Homework’s Effect on Academic Achievement: Is There Any?

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Homework’s Effect on Academic Achievement: Is There Any?

Abstract
The purpose of this study is to determine whether the completion of homework, or lack thereof, has any effect on achievement. In the literature, homework is defined and looked at from its positive and negative effects. Then, the purposes of homework are discussed from the views of the three main factions involved – students, parents, and teachers. The discussion then turns to the factors that can increase motivation to do homework and where student beliefs originate. Finally, parent involvements in these beliefs are looked at and a possible remedy to the homework problem (differentiation) is discussed. Upon gathering data, the researcher concluded that there was not a significant relationship between homework completion and assessment results. While certain subgroups had a higher correlation than others, none were so high as to indicate a definitive relationship.

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Is There Any?

By

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Supervised by

Dr. Diane Barrett

School of Arts and Sciences
St. John Fisher College

April 2010
Abstract

The purpose of this study is to determine whether the completion of homework, or lack thereof, has any effect on achievement. In the literature, homework is defined and looked at from its positive and negative effects. Then, the purposes of homework are discussed from the views of the three main factions involved – students, parents, and teachers. The discussion then turns to the factors that can increase motivation to do homework and where student beliefs originate. Finally, parent involvements in these beliefs are looked at and a possible remedy to the homework problem (differentiation) is discussed. Upon gathering data, the researcher concluded that there was not a significant relationship between homework completion and assessment results. While certain subgroups had a higher correlation than others, none were so high as to indicate a definitive relationship.
Dedication

This work is dedicated to my wonderful wife, Shauna. She has patiently endured the long hours spent in isolation as the final product came to fruition. She has cheerfully supported me in the completion of this paper and in some instances, motivated and prodded me to keep working as the overwhelming amount of work that I had to do seemed to be unbearable. Her love and support greatly reduced my stress and anxiety as I continued on the path towards completion.
Acknowledgements

The completion of this project would not have happened if not for the following people.

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- All of my colleagues, known and unknown, for your detailed responses to my questionnaire. Without your responses, I would have been at a dead end.

- All of the parents and students for your honest thoughts and reflections about your involvement in the homework process.

- My wife, Shauna Yockel, and Alyce Sustko for their assistance in editing my work.

- All of my current co-workers who have helped me get acclimated to a new school with new standards and new procedures and for helping me with course materials.
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Homework’s Effect on Academic Achievement: Is There Any?

Student achievement in school is one topic that is at the forefront of most educators’ minds. With continued efforts to improve the quality of education for all students, educators are asking themselves what can be done to assure that all students are learning and achieving at a high level. For many educators, assigning students homework is a method of continuing the curriculum outside of school. Due to the abundance of content that educators feel they have to cover, many homework assignments seem to be an effort to fit in more curriculum or to give students the necessary practice time to master skills before moving on to another section of the curriculum. Much research has been done on the impact that these assignments have on student learning and achievement.

Homework has been a subject of controversy for the past 75 years (Cooper & Valentine, 2001). Cooper and Valentine (2001) noted that homework practices have been popularized notions tied to changing educational philosophies and theories. The theories have wavered back and forth with regards to the benefits, or lack thereof, of homework. In many educators’ minds, homework is a time honored practice that can enhance the development of skills and reinforce knowledge gained within the classroom when it is used effectively and appropriately. It seems that homework is a natural extension of curricular programs. Thus, for many educators, it has become an integral component of everyday instruction. However, one truth remains: Students are the ones that are given these assignments and the students frequently fail to complete the assignments or do them too quickly and fail to gain any benefits.

Many educators believe that homework is a key component of the learning cycle. While some educators view homework as a necessity in order to obtain mastery (House,
2004), others argue that homework is assigned for the wrong reasons, leading to increased student resentment towards future assignments (Truscott, 1998). The issue of assigning homework is controversial in terms of its purpose, what to assign, the amount of time needed to complete it, parental involvement, its actual affect on learning and achievement, and impact on family life and other valuable activities that occur outside of school hours. For the purposes of this study, homework is being viewed as a necessity for student achievement.

Literature Review

The issue of homework has historically been of concern to educators, parents, and students alike. Among these groups, they would most likely agree that the purpose of homework should be to further facilitate learning. Furthermore, educators and parents might add that homework promotes the development of strong study and organizational skills and encourages students to become self-disciplined, independent learners, an aspect not likely recognized by students. However, many students have faced an increase in nonacademic commitments which have created a higher stress level. In turn, researchers have begun to look not only at the positive aspects of homework, but also the potentially negative aspects as well.

Homework: The Positives and Negatives

Harris Cooper defined homework as “tasks that are assigned to students by school teachers that are intended to be carried out during non-school hours” (Cooper, 1989, p.7). Through his research, he has identified many positive and negative effects homework has on both students and their families.
Table 1
Positive and Negative Effect on Homework (Cooper, 1989)

<table>
<thead>
<tr>
<th>Positive Effect on Homework</th>
<th>Negative Effects on Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Immediate Achievement and Learning</strong></td>
<td><em>Satiation</em></td>
</tr>
<tr>
<td>– Better retention of factual knowledge</td>
<td>– Loss of interest in academic material</td>
</tr>
<tr>
<td>– Increased understanding</td>
<td>– Physical and emotional fatigue</td>
</tr>
<tr>
<td>– Better critical thinking, concept formation, and information processing</td>
<td>Denial of access to leisure time and community activities</td>
</tr>
<tr>
<td>– Curriculum enrichment</td>
<td>– Parental interference</td>
</tr>
<tr>
<td><strong>Long-term academic</strong></td>
<td></td>
</tr>
<tr>
<td>– Encourage learning during leisure time</td>
<td>– Confusion of instructional technique</td>
</tr>
<tr>
<td>– Improved attitude toward school</td>
<td><em>Cheating</em></td>
</tr>
<tr>
<td>– Better study habits and skills</td>
<td>– Copying from other students</td>
</tr>
<tr>
<td><strong>Nonacademic</strong></td>
<td></td>
</tr>
<tr>
<td>– Greater self-direction</td>
<td>Increased differences between low and high achievers</td>
</tr>
<tr>
<td>– Greater self-discipline</td>
<td></td>
</tr>
<tr>
<td>– Better time organization</td>
<td></td>
</tr>
<tr>
<td>– More inquisitiveness</td>
<td></td>
</tr>
<tr>
<td>– More independent problem solving</td>
<td></td>
</tr>
<tr>
<td><strong>Greater parental appreciation of and involvement in schooling</strong></td>
<td></td>
</tr>
</tbody>
</table>

According to Cooper (1989), the positive effects of homework are broken into four categories: immediate achievement, long-term achievement, nonacademic effects, and effects on parental involvement. The negative effects of homework described by Cooper are often the result of misuse of homework as a teaching and learning strategy. Teachers who assign
too much homework or assign busy work can inadvertently illicit negative effects by putting too much pressure on students or not allowing for individual differences. Teachers who repeatedly present homework to students that is simply designed to make sure the child is doing something without actually requiring the student to push his/her academic development or utilize creativity may cause a student to lose interest. Cooper (2001) noted that, “an activity can only be rewarding for so long. If students are required to spend too much time on academic material, they are bound to grow bored with it” (p. 35). Teachers who assign an abundance of homework may also cause the student to miss out on valuable leisure time and other community activities which may be important for personal, spiritual, moral, and social development. Cooper argued that these forms of development may be as essential for personal growth as academic development. Another issue explored by Cooper was cheating. Cooper suggested that students are more likely to cheat when placed under a great deal of pressure to complete over-burdening homework assignments.
Cooper (1989) presented a model of the homework process.

### Table 2

**A Model of Factors Influencing the Effects of Homework (Cooper, 1989)**

<table>
<thead>
<tr>
<th>AssignmentExogenous factors characteristics</th>
<th>Initial classroom factors</th>
<th>Home-community factors</th>
<th>Classroom follow-up</th>
<th>Outcomes or effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student characteristics</td>
<td>Provision of materials</td>
<td>Competition for student time</td>
<td>Feedback</td>
<td>Assignment completion</td>
</tr>
<tr>
<td>Ability</td>
<td>Purpose</td>
<td>Home environment</td>
<td>Assignment completion</td>
<td>Written comments</td>
</tr>
<tr>
<td>Motivation</td>
<td>Skill area used</td>
<td>Space</td>
<td>Assignment performance</td>
<td>Grading</td>
</tr>
<tr>
<td>Study habits</td>
<td>Degree of individualization</td>
<td>Light</td>
<td>Immediate academic performance</td>
<td>Incentives</td>
</tr>
<tr>
<td>Subject matter</td>
<td>Degree of student choice</td>
<td>Materials</td>
<td>Long-term academic performance</td>
<td>Testing of related content</td>
</tr>
<tr>
<td>Grade Level</td>
<td>Completion deadlines</td>
<td>Others' involvement</td>
<td>Nonacademic</td>
<td>Use in class discussion</td>
</tr>
<tr>
<td></td>
<td>Social context</td>
<td>Parents</td>
<td>Parent involvement</td>
<td>Use in class discussion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Siblings</td>
<td>Parent involvement</td>
<td>Use in class discussion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other students</td>
<td>Cheating</td>
<td>Use in class discussion</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Increased student differences</td>
<td>Use in class discussion</td>
</tr>
</tbody>
</table>
That model was meant to provide a comprehensive account of the variables mentioned in other educational research that might influence homework’s impact on a list of educational outcomes. Cooper’s model suggested that the homework process could be divided into two classroom phases, with a home-community phase separating them. Cooper’s model viewed student ability and other individual differences as exogenous to the process. However, the student characteristics of race and family background were not among the initial variables because they are typically used in research as proxy variables meant to assess indirectly differences in home environments. In the Cooper model, differences in home environments were directly represented under home-community factors. Homework assignment subject matter and student grade level were also included as exogenous factors.

Cooper was not alone in pointing out that homework can have negative effects. Kralovec and Buell (2001) argued that doing homework may instill a sense of responsibility in students and help them budget their time, however, “much larger negative implications exist for homework and its effect on students, families, and the community at large” (p. 40). Kralovec and Buell emphasized that students spend several hours each night agonizing over doing homework that they may not understand or have the resources at home to complete. This, in turn, takes away from invaluable time that could be better spent with family and other social commitments. “[Schools] separate parents and children from vital interaction with each other and from true curiosity about each other’s lives. Schools stifle family originality by approaching the critical time needed for any sound idea of family to develop—then they blame the family for its failure to be a family” (Kralovec & Buell, p. 41). Students often miss family meals or other family occasions due to the many hours of homework that needs to be completed. Many activities that students enjoyed during their childhood are
eliminated after eighth grade due to overloaded student schedules (Kralovec & Buell, 2001). At a time when top colleges and universities are increasingly seeking the well-rounded individual, students are being forced to limit their creative and community interests in order to concentrate on homework and grades.

**Student, Parent, and Teacher Perceptions**

The purposes of homework assignments can be divided into instructional and non-instructional objectives (Epstein & Van Voorhis, 2001). The most common instructional purpose of homework is to provide the student with an opportunity to practice or review material that has already been presented in class (Becker & Epstein, 1982). Preparation assignments introduce material to help students obtain the maximum benefit when the new material is covered in class (Muhlenbruck, Cooper, Nye, & Lindsay, 1999). Extension homework involves the transfer of previously learned skills to new situations (Lee & Pruitt, 1979). Finally, homework can require students to integrate separately learned skills and concepts (Lee & Pruitt, 1979).

Homework has other purposes in addition to enhancing instruction. It can be used to establish communication between parent and child (Balli, Demo, & Wedman, 1998; Van Voorhis, 2003). Homework can fulfill directives from school administrators (Hoover-Dempsey, Bassler, & Burrow, 1995). Homework can also be used to punish students (Epstein & Van Voorhis, 2001). Homework assignments rarely reflect a single purpose. Rather, most assignments serve several different purposes; some relate to instruction, whereas others may meet the purposes of the teacher, the school administration, or the school district. Van Voorhis (2003) grouped the purposes of homework into five categories: to promote academic learning, to develop generic skills, for school purposes, such as easing time constraints on the
curriculum or to fulfill expectations of parents, to promote home-school links, and to promote communication within the family.

Much of the research about the purposes of homework reflected the adult point of view, whether that of teachers, parents, or school administrators. In fact, two of Van Voorhis’ (2003) five categories, for school purposes and to strengthen home-school links, appear to have no direct relevance to students. A third category, namely promoting communication within the family, may be of little priority to the children concerned. Warton (2001) similarly argued that purposes for homework reflect only an adult point of view. It is unsurprising, therefore, that there may be difficulties among parents, teachers, and students about homework. Difficulties may be caused by the traditional actor-observer difference between the student required to do the work and the adult who either sets the task or supervises its completion.

The many purposes of homework can be summed up succinctly by Jianzhong Xu. Xu (2005) conducted a study that discusses the purposes for doing homework from the three different perspectives of the student, the teacher, and the parents. He also noted that there was not a lot of research about students’ perceptions of homework. Xu collected information about the perception of homework from 920 students in grades 5 through 12. According to Xu, there are ten purposes for doing homework. These purposes include practice, preparation, participation, personal development, parent-child relations, parent-teacher communications, policy, peer interactions, public relations, and punishment, with the main one being the practice of concepts taught in class. All ten of the purposes can be divided into two groups, intrinsic reasons and extrinsic reasons. The main intrinsic reason that students do homework is to better themselves. The most common extrinsic reason for completing homework is to
please the teacher or parents. Xu found that the students who only did homework for intrinsic reasons had a lower rate of incomplete homework.

The views of teachers and parents regarding homework often exert more important influences on student homework behavior than do children’s own views (Cooper, Lindsay, Nye, & Greathouse, 1998; Warton, 2001). Therefore, it is important for one to examine the purposes that students perceive for doing homework to determine whether those purposes are related to their homework behavior and academic achievement. Such an examination is particularly important at the middle and high school level, “as students grow older their own attitudes about homework … play an increasingly important role in how much homework they complete and their class grades” (Cooper et al., 1998, p. 81).

While some students share some purposes for doing homework with adults, they often do homework for other reasons that may be of little relevance to their parents and teachers. Xu and Corno (1998) compared perceived reasons for doing homework among six students from one urban school and their parents and teachers. This study revealed that the parents and teachers shared similar views about purposes for doing homework. Both groups of adults felt that homework was a way to reinforce school learning and to develop self-regulatory attributes such as responsibility to complete their own assignments. As for the children in the study, a majority of them were aware of the role that homework played in helping them better understand their lessons. However, they seemed unaware of their parents’ view that homework could foster the development of desirable attributes. Instead, the children’s predominant reason for completing homework was to win the approval from their parents and teachers.
Cooper et al. (1998) examined relationships between student, parent, and teacher attitudes toward homework. Among those that participated were 709 students, their parents, and 82 teachers. The study posed five questions, two of which focused on affective reactions towards homework, whether it was liked or disliked and whether it increased or decreased interest in school. The other three questions focused on perceived benefits of homework, whether it helped students learn, develop study skills, and manage their time. The results revealed that teacher attitudes were more positive than parent attitudes, which, in turn, were more positive than student attitudes. The results also revealed significant positive correlations between parent and student attitudes.

The importance of the parents’ role was also evident in another study (Leone & Richards, 1989) that investigated students’ subjective experiences while doing homework. In this study, the researchers asked the students to carry an electronic pager for a period of one week. The students were signaled every two hours during their day and asked to complete brief journal entries on where they were, with whom they were with, and what they were involved with and thinking. Students rated their levels of positive affect, motivation, and attention lower during homework than they did during other activities. Students reported that they were most attentive to homework when they were with a parent, rather than with a peer or on their own. In addition, older boys were more likely to do homework with one parent than the younger boys. The students most likely to do homework with parents were high achievers who spent more time on homework as they got older.

Xu and Corno (2003) found some correlation between family involvement in homework and self-regulation in homework completion, one of the major purposes for doing homework held by adults (Xu & Corno, 1998). The authors defined self-regulation in
homework completion in terms of five features: setting up an appropriate environment for homework, managing homework time spent, and control of attention, motivation, and potentially interfering emotions. Upon completion of their study, Xu and Corno found that family involvement in homework related to two of the five features for managing homework: arranging the environment and controlling emotion, the two features that students reported giving less attention to on their own. That finding suggested that students benefit from having clear expectations regarding how to arrange the homework environment, as well as from adults showing them how to cope when doing homework becomes difficult or distractions arise.

So, the question remains: How can we get students to perceive the positive effects of doing homework? Many students have struggled and will continue to struggle with homework assignments. Is it the goal of educators to stifle student creativity or to create such an unmistakable disdain for school and homework? Results of the studies discussed so far may lead one to question just what role homework is playing in schools and the level of impact successful completion of homework assignments is having. The key may be in allowing students a greater voice in the design and use of homework and a greater level of choice in order to increase student motivation in the classroom.

Motivational Factors in Learning

Many students struggle to succeed during their educational years due to low motivation. This problem is evidenced by low test scores, lack of participation in classroom activities and other school-based activities, incomplete or unattempted homework assignments, and an overall disinterest in becoming independent learners. However, over the past 25 years, researchers have made advances in social cognition which have contributed to
a much deeper understanding of motivation in children and youth (Weiner, 1994). Motivation used to be viewed as an inner need or drive that individuals have in greater or weaker strengths. According to Weiner (1994), motivation is best understood as a collection of beliefs, attitudes, and emotions that influence students’ performance in school. These include students’ explanations for the causes of success and failure, their personal expectations and standards for performance, confidence in their ability to do well, and beliefs about the nature of intelligence (Weiner, 1994). This study of motivation argues that students can come to perceive that success and failure in school depends on the level of their effort, their level of ability, and external factors, such as luck or task difficulty (Weiner, 1994). These attributes vary in the extent to which they are perceived as internal or external, stable, and controllable. According to Weiner, students tend to perceive their own efforts as controllable, internal, and unstable. At the same time, they view their own abilities as uncontrollable, internal, and stable. Furthermore, attributions are linked to specific emotions, which in turn, predict future achievement behavior. For example, a student who believes she failed a math test because she waited until the last minute to study will likely feel embarrassed. This embarrassment stems from her own understanding that there was a lack of effort on her part. This embarrassment will lead her to study in advance of the next test. In contrast, if a student believes he failed the math test because he is not good at math, he will probably feel incompetent and ashamed due to his self-thought lack of ability, and as a result, sees little purpose in studying hard for the next math test.

This approach to children’s motivation to learn, therefore, can be manipulated by careful intervention. Research has shown that children who are susceptible to learned helplessness, the tendency to fall apart in the face of difficulty or challenge, tend to believe
that mistakes are a sign of low ability, a stable quality of the self over which they have no
control. Yet, when trained to view mistakes as the result of a lack of effort, children adopt
more positive ways of dealing with academic difficulty, such as taking more time to check
their work and asking the teacher for help (Diener & Dweck, 1978).

Origin of Beliefs

It seems likely that children’s beliefs about learning and achievement develop in the
multiple contexts of their homes, schools, and communities. According to Stipek and
Gralinski (1991), parents’ and teachers’ beliefs about learning have a profound influence on
the development of children’s own beliefs about what it takes to do well in school, as well as
their efforts to learn and apply themselves. Phillips (1987) studied children’s views of their
own ability in a group of very high achieving students. Although all were outstanding
students, some had very low perceptions of their abilities. As Phillips discovered, their
parents had very low opinions of their children’s abilities as well. These children were
swayed to adopt the belief of their parents rather than form their own beliefs based on their
own excellent record of achievement.

Likewise, schools and teachers can similarly influence the development of students’
beliefs about achievement. The effects of low expectations, communicated subtly by teachers
in ways such as not allowing enough time to respond to a question, and even potentially the
school structure (e.g., through placement in lower tracks), can result in lower achievement
children as young as five are able to interpret what teachers think about their abilities from
their teachers’ emotions. For example, when a teacher displays anger after a child does
poorly on a test, children assume that the teacher believes they put in a poor effort and did
not try hard enough. In contrast, when a teacher expresses pity at a low grade, children assume, again correctly, that the teacher believes the student has low ability and is not able to do any better (Phillips, 1987).

*Homework vs. Academic Achievement*

Evidence now demonstrates that academic achievement is positively related to homework completion (Cooper et al., 1998). For example, Keith and Cool (1992) found that regardless of students’ ability or prior coursework, the amount of time they devoted to homework increased their achievement. Cooper’s extensive research on the potential benefits of homework has shown that homework exerts its greatest influence in higher grades rather than lower grades (Cooper, Valentine, Nye, & Lindsey, 2000). More specifically, in grades six through ten, there is a positive correlation between the amount of homework that students complete and their grades. In grades two through four, this same correlation is negative. This finding, along with research stating that students’ emotions can become depressed when they are engaged in homework (Leone & Richards, 1989), has led some to argue that homework can actually be detrimental in elementary school. Others have argued that if homework does not foster achievement or has a negative effect on grades, it may make sense to minimize or eliminate assigning homework altogether (Kralovec & Buell, 2001).

Further examination of benefits of homework in elementary students suggests many other factors in play, including the cognition of the children as well as the role that teachers play. Research has shown that, due to their limited cognitive capacity, the study habits of younger children tend to be less effective. These younger children have also shown difficulty in focusing and avoiding distractions (Hoover-Dempsey et al., 2001). Teachers across grade levels also tend to use homework differently. A 2000 survey (Hoover-Dempsey et al., 2001)
found that teachers at both the elementary and secondary levels assign homework in order for
students to cultivate their own studying and time management skills. However, elementary
teachers have a stronger belief in the value of training students to study and use their time
well. The implication is that elementary teachers may feel that homework content is far less
important than the opportunity it provides to create long-term time management skills, the
effect of which is not evident in young children’s grades (Muhlenbreck et al., 1999).

As was previously mentioned, the development of study and time management skills
occurs in the larger context of home and school. Parents are often considered as the teachers’
partners in their children’s learning. As such, parents play a critical role in the development
of their children’s beliefs about and approaches to their homework.

*Parent Involvement and Relationship of Educational Beliefs*

Parent involvement takes on many different forms. Their involvement can have
positive or negative lasting effects. Their behaviors about homework send a clear message
about how education is valued in the home. Behaviors such as going to parent-teacher nights
and other school events or showing personal investment by showing that they enjoy their
child’s school create positive beliefs about the benefits of school. Furthermore, parent
interactions with school personnel and helping their child with their homework all serve to
communicate the value of education. In general, parents across all social classes and ethnic
groups are willing to help children with homework and believe that doing so is part of their
responsibility as parents (Delgado-Gaitan, 1992). Furthermore, parents have the perception
that teachers expect them to help their children with the assignments (Hoover-Dempsey et al.,
2001).
In one form or another, many of the researchers that have studied homework and its effects have spoken to the development of student motivational skills. Some of these motivational skills include responsibility, confidence, persistence, goal setting, planning, and the ability to delay gratification. Students need all of these skills in increasing capacities as they progress through their high school years and beyond. It seems likely that these skills are fostered through interactions with parents. In essence, parent involvement is a key ingredient in the development of beliefs and attitudes that help foster academic achievement. For example, Grolnick and Slowiaczek (1994) have suggested that children whose parents are supportive of their intellectual development may develop a higher level of comfort and familiarity with school-related tasks. This may empower students to believe that school-related activities are controllable, which further facilitates the development of adaptive beliefs about the causes of success and failure in school. In relation to this, Cooper et al. (1998) examined the relationship between the beliefs of parents and students and concluded that at all ages, children’s attitudes about homework were positively associated with parents’ attitudes. Furthermore, in the higher grades, students’ attitudes about homework were directly predicted by their parents’ attitudes, which were positively and directly related to their children’s school performance. Cooper, Lindsey, and Nye (2000) tested how homework effects academic achievement and found that parents with positive attitudes about homework were able to more effectively help their child in ways that promoted understanding. By being less intrusive, parents did not hinder the completion of the homework assignment. This promotion of a true understanding of the homework helped to facilitate the completion of the assignment, as the children had less stress and difficulty. In a sense, assignments that students understand became more enjoyable.
When parents understand what teachers are requiring of their children, they then influence the ways students come to judge the difficulty of different assignments. This influence also aims in helping children understand the extent to which they will need to manage their time in order to meet deadlines and understand that there are times when personal gratification or fun needs to be set aside for the sake of quality time spent on homework. Parents have an important role of modeling and providing guidelines for how homework can be completed. These steps help children manage their time and develop their motivational skills, including goal setting, planning, persistence, and delay of gratification (Hoover-Dempsey et al., 2001). Undoubtedly, parents are in a greater position to influence their children when they are younger than when they are older.

Differentiation, Reality, and Student Satisfaction

As Strong, Thomas, Perini, and Silver (2004) indicated, student differences in learning mathematics tend to cluster into four mathematical learning styles. Those with a mastery style tend to work step by step while individuals with an understanding style search for patterns, categories, and reasons. Students prone to an interpersonal style tend to learn through conversation, personal relationships, and association. Finally, the self-expressive learner tends to visualize and create images and pursue multiple strategies. Students are able to work in all four styles but tend to develop strengths in one or two of the styles.

So, where does homework fit into this? “If teachers incorporate all four styles into a math unit [and assignments], they will build in computation skills (mastery), explanations and proofs (understanding), collaboration and real-world application (interpersonal), and non-routine problem solving (self-expressive)” (Strong et al., 2004, p.74). People who have solved Sudoku puzzles can appreciate the value of options. These puzzles give an easy,
medium, or hard challenge. Solvers can choose between difficulties based on their understanding of how such puzzles are solved and a self-determined ability to do so. However, one might soon lose motivation or interest in completing the puzzle if there was no challenge. As you master the concept of solving the puzzle, you can increase your challenge by trying a more difficult puzzle. By working in stages, mastery can be more quickly achieved. By providing options, adding variety, and differentiating homework, learning math might be better achieved for all. Homework might involve an open-ended task or a unit long independent investigation, which serves to synthesize content and develop literacy skills. Short- and long-term projects and performance tasks, which include options for oral, visual, or written response modes, allow students to test their interpersonal and self-expressive styles of learning.

Marzano and Pickering (2007) provided the following guidelines to help ensure that homework is completed and appropriate:

1) Assign purposeful homework – purposes include introducing new content, practicing a skill or process that students can do independently, elaborating on information that has been addressed in class to deepen students’ knowledge, and providing opportunities to explore topics of their own interest.

2) Ensure that homework is at an appropriate level of difficulty. Students should be able to complete homework assignments independently with relatively high success rates but still find them challenging enough to be interesting.

3) Involve parents in appropriate ways without requiring parents to act as teachers or to police students’ homework completion.
4) Carefully monitor the amount of homework assigned so that it is appropriate to students’ age levels and does not take too much time away from other home activities. (p. 78)

Creating a tiered assignment structure based on student interests and abilities and being flexible in homework completion schedules are among differentiated strategies that add to the complexity of teaching (Marzano & Pickering, 2007). However, tiered assignments also increase student engagement. Planning differentiated homework takes more time than assigning problems out of a textbook, just as planning for differentiated instruction takes time with its different classroom management techniques, flexible grouping, and teaching beyond the traditional lecture to a group of students. Collaboration with teaching colleagues provides the best avenue for success. In planning, differentiated homework assignments often require a clear set of expectations. These clear expectations can be communicated through the use of rubrics.

Realistically, differentiation of any kind is difficult to achieve, much less, sustain. When class sizes tend to be large, with mixed abilities, and when there are so many demands on teachers to prepare students for standardized testing, the task can simply become frightening. Implementing differentiated homework means getting to know your students better than you might already know them and having them, as well as their parents, understand a different view of “fairness,” particularly for grading purposes. Everyone might be doing the same amount of homework, but that homework might not be the same for all students, all the time.
Summary

As students progress through elementary to secondary and post-secondary schooling, the tasks that teachers require of them become increasingly complex. For many students, mistakes, confusion, and academic struggle become a common aspect of learning. Children need to know that the adults around them believe in their ability to acquire new knowledge and master new skills, especially in the face of difficulty. Despite concerns and outright objections from some parents, teachers need to maintain appropriate standards of performance for their students through homework requirements. Under the guidance of adults who challenge their intellectual growth, homework provides students with the training they need to develop adaptive achievement beliefs and behaviors. All children need to be pushed as they struggle to become mature learners.

Although homework research has concentrated largely on the connection between homework and achievement and the benefits therein, there are still questions to be considered. There is an absence of research focusing on the link between the type and quality of homework, rather than quantity, and achievement outcomes. There is also a lack of research about the role of the internet with regards to homework. Finally, the issue of the role of homework in fostering the attainment of generic skills in students such as time management or learning autonomy needs further attention.

As Corno (1996) asserted, policymakers, educators, and parents can all benefit from knowing more about the results of homework, the circumstances under which it may be beneficial, and what they can do to make the practice more effective. Homework is unlikely to fulfill its role in contributing to the development of generic skills such as time management and learning autonomy unless it is viewed in a relatively favorable light by
students. It is time students were encouraged to understand why they are required to complete a task that, for many, is unpleasant. They are unlikely to make the achievement-related choices relevant to homework if they do not hold these understandings. Teachers need to come up with ways that homework is being enjoyed and valued and not seen as a disliked, solitary activity. A challenge for the education profession is to help develop a view of homework as an opportunity to truly encourage seamless learning across home and school contexts.

Methodology

This study took place at a high school in Hagerstown, Maryland in the 2009-2010 academic school year. The school was the largest high school in the Washington County Public School District and consisted of approximately 1400 students. The school operated on a two-semester school year, with each semester lasting approximately eighteen weeks and classes met daily for 90 minutes. This study took place during the first semester. At the end of the first semester, students received a different class schedule and proceeded as if beginning another school year. State assessments were, therefore, given twice each year. The students in this high school were from a variety of ethnic backgrounds which included American Indian (1%), Asian (4%), Hispanic (15%), African American (35%), and White (44%), and the remaining 1% were other ethnicities. The ninth-grade class had 402 students. The tenth grade class had 352 students. The eleventh grade class had 282 students. Finally, the twelfth grade class had 265 students. These numbers showed a disturbing trend of a high dropout rate. Sadly, these numbers are indicative of a longer trend seen in the city of Hagerstown.
Participants

The participants of this study were students in two algebra classes, named Period One and Period Two. The classes chosen for this study were both Algebra classes and the topics covered included systems of equation, properties of exponents, polynomial functions, rational expressions, and quadratic functions. Both classes met daily for 90 minutes. Period One met from 9:00am to 10:30 am. Period Two met from 10:35am to 12:05pm. As mandated by the district, the courses were taught following a scope and sequence that was created by the county, and expected to maintain the pacing that was laid out. There were 27 students in Period One and 26 students in Period Two. Period One had one English Language Learner (ELL) and seven students who had an Individualized Education Plan (IEP). Period Two had five students who had an Individualized Education Plan (IEP). These classes were assigned by the administration.

Materials

The materials used for this study included the curriculum for the fall semester and lessons, homework, and assessments to monitor student achievement. Those assessments included teacher-made assessments as well as county-made Benchmark exams, which were similar to midterm exams. Lessons and homework assignments were created by the teacher, and were aligned to Maryland State Standards as well as to Washington County Standards. Both classes received the same instruction and assignments and were given the same assessments on the same days.

Procedure

The research included three different phases. The first two phases focused on the two main parties involved in the assigning of homework: teachers and students. Numerous math
teachers were asked to fill out a voluntary questionnaire (See Appendix A) in order to obtain information regarding their views and opinions on their own homework policies and procedures. Communication was established through facebook (a social networking website), email, and also face to face communication. The purpose of this questionnaire was to understand their perceived reasons for assigning homework as well as how they chose to assign questions. Questions also addressed how they chose to grade or assess these assignments. This questionnaire was purposefully open-ended and practical in order to see the life of a homework assignment from its inception to its role in the classroom and eventual place in a students’ grade.

The second phase targeted the students and parents. Information was gathered to gain insight as to how the students viewed these assignments (see Appendix B). Ideally, the information gathered was to reflect on how the students feel homework affects their overall understanding of content. This questionnaire provided information pertaining to attitudes about homework. It seemed likely that students who enjoyed math would probably not mind doing math homework. On the contrary, students who struggled may have a more difficult time in completing assignments individually. Finally, parents were contacted (see Appendix C). With these parent responses, their attitudes and involvement with homework were also studied.

The last phase of this research was actual data gathered in the aforementioned classrooms. This data focused on homework completion rates and assessment scores. Data was collected that tracked the number of missing assignments and compared how students achieved on end-of-chapter tests as well as the county Benchmark exams given every six weeks. The goal was to see whether or not completing homework effects test scores,
ultimately answering the question: Does homework have any effect on academic achievement?

Results

It is evident from the data gathered that the opinions on homework differ from teacher to teacher, parent to parent, and also student to student. From the achievement results, to the amount of homework assigned, to the ages of students doing homework and to the time students spend on homework, few people agree. These differing opinions matched up very well with the findings from the literature. The views and attitudes about homework are as different as those being asked.

In a survey done by the researcher, parents were asked to answer questions about homework policies that were instilled in their homes. 33 percent (15 of 45) of the parents who were asked to participate returned the survey. Two-thirds of those who participated in the survey acknowledged an understanding of homework being used as a tool for their children to develop initiative and responsibility. Furthermore, 80 percent of the parents who responded admitted a lack of confidence in their ability to help their children complete their math homework. Some of the reasons included not liking math themselves and not remembering how to complete the material. It seemed evident that the parents’ personal knowledge arose from all of their life experiences, past and present. One parent commented, “I had a difficult time with math when I was in high school and they do things so much differently now then when I was there. Even if I remembered how to do the problem, it is not the right way.” Their feelings about homework stemmed from their own individual experiences with the subject matter.
Many different belief systems and values which each family adopts around the idea of homework were noted. Two parent responders mentioned their desire for their children to develop life long skills that will help them to become successful, caring and responsible members of society. One parent stated, “School is one of the first places where students have an opportunity to contribute positively or negatively to a large group of people. They are surrounded by many adults in varying roles who are there to model acceptable behavior.” Many parents stated that school was an important place for their children to learn these values in addition to the course material being taught. One parent even expressed a desire to “somehow incorporate these skills through long-term projects or assignments.” This same parent was also interested in creating new graduation requirements for students that expected the student to give 50 to 75 hours of their personal time to some kind of community service.

While most parents seemed to support the idea and purposes of homework, there were two parents who felt that homework was unnecessary. Both of these parents referred to their own upbringing and referenced their own parents’ attitudes about homework. They responded that “with proper educational techniques, a student should be able to acquire all the knowledge necessary during the [instructional] day.” Another parent also acknowledged displeasure in their child bringing home homework that simply was work not completed in class. This same parent commented that homework should be tailored to each student’s needs. Family feuding also seemed to be an issue. One parent said “it [homework] ruins your home life because you’re constantly at odds about doing something, and I’m under pressure as a parent to be his teacher, and he’s under pressure to learn something that he can’t learn, and you’re basically creating an atmosphere of hostility every night, all the time.” Once again,
choosing to follow, or not follow, their own family’s traditions was the basis for all of the parents’ decisions and policies on homework.

Teacher’s views on homework demonstrated the most variance. From the eighteen responses from teachers, the views ranged from homework being absolutely necessary to practically worthless. One of the teachers who responded was from Saskatchewan, Canada. These teachers taught subjects ranging from fifth grade general math through twelfth grade AP Calculus. Not surprisingly, math teachers who taught higher levels of math such as AP Calculus noted greater success with homework completion. While it was difficult to conclude that teachers in different grades had different opinions or expectations about homework, it is not surprising that upper-level teachers had better successes with homework. In general, students in such courses make up the upper echelon of students from any given school.

Four teachers that felt homework was necessary commented on the expectations of state or county curriculum mandates. A teacher from New York state commented, “I just don’t see how there is enough time [in the school year] to effectively teach all the topics. I have to give homework so that the students can practice before moving on to the next topic. However, getting students to do the homework is not easy. Low homework completion rates leads to greater difficulty as the year progresses.” Another similar comment echoed this. “It is hard to get the students to see the bigger picture of how all of the algebra topics tie in to each other and stress the importance of retaining the knowledge that they get. So many [students] just want to memorize how to do a problem to pass a test. Then, two weeks later, they are struggling with the next chapter because they don’t remember how to do what they were previously taught.”
From the results of the survey, it was clear that every teacher has a homework procedure in place. However, fourteen of the eighteen teachers that were surveyed were not completely satisfied with their current policies. Every teacher that responded said they give math homework almost every night they had class. These assignments varied in length and type. Most assignments were between five and ten questions long. Some of the assignments were from textbooks while others were teacher-created.

Fifteen of the teachers who responded expressed dissatisfaction with how they currently graded homework and how much time in class it took to go over the homework. One teacher stated, “With all of the planning, meetings, communicating with parents and other teachers that need to be done throughout the day, I really don’t want to collect and grade homework. But, if I do not collect it, they [students] do not do it.” Yet another teacher stated, “I typically just go around and check for completion. However, the students picked up on this and began giving less effort on the assignment. On occasion, I even catch some of them in the hall right before class copying down the work from a classmate.”

All of the teachers who responded to the survey felt that doing homework was important. However, thirteen teachers mentioned having trouble incorporating the homework into the student’s grade. Of the teachers that referred to their weighted grading system, the weight of homework ranged from 15 percent of a student’s grade to 50 percent. Almost all the teachers referred to the time it took to go over and correct the assigned homework and therefore, just checked it for completion. This was among the leading causes of their dissatisfaction. They found that the level of cheating increased and that students just wrote work down in order to get credit for it.
The following two quotes from teachers reflect the dilemma many math teachers face when it comes to assigning homework. First,

“Homework should be additional individual practice. It should not be graded right or wrong, but students should get feedback on whether or not they are doing the mathematics correctly. If it were my choice, I wouldn’t grade homework or even count it as credit. It should be something that the students do if they need the additional practice. If they are proficient, it won’t help them to do it 20 more times. If they do it 20 times wrong or copy it from a friend to get the credit. However, how do you keep students accountable for their own individual practice as needed without overstretching your time to meet with each one individually as they need time?”

Second,

“I used to think homework is a vital part of math, but this year, in my lowest Algebra 2 class, I did not give them homework during the fourth marking period. I told them that they needed to show me they could do it and if they could, then that person would have no homework. I would give them class time to practice and then check it off when they were done. We were doing the hardest part of the course and the major assessment scores rose. I am seriously reconsidering the impact that homework has on learning!”

In the final stage of gathering data, students were also asked to share their thoughts about homework. The students were very honest in their answers to the questions that were posed. They made it very clear that they were aware that they seldom did their assignments. When asked why they failed to complete the assignments, their answers varied. However, the most common responses were that they didn’t feel like doing it or they did not understand
how to do it. One student stated, “You went too fast through the notes so I do not understand how to do this.” Another student stated, “I know you just look at it in less than 5 seconds so if I just write something down, I will get some credit.”

In an attempt to investigate the relationship that homework completion had on assessment results, the researcher gathered data over a fifteen week period. When all of the students were studied as a whole group, there seemed to be a negative correlation between the number of incomplete homework assignments and the average assessment score received by each student. That is to say, when a student has a higher number of incomplete assignments, their average test score was lower. As seen in Figure 1, there is a general negative trend associated with the researchers’ findings.

![Figure 1: Relationship Between Number of Homework Assignments Completed and Assessment Scores – Whole Group Data](image)

The trend line that is shown in Figure 1 has a coefficient of determination, or $R^2$ value, of 0.396. This value suggests that the number of missing homework assignments can predict a
students’ assessment score approximately 40 percent of the time. Hence, there are other factors that must be considered when predicting a student’s assessment scores. These other factors will be discussed in more detail later.

As the researcher broke the data into subgroups, other interesting observations were noted. Figure 2 and Figure 3 show data broken down by sex. When the data of just the male students was looked at, the $R^2$ value actually decreased to 0.331. Surprisingly, the data of just the female students showed an increased $R^2$ value of 0.5462. This suggests that the number of assignments completed by female students will better predict their assessment score by almost 65 percent, as compared to the male students. This could suggest that there are not as many factors contributing to female students’ achievement on assessments as there are for their male counterparts.

![Graph showing the relationship between the number of incomplete homework assignments and average assessment scores for male students.](image)

*Figure 2: Relationship Between Number of Homework Assignments Completed and Assessment Scores – Male Students Only*
The final interesting observation was observed as the researcher broke the students into subgroups separating students with disabilities and regular education students. The group of regular education students showed an R² value that was very close to the original, whole group data. This R² value was 0.3924, as seen in Figure 4. More interestingly, the R² value for the group of students who were classified as students with disabilities was by far the lowest. This R² value came in at 0.1585, as seen in Figure 5. This suggests that the number of assignments completed by regular education students will better predict their assessment score by almost 60 percent, as compared to the students who were classified as students with disabilities.
Figure 4: Relationship Between Number of Homework Assignments Completed and Assessment Scores – Regular Education Students Only

Figure 5: Relationship Between Number of Homework Assignments Completed and Assessment Scores – Special Education Students Only
While it seems obvious that there are other factors that would influence student achievement on assessments, the data that was collected made that statement much more evident. Other factors that should be considered will now be discussed.

Discussion

Does homework improve learning? While this question does not seem all that complicated, the answer has eluded researchers for decades. There simply does not seem to be a straightforward answer. Even as data was gathered and surveys were filled out for this research, the answer is still unclear. Results from the research clearly show that there are more issues at play regarding assessments than just homework. Any number of issues could complicate the picture and make it more or less likely that homework would appear to be beneficial.

In data gathered from parents, one parent was interested in creating new graduation criteria for students that required students to give 50 to 75 hours of their personal time to some kind of community service. This seems unlikely to happen because it would require school administrators and teachers to allot educational time in order to narrow in on each family’s belief system, a process that is much too time consuming since the majority of time during school is to be spent on academics rather than ethical values and beliefs. This sentiment relates to Kralovec and Buell’s (2001) view that there is more to a child’s life than school and homework. “Work and schoolwork are part of our system of core values, and they play a vital role in our lives, but they do not define the totality of those lives” (Kralovec & Buell, 2001, p. 41).

Overwhelmingly, the math teachers surveyed recognized the need for change in their current systems. However, they each continued to struggle with implementing a policy such that the homework assigned was meaningful for all of the students. Short of creating
individual assignments for each student that focused on that student’s needs, this will continue to be a frustrating battle for teachers. Furthermore, even with the means to create such individual assignments, there is still not any proof to indicate that the homework assignments will lead to higher success on assessments.

Many of the frustrations expressed by the teachers surveyed for this study focused on difficulties in implementing and assessing the actual homework itself. It seemed that, from the teacher’s standpoint, they were only focused on two of Van Voorhis’ (2003) five purposes of homework, namely promoting academic learning and easing time constraints on the curriculum. Perhaps many teachers are unaware of other uses of homework such as promoting home-school links and promoting communication within the family. Often times, teachers can become narrow-minded in their goals for their classrooms. Perhaps there are more positive outcomes of homework that have very little to do with educational goals and values of individual teachers. Many teachers insist that students continue to fail because they do not do their homework, a claim that is not validated by any research. However, more focus could be put on positive aspects that students’ efforts on homework could have. As Cooper, Lindsay, Nye, and Greathouse (1998) suggested, the views of parents and teachers often exert more influence on student homework behavior than the student’s own views. It may be more beneficial, and consequently, less stressful if teachers did not put so much emphasis on homework as the necessary path to success. Instead, by modeling personal responsibility and growth through the time management or organization required to complete homework assignments, teachers can begin to change student attitudes towards completion of homework. A common belief is that when children work hard, they will achieve good marks. Developing a good work ethic involves being responsible and the idea of giving out external rewards, such as grades as motivation, seems to defeat the purpose. But, if a child’s
motivation is external rather than internal, homework isn’t even fostering personal responsibility, which educators cite as one of its virtues (Xu & Corno, 1998). If the motivation is rewards such as money, parents’ acceptance, or being on the top of the class chart, the child isn’t developing their own sense of personal responsibility.

Overwhelmingly, the most discussion can be had about the data gathered about student homework completion rates as compared to assessment results. It is evident that homework completion is not a good indicator of assessment scores. While some correlation exists, most of the variation comes from other factors. Therefore, there are a multitude of other factors that must be considered when discussing student achievement. These factors include students’ specific learning needs as well as influences from previous teachers.

Within schools, there seems to be an increasing number of students classified with some type of learning disability. These students, when classified, are each provided with an Individualized Education Plan (IEP). Within these plans, teachers are provided with what each student’s specific learning needs are as well as accommodations that must be provided to the student. With the increase of students with an IEP, it does not seem surprising that the subgroup of students with a disability had the lowest R² value. For many students with an IEP, the traditional types of homework are just not effective. Most homework assignments, especially in mathematics, are typically paper and pencil assignments which require a student to practice certain skills over and over. In recent decades, studies have been done on the way students learn and results have shown that not only are there many different learning styles, but there are also many different intelligences and ways students learn. John White (2008) discussed Dr. Howard Gardner’s suggestions that the traditional notion of intelligence based on I.Q. testing is far too limited. White noted Gardner’s proposal of eight different intelligences that account for a broader range of potential. These intelligences are linguistic
intelligence, logical-mathematical intelligence, spatial intelligence, bodily-kinesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence, and naturalist intelligence. White suggests that we must place equal attention on individuals who show gifts in other intelligences. Therefore, differentiation has become a popular buzz-word within educational communities.

In order to attempt to meet the needs of all the students in a particular classroom, one must first understand and respect that not every student within that class will learn and understand things in the exact same way. As Marzano and Pickering (2007) discussed, there are effective ways to ensure that homework assignments are purposeful and at the appropriate level of difficulty for each child. By giving each student some choice in their assignments, teachers can allow each student a certain level of freedom in expressing their specific intelligences. For example, musical intelligent students may be able to develop a song that helps them, as well as others, remember mathematical formulas or properties. A student with bodily-kinesthetic intelligence may be able to develop a dance or body motions to remember the meaning of slope. By allowing students a license to express a little creative freedom, learning has instantly become fun for everyone involved. Students would be more engaged and learning would not seem like such a bothersome activity. While other obstacles would still likely exist, the attitudes towards learning would begin to change.

It seems likely that students could begin a new school year or semester with previous thoughts and ideas about how school should and should not be conducted. These thoughts come from a variety of sources such as friends, family, and also past teachers. For as many teachers that exist in the world, there are just as many different styles, policies, and procedures when it comes to classroom requirements. A high rate of incomplete homework could be influenced by the expectations of teachers from previous school years. For some
students, a teacher who did not assign much homework in previous years might cause a student to expect little to no homework later in their school careers. On the contrary, if a student had a prior teacher that assigned too much homework, the student may have been turned off to the idea of completing homework on a regular basis.

Cultural factors can also play an important role for teachers and students alike. With an ever-changing and diversifying country, there has been an increase in students who do not speak English. With this increase, there have been many barriers to learning that have occurred. Teachers and school districts have been forced to find ways of communicating with a population that cannot speak or comprehend the English language. The ability to communicate is a vital role in education. It is difficult for a person to learn something when he or she cannot understand the language which is being spoken. For this reason, homework becomes a daunting task for English Language Learners (ELL). In many instances, these students cannot read or understand directions that are given on a particular assignment. Furthermore, the same issue arises on state testing as well as standardized testing. The increase in ELL students has prompted testing boards to create assessments in students’ native languages to insure that the assessments are truly testing content knowledge as opposed to understanding of the English language. For ELL students, their difficulty in reading and understanding the directions make success on assignments all the more difficult.

As education continues to change, there will continue to be obstacles for educators to tackle. It is imperative that educators continue to modify and adjust their current styles of teaching in order to continually affect the lives of the young people they encounter everyday. Without the attitudes and efforts of teachers to ensure all students are learning, learning will cease to exist within school systems and the common battles between teachers and students will continue to persist.
Conclusion

Based upon the literature and the study conducted, there seems to be little evidence that suggests that homework is essential to learning and success on assessments. For each reason that teachers have for assigning a particular assignment, someone could have as many reasons why the assignment might not be effective in attaining the desired results. There are simply too many other factors that have an impact on a student’s learning.

Considering the results of this study, it would seem to be beneficial to study the possible socio-economic factors that affect learning. Along with the ideas already discussed previously, many educators believe that a certain degree of child apathy that is evident in everyday life within a school is directly related to family environment at home. Secondary education is a multifaceted process that has to be studied from various angles within an integrated approach. It cannot be observed in isolation from various sociological, political, financial, or familial aspects that influence its affect in many ways. It really seems unlikely to investigate all of these facets simultaneously. This is evident from prior studies done. Much of the research that has already been conducted has been too focused on one or two factors involved in learning. The scope which is required to view all of the factors at once does not seem plausible. Until someone can successfully take many different research findings and compile them into one comprehensive finding, there will continue to be disagreements in the effect and influence of homework on learning.

Finally, future research could focus on some of the other variables associated with student achievement. For example, student personality characteristics, organizational methods, peer group pressure, and teacher personalities and style can be looked at. All of these things that were mentioned can and do influence the evolution of motivational characteristics that each student acquires throughout their journey through the educational
system. All of these factors could have major repercussions in a student’s final performance and therefore in his or her potential academic success or failure.
References


Appendix A: Teacher Survey

As part of my research for my graduate program, I am doing a study on homework. Please take the time to respond as candidly as possible to the following questions. Your time is much appreciated.

1. Think of the class that you feel the most successful with in terms of homework. What math class is it? (e.g. Algebra 1, Calculus, etc.)

2. How do you choose your homework each night (if any)?

3. Is it usually from the textbook or something else?

4. How long do you think most kids in your class spend on this work each night?

5. How do you grade this homework?

6. Do you collect it or just glance to see if students attempted it?

7. Do you have students exchange their work?

8. How does homework factor into their final grade (e.g. homework is 25% of a students’ grade) and is it always the same?

9. How many times a week does your class meet and for how long?

10. How much time in each class do you usually spend going over homework?

11. Most importantly, how do you go over homework (if at all)?

12. Overall, are you happy with your system? If there are places you aren’t quite happy with your system, what are they?

13. What is your purpose of homework?

14. Do you have ideas that you don’t use in your class but want to try?

15. Do you have thoughts about homework that aren’t addressed above?

16. Do you philosophically disagree with homework?

17. Are there any other comments you would like to add?
Appendix B: Student Survey

Directions: Please circle the choice that most accurately describes you.

1. I complete all of my weekly homework assignments.

2. I feel that the amount of homework given is ____________.
   a. Too Much     b. Just Right  c. Too Little

3. My parents/guardians assist me with my homework.
   a. Never        b. Rarely       c. Sometimes       d. Always

4. The weekly homework is too difficult or requires too much help from my parents/guardians.
   a. Yes          b. No

5. I spend _______ each week on my math homework.
   a. < 1 hour     b. 1 – 1.5 hours c. 1.5 – 2 hours d. > 2 hours

6. I think this amount of time is reasonable.
   a. Yes          b. No

7. How do you feel about doing homework?
   a. I’m fine with it        b. It’s okay when someone helps
   c. It makes me feel discouraged d. I hate it

8. I feel teachers are unfair and give too much homework.
   a. True          b. False

9. Activities such as music or sports are more important to me than doing homework.
   a. True          b. False

10. Someone checks my homework for me when I am done.
    a. True          b. False

11. I think doing homework helps me get ready for my tests.
    a. True          b. False

12. On a scale of 1 – 5, 1 being “hate it” and 5 being “really enjoyed it”, how much do you enjoy math? __________

13. When you fail to complete an assignment, what are some of the reasons why?
Appendix C: Parent or Guardian Survey

Homework is sometimes a hated word but it is an important link between school and home. Teachers use homework to help students understand and review the work that has been covered in class or to see whether students understand the lesson. Please complete this short homework survey in order to assist me in developing a meaningful approach to homework assignments. Please send back to school with your child when you are finished. Thank you for your time.

1. Is a parent/guardian home after school?  
   [ ] Yes  [ ] No

2. Does a parent/guardian work outside the home?  
   [ ] Yes  [ ] No

3. What time does a parent/guardian get home from work?  
   [ ] 1—3:30 pm  [ ] 4—6 pm  [ ] 6:15—7:30 pm  [ ] 7:45 pm—8:00 am

4. What does your child do after school? (Circle all that apply)  
   Play  Study  Practice Music  Watch TV  Computer/Video Games  Chores

5. Does your child have a set time for homework?  
   [ ] Yes  [ ] Sometimes  [ ] No

6. Is homework done in the same place every day?  
   [ ] Yes  [ ] Sometimes  [ ] No

7. How many times a day do you have to tell your children to do their homework?  
   [ ] 3+  [ ] 2  [ ] 1  [ ] none

8. How do you know when your children have homework?  
   [ ] I ask  [ ] They tell me  [ ] Teacher sends home a schedule  [ ] Never know

9. Where are you when homework is being done?  
   [ ] Close by  [ ] In house  [ ] At work  [ ] Other __________________________

10. What are you doing while your child is doing homework?  
    [ ] Helping child  [ ] Preparing food  [ ] Cleaning house  [ ] Watching TV  
    [ ] Other __________________________________________________

11. Do you think your child is just like you were about homework?  
    [ ] Yes, I usually enjoyed my homework  [ ] Yes, I usually hated doing homework  
    [ ] No

12. When I was in school, I had someone to help me with homework.  
    [ ] Yes  [ ] Sometimes  [ ] No

13. If you answered yes or sometimes, who helped you?  
    [ ] Parent  [ ] Other relative  [ ] Older child  [ ] Other __________________________

14. Any other comments you would like to share: ______________________________