Graduate Research Papers   Graduate College

2009

The impact of homework on academic achievement of diverse learners

Jed Batterson

University of Northern Iowa

The impact of homework on academic achievement of diverse learners

Abstract

Homework impacts the academic achievement of diverse learners. A student's learning disabilities, race, gender, socioeconomic status, and age affect the student and parents' perceptions of homework, as well as the efficacy of homework in improving student achievement. Politicians have placed great emphasis on the importance of the American education system staying competitive globally. This places pressure on both teachers and parents to ensure the success of students. Parents and educators struggle over the purpose of homework, what time commitment homework should require, and maintaining adequate communication between home and school. Because homework demonstrates a significant impact on student achievement, this paper provides teachers and parents with a review of the literature related to homework in order to identify some best practices in implementing a successful homework program.

THE IMPACT OF HOMEWORK ON ACADEMIC ACHIEVEMENT

OF DIVERSE LEARNERS

A Graduate Review

Submitted to the

Department of Curriculum and Instruction

In Partial Fulfillment

Of the Requirements for the Degree

Master of Arts

UNIVERSITY OF NORTHERN IOWA

by

Jed Batterson

July 2009

This Review by: Jed Batterson

Titled: The Impact of Homework on Academic Achievement of Diverse Learners

has been approved as meeting the research requirement for the

Degree of Master of Arts.

July 29 2009
Date Approved

Lynn Nielsen
Graduate Faculty Reader

_7/29/09_
Date Approved

Timothy G. Weih
Graduate Faculty Reader

_8-3-09_
Date Approved

Jill M. Uhlenberg
Head, Department of Curriculum and Instruction

Table of Contents

Abstract

Homework impacts the academic achievement of diverse learners. A student's learning

disabilities, race, gender, socioeconomic status, and age affect the student and parents'

perceptions of homework, as well as the efficacy of homework in improving student

achievement. Politicians have placed great emphasis on the importance of the American

education system staying competitive globally. This places pressure on both teachers and parents

to ensure the success of students. Parents and educators struggle over the purpose of homework,

what time commitment homework should require, and maintaining adequate communication

between home and school. Because homework demonstrates a significant impact on student

achievement, this paper provides teachers and parents with a review of the literature related to

homework in order to identify some best practices in implementing a successful homework

program.

Introduction

Homework is an assigned task students do at home. Educators and families have seen the use of homework rise and fall for over a century. Politicians began placing greater emphasis on student achievement following the Soviet Union's launch of the spy satellite, Sputnik. As global competition from Japan and Europe have increased, the push for a more effective education system, leading to higher student achievement, has grown (Cooper, 1989).

Homework is used in classrooms from kindergarten through twelfth grade and throughout all curricula. The application of homework varies greatly. Time required to complete homework differs between grade levels, subject areas, schools, and teachers (Cooper, 1989). It is used for a wide-range of purposes. Rehearsal of classroom content is a common style of homework given to students as well as providing homework to create a stronger tie between the student and the learning task. Teachers often use homework to try to instill a sense of work ethic and citizenship and at times utilize homework punitively to correct student behavior. Homework can enhance communication between parents, students, and teachers. Homework encourages students to share tasks with their parents, giving an opportunity for discussion. Teachers share classroom activities with parents by sending some aspect of the learning home with the student (Epstein, 1988). Homework's application is far reaching and demonstrates a wide-range of goals.

Tackling and completing homework has a strong connection to motivation and self-regulation. A student's sense of self-efficacy directly affects the ability to accomplish homework tasks. The successful completion of assignments not only includes a student's skills, but the belief in being able to complete the task (Bandura, 1993). Students may feel success is rooted in ability, effort, or plain luck (Weiner, 1994). A student's belief in their ability is important to homework completion and effectiveness.

The effectiveness of homework has come under intense scrutiny for over a century. Cooper (1989) and Trautwein, Köller, Schmitz, and Baumert (2002) reported that positive impacts depend on grade level. In a large study conducted by Cooper (1989) high school students saw an increase in grades with the use of homework as an instructional tool compared to students who did not do homework. The correlation between homework and achievement decreased as grade level decreased. Homework demonstrates a significant effect dependent upon the age of the student

Homework presents a challenge to many students. Students with disabilities, minority students, boys and girls, and students of differing socioeconomic status tend to perform differently. Students with disabilities are more prone to homework difficulties than students with no disabilities (Epstein, Polloway, Foley, & Patton, 1993). Many minority students come to school with cultural backgrounds different from their teachers. Instruction usually differs from students' style of communication, which causes a hindrance to learning. Assessments tend to be biased against minority students because the tests are designed for students of the white, middle-class (Davis & Golden, 1994). Achievement between boys and girls can vary based on subject areas (Eccles, Adler, & Meece, 1984).

Children of low socioeconomic status (SES) also face academic challenges. They might live in a single-parent home. These parents are likely to have low-wage jobs requiring longer work hours. "Low SES is now and has been a reliable predictor of poor reading skills. Children who lack reading readiness at school entry experience more difficulty learning to read…[therefore, it] must be borne in mind that many children whose language and literacy skills are weak at the outset of schooling become successful readers. A majority, however, do not" (Snow, Burns, & Griffin, 1998, p. 131). Along with the potential for literacy difficulties,

children might have less time with the parent, therefore, less assistance with homework (Kravlovec & Buell, 2000). Considering the potential relationship between SES and the effectiveness of homework, further investigation may be warranted.

Statement of the Problem

The purpose of this study is to investigate the impact of homework on the academic achievement of diverse learners in grades K through twelve.

Research Questions

This paper reviews the literature related to homework and its impact on academic achievement of diverse learners. It will address the following five questions:

1. What is the purpose of homework?

2. How do motivation and homework interact?

3. How does homework impact the achievement of a diverse range of students?

4. At what grade levels is homework most effective for improving student achievement?

5. What aspects of homework do teachers and parents need to address to maximize the impact of homework?

Definitions

Many topics can be discussed when addressing the issue of homework. The following definitions are provided for the topics covered to standardize the language used in this paper.

1. *Achievement* – Achievement is "the quality or quantity of a student's work" (Merriam-Webster, 2008, p. 10).

2. *Homework* – Cooper (1989) says homework is school work assigned by the teacher but is completed in the absence of a teacher.

3. *Motivation* – Motivation has the qualities of "energizing or activating

behavior...directing behavior...or regulating persistence of behavior" (Ford, 1992, as

cited in Alderman, 2008).

4. *Self-regulated learning* – "Students [have] active participation in their own learning:

including regulation of cognitive, motivational, and metacognitive components"

(Alderman, 2008, p. 292).

5. *SES* – Also known as socioeconomic status, considers "an individual's income,

occupation, education, and prestige in society" (Slavin, 2003, p. 104)

Significance of the Study

An analysis of the literature will clarify the connections between homework assignments

and diverse learners and will provide guidance to educators as to the approach they should

implement to improve student achievement. Since homework is to be completed separate from

the support of a student's teacher, the child must use other resources to accomplish the tasks.

While some children come from nuclear families where two parents are available to assist them

with homework, other children come from a variety of family structures. Parents' work

schedules, the number of children in the home, the presence of extended family members,

economic status, and a host of other characteristics affect the degree to which children will be

successful with schoolwork assigned at home.

Methodology

This section will examine the method to locate sources, the method to select sources, the

procedures to analyze sources, and the criteria to include literature for review.

Method to Locate Sources

The Rod Library of The University of Northern Iowa, Cedar Falls, Iowa has multiple

database search tools, Panther Prowler and UNISTAR, to locate articles and books available on

campus or articles accessible online from other institutions. Other sources include books in the Rod Library and peer reviewed articles available either online or in the aforementioned library. The following search terms were used in identifying potential references.

1. *Homework and review*

2. *Homework and socioeconomic*

3. *Homework, low, socioeconomic*

4. *Motivation*

5. *Disabilities*

6. *Race*

Method to Select Sources

Articles published more than thirty years ago were mostly eliminated. However, some studies were included to identify patterns, or the absence of, in research supporting or refuting the effectiveness of the homework in relation to student achievement. Various books written specifically on the topic of homework were included. Some current textbooks centered on educational psychology, motivation, and achievement were also included.

Procedures to Analyze Sources

Several steps were implemented to analyze the sources. Using the above internet databases articles were categorized based on keywords searched. Then articles were summarized into annotated bibliographies to glean relevant information for review. These included a summary, identification of study's purpose, hypothesis, design, and results. A bibliography of references was documented for future searches and summarization.

Criteria to Include Literature

Peer reviewed journal articles, textbooks, and review articles published after the year 1990 were typically included. In a few cases, older articles were used because they were considered classic studies.

Literature Review

A review of the literature identifies homework as a significant influence on student achievement. The following section reviews current and relevant literature as homework applies to purpose, motivation, diverse student populations, age, and teacher and parental impact on the efficacy of homework.

Purposes for Homework

Educators and families have seen the significance of homework rise and fall dating back to the 1920s (Cooper & Valentine, 2001). Political pressures have increased the emphasis on student achievement and creating students prepared to compete in the global market (Cooper, 1989). Several studies signal a connection between homework activities and academic achievement (Auerbach, 1989; Battle-Bailey, 2004; Cooper & Valentine, 2001; Epstein, 1988; Hoover-Dempsey, Battiato, Walker, Reed, DeJong, Jones, 2001; Keith, 1982; Warton 2001). Cooper and Valentine (2001) and Epstein (1988) found a positive correlation between homework completion and academic achievement among high school students. Cooper (1989) compiled data from 17 studies finding improved student achievement in classrooms where homework was utilized. This effect was found to be greater as grade level increased. While Cooper's (1989) research showed homework had limited impact on student achievement in the elementary grade levels, many elementary teachers continued to assign work to prepare students for the rigors of secondary education (Epstein, 1988). Epstein (1988) affirmed homework provides opportunity to

develop growing responsibilities and self-regulation. While little impact on achievement is demonstrated, the use of homework with elementary students still shows potential in providing opportunities for individual student development.

Some studies have failed to demonstrate a significant relationship between homework and achievement. Cooper, Lindsay, Nye, and Greathouse (1998) and Tymms and Fitz-Gibbon (1992) identified no meaningful impact of homework on standardized test scores. A less controlled study surveyed students' time spent on homework and found no impact on grades with increases in homework (Farrow, Tymms, & Henderson, 1999).

Several criticisms have been levied against homework. The effectiveness of homework in improving student achievement has been brought into question. Students who are assigned low cognitive tasks that require little parental interaction have minimal academic effectiveness (Warton, 2001). This seems logical as Epstein (1988) discovered a very strong correlation between achievement and parental expectations for the students. Epstein (1988) and Trautwein et al. (2002) also found that as time spent on homework increases, achievement tends to decrease. It must be noted that this is a correlation study and not a causative analysis. Epstein (1988) also found reading and math achievement scores decreased when parent assistance increased. The author suggested that this correlation is reflective of either a low performing student whose parents recognized the child's need for help or a teacher who reached out to parents for assistance with additional learning. The researcher does not suggest that this data indicated parental help lowered student achievement.

Criticisms have also been made against the methodologies and biases present in the studies of homework. Non-congruent comparisons and poor outcome measures draw into question the validity of current research. Authors have concluded that teachers might allocate more

homework to the advanced content classes, typically comprised of higher achieving students, creating a false relative increase in time spent on homework as compared to students in less advanced content courses (Cool & Keith, 1991; Cronbach & Webb, 1975). Cronbach and Webb (1975) claimed some researchers fail to acknowledge higher achieving students might finish their homework faster, therefore, creating the façade of a negative correlation between time spent on homework and grades as compared to students of lower achievement in the same courses. Cooper et al. (1998) suggested using grades to evaluate achievement might be a biased representation of achievement.

While the significance of homework showed some variability in the research, the preponderance of data showed homework had at least some significant impact on improving student achievement. The criticisms demonstrate the limitations of correlation. Studies cannot easily conclude whether increased homework time is truly a cause of decreased achievement or whether decreased achievement ability leads to longer homework times. Researchers tend to suggest it is the latter.

Motivation and Homework

Student motivation has been shown to impact student achievement. Ames (1992) described motivation at its peak when purposeful exercises include a moderate challenge, when students are part of the decision making process, and when they receive feedback regarding their work. Therefore, an involved student is vital to academic success (Hoover-Dempsey et al. 2001; Newmann, 1992). "Positive attitudes are good indicators of day-to-day success in school, commitment to school goals, and the likelihood of staying in school" (Epstein, 1988, p. 13). Warton (2001) added parents and teachers should keep students informed as to the function and merit of the work in order to increase student motivation.

One approach to motivate students with their work is to create authentic tasks. Battle-Bailey (2004) recommended teachers use a constructivist approach so children self-regulate their activities. Burns, Roe, and Smith (2002) suggested several constructivist activities teachers could use. For example, students could be assigned to add up the cost of items from a catalog. Another activity would involve students in writing a notice of a lost or found pet or item. When students see an application for the task, their motivation to complete the task increases.

Self-regulation is a crucial component to successful homework completion (Battle-Bailey, 2004; Epstein, 1988). Pintrich (2003) claimed students must be engaged, focused and reflective on their objectives, and negotiate their personal convictions and interactions with others. Zimmerman and Schunk (1989) identified forethought, performance control, and reflection as an interconnected framework in which self-regulation occurs. Forethought is a student's belief that goals are attainable; performance control is the act of staying on or returning to the task; reflection is the self-assessment of performance relative to a goal, which returns to forethought to continue self-regulation.

A predictable sequence can be observed while a student successfully self-regulates during the completion of an assignment. The student demonstrates a belief in their ability to complete the work by the deadline, maintains focus on the task either continuously or intermittently, and reevaluates the progress towards attaining the goal. This process is repeated until the assignment is completed on time.

In another study, Olympia (1994) reported a group of sixth graders struggling with homework accuracy and completion received additional support in bolstering their self-management. Notable gains in quality of work and completion were observed as a result of this intervention.

Distractions can derail completion of homework. Benson (1988) cited sixth graders found television, phones, people, and other household noises diverted their attention from their studies. Alderman (2008) added cell phones and other electronic devices to the list. In response to these distractions, Guthrie, Van Meter, McCann, Bennett, and Poundstone (1996) found that students identified the need to set time limits for themselves. Students found a designated place to do homework, prioritizing work to be done, and knowing what to do if they experience difficulties while studying helpful in reducing distraction (Guthrie et al., 1996). Not only do students need to be motivated to complete homework, but they also need to have an appropriate surrounding environment and the skills to complete the task.

Effect of Homework on Achievement of Diverse Learners

The diverse learner comes to school with a different set of abilities and experiences. This creates a challenge for educators and parents in utilizing homework effectively to improve the achievement of these subsets of learners. The following section describes the impact of homework on the academic achievement of students with disabilities, minority students, boys, girls, and students of low SES.

Learning disabilities. Students with learning disabilities are more susceptible to homework problems than students with no disabilities (Epstein et al., 1993). As these students move through school, they are more likely to encounter difficulties with homework since teachers tend to assign more work as students get older (Schumaker & Deshler, 1988). Children with learning disabilities invest quadruple the time to finish homework compared to other students with similar tasks (Baumgartner, Bryan, Donahue, & Nelson, 1993). Students with disabilities have increased difficulties conducting homework activities. Polloway, Epstein, and Foley (1992), as cited in Bryan, Burstein, and Bryan (2001) stated these students have problems

with organization of materials and time and with understanding directions after returning home to complete the work. The varying levels of abilities and the slower progression of academic attainment creates a difficult situation for students with disabilities.

Students with learning disabilities may have less support at home. Student demographics demonstrate that students with disabilities are prone to having both parents work outside the home and to have parents who are less educated (Bryan & Nelson, 1995; Deslandes, Royer, Potvin, & Leclerc, 1999). In analyzing the demographic data of their participants, Deslandes et al. (1999) found that 56% of students with disabilities had two or more siblings compared to 44% in the general population. It was also found that 69% of children with disabilities and 81% of students without disabilities came from two parent households. Both the educational level of parents, as well as the home make-up, adds challenges for students with disabilities as they perform assigned homework activities.

Homework has an impact on students' motivation. Pearl, Bryan, and Donahue (1980) reported high school students with disabilities feel more skepticism about their abilities and assume they are less successful. Pearl et al. (1980) concluded that academically unsuccessful students demonstrated a belief that their successes and failures were due to external factors rather than a personal lack of effort. The challenge is to help students with disabilities recognize and believe that their efforts directly affect their success and outcomes.

Teachers make adaptations and accommodations for students' with disabilities in order to increase their success with the homework tasks although this many times has dire social consequences. Students, with and without learning disabilities, strongly believed that there should be no differences in the homework assigned to disabled students compared to the general population. Creating modified homework for students with learning disabilities might eliminate

the opportunity for the student to work together with their peers because of the different assignments. Modification can cause resentment toward the exceptional students since the tasks are dissimilar (Vaughn, Schumm, Klinger, & Saumell, 1995). Students with disabilities need adaptation and accommodation to be successful in their assignments with consideration of the social and learning implications.

There are more than just social consequences to altered homework. When homework accommodations are created quickly, teacher directions are made in haste. This can easily cause unclear expectations and confusion about the content, process, and completion dates, and leave little or no time for student questions (Sawyer, Nelson, Jayanthi, Bursuck, & Epstein, 1996). For students who need modifications, clear expectations and directions are essential to foster success. Hasty attempts at providing accommodations can only add to the frustration and feelings of incompetence felt by students with learning disabilities.

Minority students. The minority student comes to the education setting with a different cultural background and worldview. Davis and Golden (1994) identified discrepancies between communication styles and expectations of mainstream, predominately middle-class educators, and minority children and their families. The authors conducted a survey in a predominantly African American kindergarten center in a mid-Atlantic state. Teachers in upper grade level buildings who received the center's students deemed them low achieving. School officials asked Davis and Golden to identify the problems. Researchers found teachers used mainstream tests and testing procedures that frequently identified minority students as deficient learners. The evaluations did not take into account the background experiences, language, or social norms of the student. Discrepancies between teacher expectations and student performance stifled academic growth. These discrepancies and reductions in academic growth were emphasized by

daily classroom routines, teacher perceptions, and teacher attitudes. In another study, Fehrman, Keith, and Reimers (1987) surveyed high school seniors. They found that ethnicity had little impact on grades, but nonwhite students spent more time on homework. Teachers often fail to recognize the challenges faced by minority students. What appear to be student deficiencies may be better understood as verbal and non-verbal miscommunication.

Achievement has been linked to racial and ethnic differences in student populations. Shernoff and Schmidt (2007) conducted a study of 586 high school students examining achievement and engagement. They found that African-American students demonstrated higher intrinsic motivation, engagement, and affect in class than white students. However, an inverse relationship was seen in student achievement. African-American students held lower grades than the white students. This relationship continued to be identified across several other races noting that Asian students demonstrated higher achievement but not higher engagement. The researchers cited several previous studies that have noted similar differences and seemingly "paradoxical" relationships between engagement and achievement for minority students while only white students showed the expected climb in achievement with climb in engagement. This phenomenon is not well understood and requires further study to fully comprehend its impact.

Gender. Some differences in achievement were noted regarding gender in high school seniors. In a large study by Fehrman et al. (1987), researchers found that female seniors had higher grades and spent more time on homework. Eccles et al. (1984) conducted a survey to determine the effects of attitudes of males and females toward English and math class enrollment. Males indicated a more positive attitude toward math than females, and females indicated a more positive attitude toward English than males. Eccles et al. (1984) also found that if students felt they were able to achieve in a subject area, they were more likely to attain higher

grades. While gender's affect on homework seems minimal, utilizing gender-guided preferences may give insight into ways of improving student achievement.

Socioeconomic status. The National Center for Educational Statistics (2007) stated forty-one percent of elementary and secondary students were eligible for free and reduced lunches in the 2006-07 school year. Socioeconomic status (SES) in families is generally defined by the parents' occupation, income, and education (Hauser, 1994). Children of low SES are a significant population of students who present unique challenges to teachers.

Some research suggests that differences in achievement exist between students of varying SES. Parental academic prowess has shown to be a predictor of student achievement. Epstein (1988) noted a positive correlation between parent's educational level and children's achievement level. In families where at least one parent has obtained higher education, children's academic achievement is higher than their counterparts in families where parents have not obtained higher education. She also identified a positive impact on academic performance when books and other educational materials are present in the home. The economic limitations of low SES families impede students' access to these home resources.

In another study, Zady and Portes (2001) studied low SES students and their mother's reading comprehension. Researchers looked at the relationship between the parent's reliance on rereading science assignment directions to assist children in completing homework and the child's results on the California Tests of Basic Skills. Mothers in the study were asked to read and understand the printed directions for a given assignment. They then surveyed the mothers to collect data regarding the homework experience. Zady and Portes inferred from the data that the frequent rereading of the assignment's directions by low SES mothers might be a result of her own lack of comprehension abilities. Because of the mother's difficulty understanding the

directions, she could not successfully direct her child in completing the assignment. Whereas, when parents of high achievers read the directions, they were able to comprehend the written directions and used detailed verbal cues to delegate the responsibilities over to the child rather than just rereading the written directions. This fostered independent, successful completion of the assignment by the child. High achieving students tend to perform on their own, whether it's because they can do it, believe they can do it, or are expected to do it.

Surprisingly, even with the strong correlation evident through these studies, Keith's (1982) large multi-factoral study of homework found no relationship between SES and high school achievement scores. He found SES did not have "an appreciable direct effect on grades…when ability, field, and study time were controlled" (p. 250). Lower achieving students of varying SES could elevate their performance through increasing time spent studying. While it would be easy to take this data and conclude that SES need not be recognized when considering student achievement, it must be remembered that low SES does represent an increased risk for low achievement ability (Snow et al., 1998).

Impact of Grade Level on Homework

Children in different grade levels have obvious differences in developmental needs. These differences can also be seen in the effect of homework on student achievement. Cooper (1989) compiled data from 17 studies and found that as grade level increased so did the impact of homework on student achievement. Despite the decreased effectiveness of homework, primary students are spending three times as much time on homework as they did thirty years ago in response to efforts to increase student achievement (Hofferth, 1998).

While secondary students seem to demonstrate a stronger correlation between homework and achievement, not all studies support this completely. Results of a study conducted by

Trautwein et al. (2002) examined seventh grade math classrooms in Germany. They found greater gains in achievement as low performing students increased time spent on homework. The gains for high achieving students were not as great and at times show a negative relationship with increasing homework time. The researchers concluded that increased homework time has the effect of closing the achievement gap. They also concluded from the data that shorter assignments were at least as good as longer ones. The researchers surmised that longer assignments caused a decrease in motivation. The authors point out that future studies might consider addressing the impact of homework frequency not just total time spent on homework.

Epstein, Munk, Bursuck, Polloway, and Jayanthi (1999) surveyed over 500 general education teachers asking for effective approaches in helping students with homework. The researchers found that elementary teachers perceive homework as an assisted activity, whereas secondary teachers view homework as an independent activity. Elementary teachers stated homework success could be assisted by student attendance at parent teacher conferences. In addition, they felt volunteers could be utilized to help students with homework activities during the day or after school. Middle and secondary teachers indicated students needed assistance being responsible for keeping track of their assignments. Parents should sign their assignment notebook and assist their child when needed.

The continually developing child progresses from dependence to independence. This can be seen in the homework argument. Elementary educators use a more assistive approach slowly relinquishing control to the student while increasing the amount of homework expected. This trend continues into secondary education with greater effects on student achievement.

Maximizing the Impact of Homework for Teachers and Parents

Parents and teachers have a significant effect on the efficacy of homework. There are many

techniques teachers and parents can implement to improve the impact of homework on student achievement. The following section discusses how parental involvement in homework effects students and how student diversity (students with learning disabilities, minorities, gender, and SES) can be addressed to improve a student achievement.

Parent involvement in homework. Homework provides an opportunity for time shared between child and parent(s) (Epstein, 1988). While teachers are responsible for students' education, students and parents play a valuable role in achievement (Auerbach, 1989; Keith, 1982). Parents of primary students tend to be more involved in their child's homework than they are with junior high and high school students (Epstein, 1988). Extended activities foster opportunities for parents to increase their involvement in their child's education and augment communication between school and home (Auerbach, 1989; Battle-Bailey, 2004; Epstein, 1988; Hoyle, 2005).

Teachers and parents exhibit different perception of the purpose and expectations of homework. Epstein and Becker (1982) surveyed teachers to gather their perspectives on parental involvement. Teachers claimed the most effective approach is when parents informally share skills that are different from teacher-introduced strategies. Epstein added teachers have a daunting task of inspiring parents to informally educate their children. Despite that, 70 percent of teachers surveyed supported recommending school-related activities to parents such as enrichment, games, and connections to real-world applications (Auerbach, 1989; Cole, John-Steiner, Scribner, & Souberman, 1978; Epstein & Becker, 1982). Bryan and Nelson (1995) reported discrepancies between teacher and parent expectations for children. Parents assume teachers insist student work is complete and will be assessed for accuracy. However, teachers tend to treasure students' efforts and are receptive to alternate scoring. A result is parents and

teachers tend to assign fault to the other for poor communication (Epstein, Polloway, Buck, Bursuck, Wissinger, Whitehouse, & Jayanthi, 1997, as cited in Bryan et al., 2001). Communication is a crucial component to making homework an effective educational tool.

Student achievement is moderately correlated with teacher-parent involvement (Epstein, 1988). Parents who are actively involved in school events, observe and interact with homework, and hold school in high regard tend to have children who achieve at a higher level (Epstein, 1984). Parent-teacher workshops are an opportunity to develop successful homework strategies. Teachers can encourage effective parental involvement improving achievement when particular approaches are implemented (McCarthey, 2000). Teachers should encourage parents to use reasoning with their child's homework to develop deeper thinking skills (Auerbach, 1989; Davis & Golden, 1994). Workshops can help parents better understand methods used at school and then practice them at home enhancing their child's overall educational experience.

Hoyle (2005) suggested parents implement a multi-step plan:

1. Stay in communication with your child and her classroom activities

2. Maintain basic school supplies

3. Make sure your child is staying on course daily

4. Clean out the book bag and organize it

5. Adjust plan to suit age appropriateness

6. Recognize your child's plight when she resists the work

7. Set specific daily, weekly, and long-term goals

8. Take periodic breaks

9. Stay positive

Hoyle (2005) suggested several tasks for children:

1. Accept a non-school related chore that fosters independence

2. Use self-talk to praise and redirect

3. Implement their own organization strategies (i.e. inventive note-taking)

4. Recognize signs when needing help

Learning disabilities. Parents play an important role in the academic achievement of students with disabilities. Bryan et al. (2001) found students with disabilities show more marked and consistent improvement in achievement when they do homework with someone else, such as a peer, teacher, or parent. Students significantly benefit from a strong and integrated support system for homework (Rosenberg, 1989). Callahan, Rademacher, and Hildreth (1998) studied at-risk middle school students and noted improvements in standardized math scores, homework quality, and homework completion when parents were actively involved in homework. An active parent becomes the partner, providing consistent support and guidance to a child with learning disabilities.

Minority students. Davis and Golden (1994) concluded that teachers needed to be aware of minority students' cultural background. Teachers must refrain from making quick judgments in determining a student's abilities because the transition to school, a mainstream system, can be difficult for minority students. Patience and flexibility can provide insight for the teacher and allow for effective communication helping to set expectations for students and their parents. Auerbach (1989) found that family background impacts achievement suggesting that teachers might consider conducting an interest survey to learn more about families' home and community. This information can then be utilized when assigning homework to foster engagement. Students should be directed to make connections between their environment and homework to increase understanding of school content as it applies to their community.

Gender. Limited recommendations are made in the literature regarding practice related to homework and gender. There were differences identified in academic performance between genders, but the causes appear to be based more on motivation than gender. Utilizing individual strengths and interests may be an effective way of increasing achievement (Eccles et al., 1984).

Socioeconomic status. Home is sometimes not a supportive place for low SES students to complete homework. Homework can still be beneficial to this population by making extra resources available to students. Payne (2005) suggested offering tutoring sessions at the end of the school day to help support student achievement. She also suggested teachers send home a video recording at the beginning of the year explaining the class expectations, helping to align parental and teacher expectations of homework. A video also helps to bridge the literacy gap that may exist if parents are not well educated. Shockley, Michalove, and Allen (1995) recommended teachers send resources home with students. Teachers should encourage students to read with their parents, discuss, and take notes to share in school for the purpose of identifying relationships between home and school. Quality communication and clear expectations are essential to creating a framework for students to experience success with homework. Teachers need to help students of low SES to create connections between home and school and help the child develop a support network to bolster their academic achievement.

Conclusions and Recommendations

Controversy has surrounded the purpose of homework for over a century. Politicians want a rigorous education system to compete with other students on a global level (Cooper, 1989). Parents and teachers want children to succeed. Homework is one approach with potential to improve student achievement. Motivation plays an important role in achievement as well. Authentic activities engage students in learning and lead to higher achievement (Battle-Bailey,

2004; Hoover-Dempsey et al., 2001; Newmann, 1992). Self-regulation is necessary for students to begin, continue, and finish homework (Zimmerman & Schunk, 1989). Teachers need to have all students engaged in learning while at school to effectively prepare them for homework. If teachers are going to assign homework, activities should be meaningful and foster connections between school concepts and the students' environment.

Teachers should consider the needs of diverse learners. A student's learning disabilities, cultural and socioeconomic background, gender, and age affect how they experience learning and homework. Each group has special needs that when accommodated make homework effective in improving achievement.

Students with learning disabilities should be encouraged to complete homework with someone else, such as a peer, teacher, or parent (Bryan et al., 2001). Accommodations must be carefully planned and administered, considering both the academic and social needs of the student. Extra time may be warranted for the completion of tasks. Realistic expectations need to be set for achievement, and the hard work of the student should be celebrated to increase a student's intrinsic motivation.

Another opportunity to increase achievement is to improve communication of expectations between parents and teachers. Accommodations and modifications of assignments can create confusion as to directions and expectations of homework. Teachers should communicate regularly with parents to set clear goals for the child. Children with learning disabilities may have less access to assistance at home due to a higher frequency of multiple siblings and single parent households. Teachers should provide assistance to these students through peer help, volunteers, or teachers to ensure they develop a support system to foster success.

Many minority students come to school with cultural backgrounds different from teachers. Instruction is usually provided in a different style from the established communication pattern of the student. Assessments tend to be biased against minority students because the tests are designed for students with a middle-class schema. Teachers must refrain from making quick judgments in determining a minority student's abilities. The transition to school, a mainstream system, can be difficult for minority students. Patience and flexibility can provide insight for the teacher and allow for the establishment of effective communication and expectations. Homework can be an effective method to help students create connections between school and home making both environments meaningful to student learning. Family interest surveys or meetings with parents can be effective tools to understanding the background of minority students. Teachers should align classroom and homework activities with family's background, enhancing the student's sense of acceptance in the classroom environment as well as the child's engagement in homework activities.

Student achievement can vary between boys and girls. High school girls spend more time on homework and have higher grades than boys (Fehrman et al., 1987). Girls prefer English classes while boys favor math courses (Eccles et al., 1984). While some gender differences have been identified, their impact on homework and student achievement appears to be minimal. These differences can be used to foster engagement, but educators must encourage boys and girls to develop positive attitudes toward any subject area and expand their academic possibilities (Epstein, 1988).

Students of low socioeconomic status have unique achievement challenges. Students of low achieving parents tend to be low achieving themselves. Economic and employment constraints can create an environment where minimal support for academic efforts may exist.

This includes time as well as the availability of education resources in the home (Epstein, 1988). Low SES students have a higher incidence of low achievement (Snow et al., 1998). Homework can help students identify the relevance of school activities to their lives. The lack of support experienced by low SES students requires teachers to implement strategies to create an academic support system. Similar to students with learning disabilities, low SES students can benefit from volunteer assistance during and after school as well as peer alignment for homework completion.

The parents' lack of previous academic success may make them feel ill equipped to help their child. Teachers can help by setting clear expectations for homework and its purpose. Creating open communication allows the teacher to provide guidance to parents on helping with their child's homework as well as provide opportunity for parents to ask questions. Homework is a tool to help create academic connections between classroom and home environments, helping low SES students meet or exceed the expectations of the middle class oriented education system.

Homework is used in classrooms at all grade levels. The effectiveness of homework at various grade levels has come under intense scrutiny. Cooper (1989) and Trautwein et al. (2002) reported that homework has positive impacts on student achievement. While not detrimental to elementary students, high school students seem to benefit the most from homework. Elementary students appear to reap the least. The elementary traditions of escalating homework intensity appear to be rooted less in student achievement and more in a sense of need to prepare students for the rigors of secondary education. Homework in the elementary grades serves a purpose of connecting classroom learning to students' home and community environments, but educators must note homework reaches diminishing returns with increases in time spent.

Homework, while controversial, holds a significant place in fostering achievement in students with diverse backgrounds. Homework has been used for many purposes, but is best used

as a practice of creating connections between school, home, and community. Teachers must remember that rote rehearsal has limited achievement benefits. Educators must recognize that within the diverse learner's home environment there are variable levels of assistance, knowledge, and resources available. Students may be left without assistance to complete homework successfully, creating insecurity, frustration, and a lack of motivation. Homework should be challenging, yet attainable by all students. Homework provides the student an opportunity to demonstrate and apply what they know and gives the teacher a window into the student's world.

References

Alderman, M. K. (2008). *Motivation for achievement*. (3rd ed.). New York, NY: Routledge.

Auerbach, E. (1989). Toward a social-contextual approach to family literacy. *Harvard Educational Review, 59(2)*, 165-181.

Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84(3)*, 261-71.

Bandura, A. (1993). Perceived self-efficacy and cognitive development and functioning. *Educational Psychologist, 28(2)*, 117-148.

Battle-Bailey, L. (2004). Interactive homework for increasing parent involvement and student reading achievement. *Childhood Education, 81(1)*, 36-40.

Baumgartner, D., Bryan, T., Donahue, M., Nelson, C. (1993) Thanks for asking: Parent comments about homework, tests, and grades. *Exceptionality, 4(3)*, 177-185.

Benson, R. (1998). Helping pupils overcome homework distractions. *The Clearing House, 61*, 370-2.

Bryan, T. & Nelson, C. (1995). Doing homework: Perspectives of elementary and middle school students. *Journal of Learning Disabilities, 27(8)*, 488–499.

Bryan, T., Burstein, K., & Bryan, J. (2001). Students with learning disabilities: Homework problems and promising practices. *Educational Psychologist, 36(3)*, 167-180.

Burns, P. C., Roe, B.D., & Smith, S.H. (2002). *Teaching reading in today's elementary schools*. (8th ed.). New York, NY: Houghton Mifflin.

Callahan, K., Rademacher, J. A., & Hildreth, B. L. (1998). The effect of parent participation in strategies to improve the homework performance of students who are at risk. *Remedial and Special Education, 19(3)*, 131–141.

Cole, M., John-Steiner, V., Scribner, S., & Souberman, E. (Eds.). (1978). *Mind in society: The development of higher psychological processes*. (14th ed.). Cambridge, MA: Harvard University Press.

Cool, V. A. & Keith, T. Z. (1991). Testing a model of school learning: direct and indirect effects on academic achievement. *Contemporary Educational Psychology, 16,* 28-44.

Cooper, H. (1989). *Homework*. (O'Connell, R., Ed.). White Plains, NY: Longman.

Cooper, H., Lindsay. J., Nye, B., & Greathouse, S. (1998). Relationships among attitudes about homework, amount of homework assigned and completed, and student achievement. *Journal of Educational Psychology, 90(1),* 70-83.

Cooper, H., & Valentine, J. (2001). Using research to answer practical questions about homework. *Educational Psychologist, 36(3),* 143-153.

Cronbach, L. J., & Webb, N. (1975). Between class and within class effects in a reported aptitude *x* treatment interaction: A reanalysis of a study by G. L. Anderson. *Journal of Educational Psychology, 67(6),* 717 –724.

Davis, K. A., & Golden, J. M. (1994). Teacher culture and children's voices in an urban kindergarten center. *Linguistics and Education, 6(3),* 261-287.

Deslandes, R., Royer, E., Potvin, P., & Leclerc, D. (1999). Patterns of home and school partnership for general and special education students at the secondary level. *Exceptional Children, 65(4),* 496–506.

Eccles, J. S., Adler, T. F., & Meece, J. L. (1984). Sex differences in achievement: A test of alternate theories. *Journal of Personality and Social Psychology, 46(1),* 26–43.

Epstein, J. L. (1984). School policy and parent involvement: Research results. *Educational Horizons, 62(2),* 70-72.

Epstein, J. L. (1988). *Homework practices, achievements, and behaviors of elementary school students*. Baltimore, MD: Center for Research on Elementary and Middle Schools, Johns Hopkins University. (ERIC Document Reproduction Service No. PS 017 621).

Epstein, J. L. & Becker, H. J. (1982). Teachers' reported practices of parent involvement: Problems and possibilities. *The Elementary School Journal, (83),2*, 103-113.

Epstein, M. H., Munk, D. D., Bursuck, W. D., Polloway, E. A., & Jayanthi, M. (1999). Strategies for improving home-school communication about homework for students with disabilities. *Journal of Special Education, 33(3),* 166-176.

Epstein, M. H., Polloway, E. A., Foley, R. M., & Patton, J. R. (1993). Homework: A comparison of teacher's and parents' perceptions of the problems experienced by students identified as having behavrioral disorders, learning disabilities, and or no disabilities. *Remedial and Special Education, 14(5),* 40-50.

Farrow, S., Tymms, P., & Henderson, B. (1999). Homework and attainment in primary schools. *British Educational Research Journal, 25(3)*, 323– 341.

Fehrmann, P.G., Keith, T.Z., & Reimers, T.M. (1987). Home influences on school learning: Direct and indirect effects of parental involvement on high school grades. *Journal of Educational Research, 80(6),* 330-337.

Guthrie, J. T., Van Meter, P., McCann, A. D., Wigfield, A., Bennett, L., & Poundstone, C. C. (1996). Growth of literacy engagement: Changes, motivations and strategies during concept-oriented reading instruction. *Reading Research Quarterly, 31(3)*, 306-32.

Hauser, R. M. (1994). Measuring socioeconomic status in studies of child development. *Child Development, 65(6),* 1541-1545.

Hofferth, S. L. (1998). *Healthy environments, healthy children: Children in families.* Ann Arbor, MI: University of Michigan Institute for Social Research. (ERIC Document Reproduction Service No. PS 027 250).

Hoover-Dempsey, K. V., Battiato, A. C., Walker, J. M. T., Reed, R. P., DeJong, J. M., Jones, K. P. (2001). Parental involvement in homework. *Educational Psychologist, 36(3),* 195-209.

Hoyle, S. G. (2005). *Same homework, new plan: How to help your disorganized kid sit down and get it done.* Washington, D.C.: Child & Family Press.

Keith, T. Z. (1982). Time spent on homework and high school grades: A large-sample path analysis. *Journal of Educational Psychology, 74(2),* 248-253.

Kravlovec, E. & Buell, J. (2000). *The end of homework: How homework disrupts families, overburdens children, and limits learning.* Boston, MA: Beacon.

McCarthey, S. J. (2000). Home-school connections: A review of the literature. *Journal of Educational Research, 93(3),* 145-153.

Merriam-Webster's Collegiate Dictionary. (2008). (11th ed.). Springfield, MA: Merriam-Webster.

Newmann, F. M. (1992). *Student engagement and achievement in American secondary schools.* New York, NY: Teachers College Press.

Olympia, D. E. (1994). Using student-managed interventions to increase homework completion and accuracy. *Journal of Applied Behavior Analysis, 27(1),* 85-99.

Payne, R. (2005). *A framework for understanding poverty* (4th ed.). Highlands, TX: aha! Process.

Pearl, R., Bryan, T., Donahue, M. (1980). Learning disabled children's attributions for success and failure. *Learning Disability Quarterly, 2(1),* 3-9.

Pintrich, P. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology, 95(4),* 667-86.

Rosenberg, M.S. (1989). The effects of daily homework assignments on the acquisition of basic skills by students with learning disabilities. *Journal of Learning Disabilities, 22(5),* 314-323.

Sawyer, V., Nelson, J. S., Jayanthi, M., Bursuck, W. D., & Epstein, M. H. (1996). Views of students with learning disabilities of their homework in general education classes: Student interviews. *Learning Disability Quarterly, 19(2),* 70–85.

Schumaker, J. B., & Deshler, D. D. (1988). Implementing the Regular Education Initiative in secondary schools: A different ball game. *Journal of Learning Disabilities,21(1),* 36–42.

Shernoff, D. & Schmidt, J. (2007). Further evidence of an engagement-Achievement paradox among U.S. high school students. *Journal of Youth and Adolescence, 37(5),* 564-580.

Shockley, B., Michalove, B., & Allen, J. (1995). *Creating parallel practices: A home-to-school and school-to-home partnership.* Athens, GA: National Reading Research Center, University of Georgia. (ERIC Document Reproduction Service No. CS 012 322).

Slavin, R. (2003). *Educational psychology: Theory and practice.* (3rd ed.). New York, NY: Johns Hopkins.

Snow, C.E., Burns, M.S., & Griffin P. (1998). *Preventing reading difficulties in young children.* Washington, DC: National Academy Press.

Trautwein, U., Köller, O., Schmitz, B., & Baumert, J. (2002). Do homework assignments enhance achievement? A multilevel analysis in 7th grade mathematics. *Contemporary Educational Psychology, 27,* 26-50.

Tymms, P. B., & Fitz-Gibbon, C. T. (1992). The relationship of homework to A-level results. *Educational Research, 34(1),* 3-10.

United States Department of Education, National Center for Education Statistics, Common Core of Data. (2007). *Public Elementary/Secondary School Universe Survey.* Retrieved June 29, 2009, from http://nces.ed.gov/pubs2009/pesschools07/tables/table_07.asp

Vaughn, S., Schumm,J. S., Klingner, J. K., & Saumell, L. (1995). Students' views of instructional practices: Implications for inclusion. *Learning Disability Quarterly, 18(3),* 236–248.

Warton, P. M. (2001). The forgotten voices in homework: views of students. *Educational Psychologist, 36(3),* 155-165.

Weiner, B. (1994). Integrating social and personal theories of achievement strivings. *Review of Educational Research, 64(4),* 557-573.

Zady, M. & Portes, P. (2001). When low-SES parents cannot assist their children in solving science probles. *Journal of Education for Students Placed at Risk, 6(3),* 215-229.

Zimmerman, B. J. & Schunk, D. H. (Eds.). (1989). *Self-regulated learning and academic achievement: theory, research, and practice.* New York, NY: Springer-Verlag.