the students in order to design homework that is effective (Epstein & Van Voorhis, 2001). With the purpose in mind, the homework should be taken seriously by the students, and the results of the homework should pay off for everyone. As Van Voorhis (2004) made clear, homework should be designed to give each student the opportunity to participate and demonstrate understanding of the topic taught in class that day. This may mean a different homework assignment for each class or even each student depending on what was discussed in class – be flexible with what is assigned.

In addition, I also recommend that teachers are flexible with how homework is graded and recorded. Teachers should provide appropriate and timely feedback that helps students correct misunderstands. Through the research, I don’t feel homework should be used as a way to help or harm the student’s grade. Rather, homework should be used as a formative assessment and communication tool that helps both the student and teacher better understand what is understood and what needs to be re-taught.

School-Wide Policies

By completing this research, I believe I will be able to help my administrators and colleagues understand what needs to be done to have effective homework policies throughout our school. When I hear teachers complain about homework not being
completed by students or feeling frustrated by the amount of time spent correcting homework, I am able to tell them what the research says and offer suggestions to better implement strategies for success. Homework can be a successful tool for adolescents through their middle school years (Cooper, 1989; Cooper et al., 1998; Trautwien, 2007). With the proper policies in place, our school can show the success throughout. I recommend our school create a homework policy that includes requirements for communication with parents. I also think the policy should include guidelines for the appropriate time and amount of homework assigned at the middle school level. I do not feel it is necessary to have any specific amount or time listed in the policy, but I do feel it is important to educate the staff on what the research says is appropriate for young adolescents. If these policies are set in place at the beginning of the year and professional development time to design homework is offered, more teachers will find homework as a valuable tool in the education of the students in their care.
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