MISSING ASSIGNMENTS AND CHEATING ON MATHEMATICS HOMEWORK

__________________

Educational Research Project

Presented to

The Graduate Faculty

University of Wisconsin-Platteville

__________________

In Partial Fulfillment of the

Requirement for the Degree

Master of Science in Education

__________________

By

Renee J Vieau

2011
MISSING ASSIGNMENTS AND CHEATING, ON MATHEMATICS HOMEWORK

Approved by Leigh Monhardt August 2, 2011
Paper/Project Advisor
Missing Assignments and Cheating, on Mathematics Homework

Renee J. Vieau

Under the Supervision of Leigh Monhardt, Ph.D.

ABSTRACT

The exploration of missing assignments and increased instances of cheating, regarding one group of middle school mathematics students, gives direction to this paper. Occurrences of skipping homework and subsequently copying or cheating on it to earn high scores was confirmed by students and witnessed by school staff. A plan to change the system of scoring mathematics homework was developed. Students would complete non-scored independent homework and the next day, after addressing possible questions regarding that independent work, a scored “in-class” quiz based on the objectives of the independent work, would be completed by students. The quiz score would count as the homework score for the particular assignment. Data was collected and examined regarding quarterly class average percentages/grades, yearly average homework percentages/grades, total number assignments, total number of late assignments, late assignments due to absences and missing assignments. Students completed higher percentages of homework with greater understanding of mathematical concepts after implementation of the in-class quiz system based on the data and anecdotal information from students.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE PAGE</td>
<td>i</td>
</tr>
<tr>
<td>PROPOSAL APPROVAL PAGE</td>
<td>ii</td>
</tr>
<tr>
<td>APPROVAL PAGE</td>
<td>iii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>iv</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>v</td>
</tr>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>• Statement of the Problem</td>
<td>2</td>
</tr>
<tr>
<td>• Purpose of the Project</td>
<td>4</td>
</tr>
<tr>
<td>• Definition of terms</td>
<td>4</td>
</tr>
<tr>
<td>• Delimitations of the Research</td>
<td>5</td>
</tr>
<tr>
<td>• Method of Approach</td>
<td>6</td>
</tr>
<tr>
<td>II. REVIEW OF LITERATURE</td>
<td>9</td>
</tr>
<tr>
<td>III. CONCLUSIONS AND RECOMMENDATIONS</td>
<td>12</td>
</tr>
<tr>
<td>IV. MY DATA FINDINGS</td>
<td>16</td>
</tr>
<tr>
<td>V. REFERENCES</td>
<td>19</td>
</tr>
<tr>
<td>APPENDIX A</td>
<td>22</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

According to a 2002 survey of more than 12,000 high school students by the Josephson Institute of Ethics, 8880 students admitted cheating in the past year at least once (Josephson & Metz, 2004). Homework has a place in the day of a student. Bruce and Singh (1996) stated, “Completion of homework improved, not only students’ grades, but also their scores on standardized tests” (Adoption.com, 2010). Research completed in the 1980’s, by B. S. Bloom, D. T. Tuma and F. Reif, shows that doing homework leads to greater learning (Palazzo et al., 2010). What students fail to realize, copiers and noncopiers, is that independent homework helps in the acquisition of skills to work with analytic problems (Palazzo et al., 2010). According to research conducted by psychologists Harris Cooper, PhD., James J. Lindsay, PhD., and Scott Greathouse, PhD. of the University of Missouri—Columbia and psychologist Barbara Nye, PhD. of Tennessee State University using middle school students found, students were more academically successful the more homework they completed; especially in grades six through twelve (Science Daily, 1998).

Due to many factors students do not complete the independent work assigned as homework, or cheat on daily work that was intended to be completed independently. According to researchers at the University of Kentucky in their article, “Motivation and Cheating during Early Adolescence,” students reported cheating because of the following:

- Worry about school
- Perceive their school as focused on grades and ability
- Believe they can obtain some sort of reward for doing well
- Attribute failure in school to outside circumstances
• Avoid deep-level cognitive processing strategies, such as trying different ways to solve a problem (Science Daily, 1998).

After considering why students might cheat, one needs to examine if a change in the format of how grades are earned needs to occur. To be considered is a system of not scoring the independent homework; but rather score an in-class quiz while under teacher supervision. The in-class quiz would be based on the previous day’s learning objectives. The independent homework would reinforce those same objectives. To help prevent cheating by looking at others papers, the teacher will use proximity (walking around room and between rows of desks, answering questions at the student desk) to discourage the situation of students looking at one another’s papers.

**STATEMENT OF PROBLEM**

Missing work due to incompletion and cheating was on the rise in my seventh grade mathematics class. Each day, in my Mathematics classes students have varying amounts of homework that is to be completed independently, it is due the next day at the beginning of class. Questions are addressed before correcting, then as a group we correct the current work, record scores, and several times a week the material is turned in for teacher review/comment. By their own admission, students have turned in fictitious scores, changed answers, overlooked answers that were incorrect, and said their work was complete when in fact it was not finished, often times skipping the story problems.

Students, in one middle school grouping, were assigned a total of 4996 homework assignments during the 2008-2009 school year. Of this total 314 assignments were late, with 228 of those late due to absences. The total missing was 53, which indicated that 1.06% of the overall late assignments were missing assignments.
The following year, as seventh graders, this same group of students was assigned a total of 4414 homework mathematics assignments. Of the total number, 336 of the assignments were labeled late overall, 199 of those late assignments were due to absences, and the number of overall late assignments considered missing assignments, increased to 119, which was 2.70% of the total homework assignments. The increase from 1.06% to 2.70% in the number of missing assignments was concerning. The rise in the number of students with overall late work rose from 6.29% to 7.61%.

On one particular day the second year over 50% of students admitted to resorting to cheating to have a completed assignment. This behavior appeared in more than one of their core academic classes. Teachers and administration witnessed students copying one another, as well as students reporting to the staff incidences of cheating. Students began to cheat at a higher rate than from the previous year, as observed by staff before school in the commons area.

When brought up for discussion in class, students admitted that they cheated. Students were offered an opportunity to share their thoughts on cheating in general. It was important for me to be objective and neutral so students would share their thoughts. Depending on how forthcoming or comfortable students were would dictate the level of specifics that could be discussed. Information could be shared as a group or privately in writing. There would be no consequences for lack of participation.

All students chose to participate. Many reasons were given for the perceived need to cheat; they thought it would give an advantage, students felt pressured by parents to get good grades, and with so many activities there just wasn’t time to get everything done. Opinions expressed by students were that cheating is of little or no consequence; the need was
perceived, so they cheated. Other reasons such as embarrassment due to asking questions in class, lack of time to complete homework, and just not wanting to do the work were the rational for cheating.

Explanations of what type of action they took varied. People asked for answers outright, shared their work for copying, or filled in answers when the teacher wasn’t looking. For some students, their participation consisted of allowing others to “see” their work that was completed. Occasionally, it may have been inadvertent as one student explained, “I just ask like what it means and sometimes I get a bigger answer than what I expected.” This student may not have specifically asked for an answer; but took advantage of the opportunity to get the answer.

The question arose, how to get students to complete their work without resorting to cheating? The questions to be addressed in this study:

1. Would a change in how the manner independent reinforcement homework is scored make a difference in student reported cheating?
2. Would an alternate form of assessment, such as a quiz taken in class under teacher supervision, result in a more complete showing of student knowledge of material taught?

**PURPOSE OF THE PROJECT**

The purpose of this project is to find a way to have students be responsible for assigned relevant homework, to have students to be able to demonstrate a deeper understanding of the underlying mathematical concepts, and to have students acquire the skills necessary for use in mathematics class, without resorting to various methods of cheating.
DEFINITION OF TERMS

Cheating for this discussion was defined as follows:

- Copying another student’s math assignment
- Turning in a false/inflated score
- Not completing the assignment and not admitting it as per class policy
- Changing answers on homework as the class corrected the homework

Proximity (use of location of teacher near student so student avoids/changes a behavior)

Middle level grades (grade six through grade eight)

Labeling used in data

- All late assignments (not ready at time of correction for whatever reason)
- Late/ab assignments (not ready due to student absence, included in all assignments)
- Missing assignments (number of all late assignments never turned in for score)

DELIMITATIONS OF RESEARCH

The information was gathered in a small rural school with up to fifty students per grade level. The group studied ranged from twenty-three to twenty-six students per grade level over the course of the three academic school years being studied. There were either one or two sections of each learning group per grade level. Many of the students have had the same classmates every year since kindergarten. Over the three academic years being researched, due to students moving to other various districts, the total number of students taught by the researching teacher was twenty-nine students. Twenty-three of the students had attended classes together since elementary school; which were traditional self-contained
elementary classes. Six of the total students attended at least portions of the three studied academic school years of the middle level grades being researched.

Upon entering the middle level grades, students have the same teacher for mathematics grade six through grade eight. The teacher was also utilized as a resource person when this group of students was in grades four and five. Due to the small population of a rural school, a majority of the students participate in multiple extra-curricular activities year round; including youth sports-school league, community league and travel teams from two to five times a week, Community and or Pep Band, religious activities on Wednesday evenings, as well as meeting daily family obligations like helping to farm or take care of livestock.

Grades that students earn are weighted. The weighted categories used to calculate grades are as follows: 10%-vocabulary, 10%-activities/participation, 30%-homework, 50%-tests.

METHOD OF APPROACH

To begin this educational project a review of literature on trends in homework and cheating in the classroom with a focus on the middle school aged student will be conducted. A second review of literature relating to research studies will be conducted. An examination and collection of data of past records from the same group of students as sixth, seventh and eighth graders, regarding late and missing assignments will be conducted. Discussions about the work habits of students will be conducted with teachers and administration. Discussions related to homework and cheating will be conducted with students and the instructor.

The method to be tried will be explained to parents at a parent meeting the night of the district middle level meeting and discussed again at Parent-Teacher conferences in the
fall of 2010-2011 school year. Procedures will be outlined with students in class. Data
gathered in the form of general findings will only be used with written permission from a
student’s parents.

The normal routine in this middle level mathematics class is to go over questions, as a
group, from the previous day’s assignment, utilizing the SMART Board technology.
Students then, turn in scores and periodically turn in the daily assignment for teacher review.
New concepts are introduced or extended and the students begin a new assignment. Usually,
there is class time available so students can get help if they have areas of concern. The
teacher is available throughout the day during prep periods that coincide with some student
study halls to address questions as they arise.

The problem that exists is whose work is being accessed. Students admit to copying
the work of others, sharing their work for others to copy, and filling in/changing answers if
given the opportunity. The opportunity needed to be eliminated or at the very least reduced.

The classroom procedure of correcting reinforcing homework will be revamped as
follows:

1. Before school, students should come in for help to address questions that have
   arisen from the previous day’s homework.
2. Correct current assignment as a group utilizing technology in the classroom.
3. Questions may be asked for clarification purposes before, during, or
   immediately after the correcting of reinforcing practice work.
4. Students will independently complete a daily quiz, constructed by the teacher,
   based on the homework that was assigned to reinforce the objectives of the
   previous day’s lesson.
5. The quiz will be taken by each student independently, in class, under the teacher’s supervision, proximity to students will be used to prevent “wandering eyes.”

6. A student that is absent will take the quiz upon his/her return, once questions have been addressed and the practice work has been corrected.

7. Quizzes based on the previous lesson objectives, constructed by the teacher, will be administered via the SMARTBoard technology utilized in this classroom or in a written format handed to the student, if student need dictates.

8. Quizzes should take about 5-15 minutes to complete.

9. Students must show all work necessary to solve the question asked. Points are assigned for showing the process of completion and for correct answer. This method of correcting is familiar to students since it is their third year of instruction with this teacher.

10. To expedite the time taken in administering a daily quiz, and to verify work completion, all quizzes will be attached to the previous night’s homework and turned in to the teacher for verification of work completion and the recording of quiz scores.

A written form of the information regarding the upcoming classroom procedural change was sent to each student’s family, including a verification of receipt page. The verification of receipt page was returned to the teacher. All portions of the project were presented to the building principal, as this is a problem discussed in the past. The findings will be summarized and recommendations made.
CHAPTER 2
REVIEW OF LITERATURE

Over time, the prevalence of cheating has not diminished; as far back as two thousand years ago, examiners of civil service exams, in Imperial China, had to go to great lengths to curb cheating (The American Physical Society Journal, 1998). In a national survey in 1998, four out of five top students admitted cheating at some point during their educational career (Education Digest, 2009). 97% of high school students surveyed by Rutgers University in 2001 admitted to cheating (Ray, 2008). Hongyan Ma, Eric Yong Lu, Sandra Turner and Guofang Wan found in the 1998, 2002, and 2004 Josephson Institute of Ethics surveys that cheating increased as well.

70% of high school students reported cheating, while 54% of middle school students reported the same behavior in 1998 (Ma, et al., 2007). In a ten year period, from 1992 to 2002, the number of high school students who admitted cheating on an exam in the past year had increased from 61% to 74%. The percentage of those who admitted cheating more than once, also increased, although more slowly from 46% in 1992 to 48% in 2002 (Ma, et al., 2007). Evidence clearly shows that serious cheating begins in the middle school, grades six through eight, and escalates during the higher high school grades, 10th, 11th, and 12th grades, because that’s when the stakes are the highest (Hayden, 2008).

When questioned, many students did not see what was wrong with cheating on homework. According to Dan McCabe and Daniel Katz, surveyed high school students feel it is important to have good character; at the same time most report they have cheated (McCabe & Katz, 2009). In an article by Wayne Kalyn, McCabe further explains, “Honest
kids feel they have to keep up with the Joneses when it comes to grades. So if a bunch of kids decide to cheat, other kids may follow in their footsteps” (Kalyn, 2004).

The issue faced is challenging. Parents pressure their children to achieve high grades, to the point the child believes he/she needs to cheat to achieve those high grades, and then parents threaten lawsuits when their child is punished for cheating (McCabe & Katz, 2009). Kalyn states, “Parents themselves are partly to blame by pushing children too hard” (Kalyn 2004). Often teachers are fighting a losing battle illustrated by one student’s statement, “Cheating is the American way. Businessmen do it; politicians do it, why not students” (McCabe, 2001).

It has been shown that students are consistently investing their imaginative abilities into inventing new and more mischievous ways to generate top-notch work without putting forth the effort to complete the work on their own (Ray, 2008). In some cases, faculties are unfamiliar with ever evolving cheating strategies or methods, and current ways to prevent the cheating (Hayes et al., 2006). Rather than being used for communication, students are now using cell phones to cheat by using features such as the camera. Text messaging is also used as a form of cheating on in-class work or exams (University of Alabama Computer and Applied Technology Program, 2006). Donald McCabe, professor of Organization Management at Rutgers Business School found over the past several decades, there is evidence that cheating has evolved and increased. Internet accessibility is likely to intensify the problem (McCabe, 2001). The issue of cheating is exacerbated by the ease of gaining information from the computer and other electronic devices such as the smartphone, which has internet capabilities (Hayden, 2008).
Consequences linger for not learning the life lesson of doing one’s own work. In a study examining cheating at Massachusetts Institute of Technology (MIT) researchers found disturbing consequences for chronic homework copiers: In a two-semester sequence, students copying more than 30 percent of their assignments were four times more likely to drop out of classes than their classmates who did their own work during the same time span (Toporek, 2010). In 2007, Southern Illinois University researchers found of 154 students surveyed, students who plagiarized, viewed themselves likely to break rules while in the workplace, cheat on spouses and engage in illegal activities (Novotney, 2011). Fraud and cheating is becoming all too common in schools, and colleges are screening students more carefully before accepting them as freshmen. Colleges are randomly using background checks, private investigators, police databases, and plagiarism checks when evaluating people considered for college admission (Pytel, 2007). Cheating does not end at graduation...resume fraud is a problem for many employers. Cheating is a problem we continue to face. It leads to weak life performance (Educational Testing Services, 1999).

It is difficult to reduce the students’ perceived need to cheat; however, reducing perceived opportunities to cheat is somewhat easier (Hayes, et al., 2006). Reducing the opportunities to cheat, sends the message that academic honesty is important. Utilization of strategies such as multiple versions of tests, and basing tests on essay questions rather than short answer may be helpful (McCabe, 2001).

The culture of schools needs to change. The acceptance of cheating as a matter of course should be replaced and replace it with one that puts a premium on academic honesty (McCabe, 2001). School districts must support teachers in fighting cheating by incorporating high standards policies and following through on those policies. Teachers need to clarify
expectations for students and communicate with parents. Open communication regarding cheating can help schools send a message that cheating is wrong and will not be tolerated (McCabe, 2001).

CHAPTER 3

CONCLUSIONS AND RECOMMENDATIONS

1. Would a change in how the manner independent reinforcement homework is scored make a difference in student reported cheating?

2. Would an alternate form of assessment, such as a quiz taken in class under teacher supervision, result in a more complete showing of student knowledge of material taught?

A particular group of students freely admitted to cheating often during their seventh grade school year. I needed to understand better why student’s had a perceived need to cheat in order to have completed homework. The students and I took the opportunity to discuss cheating; the how, the why, and what we could do about it.

The predominate reason for copying someone else’s homework or changing answers when possible, was little time to complete homework due to so many obligation such as participation in multiple sports at the same time, religious classes on Wednesday nights, family obligations such as barn work, and personal choices such as texting friends and playing video games. Students felt a great deal of pressure to do well, while wanting to find an easy route of achieving those high grades.

We discussed the consequences of cheating and debated the merits of the act. The majority of the students felt they had few options and cheating was the only alternative to be
able to achieve the high grades their parents expected of them. Many students stated A’s were the expected grade for all subject areas in their family.

Students did not have suggestions to stop cheating other than work harder; which is too vague of a plan to be able to carry out. I introduced the system I was going to implement for the eighth grade year of mathematics. All eighth grade Algebra students would be assigned homework to be independently completed; and after correcting the independent homework the following school day; students would take a short quiz based on the lesson objectives, to attain a “homework score.”

Students would staple the independently completed homework to the quiz and turn it in to me for review. The question was asked, “What if we’d like to do corrections to raise the grade;” which I encourage. It was determined students would come to the math room to correct work and turn it in for half credit on the quiz. This correction practice was consistent with previous classroom procedures. Error analysis is a life skill incorporated into each math class.

A student that did not complete the homework portion, would fill out a missing work “pink” slip, as is the middle school policy regarding late work. She/he would be required to complete the quiz with the rest of the class and turn in whatever portion of homework that was completed. There would NOT be a score deduction due to the incomplete assignment. The quiz score would stand as is.

We began the process by the end of the first full week of the fall term. Several students commented they liked the new system, because they could get questions addressed before the quiz. They said they had an opportunity to make adjustments in how they were
completing the work and therefore correctly answer questions on the quiz. One student did comment that she/he felt this system was doubling the work needed to get a score.

Students had asked questions in class previously, but as often is the case with middle schoolers, some students did not want to draw attention to the fact that they were unsure of what to do. But, an interesting thing happened, a wider variety of students began speaking up, asking questions, and getting up using the SMARTBoard to demonstrate and explain how the work was completed. Once a student can explain how a problem is solved and why it works like it does, I believe the student has made the concept his/her own. Mathematics concepts build on each other; and when a student has the ability to explain a concept of how and why it works, he/she can draw on that information in the future when problem solving.

The semester continued on and I monitored the homework completion and quiz scores. Students would talk about how the quiz score was higher than the way we scored homework in the past. Students, that in the past, skipped word problems began to attempt completing the work. I spoke to several students and they told me they felt they could try because it wasn’t going to be marked wrong and they had a chance to ask questions before the quiz if it was wrong. The opportunity to “fix it” allowed students a chance to clarify issues before taking the quiz. Also by the end of the year, students said they felt better prepared for math the next year because they actually did the work and believed they understood the material.

As sixth graders, average overall grades ranged from an overall B- (86%) at the beginning of the year, to an overall A- (93%) by year’s end. The next year grades dropped into the B- (85%)/C- (79%) range overall. After the implementation of the homework/quiz
change, the overall average grade for the students as eighth graders settled in at the solid B (87%) range.

Average homework grades, for the students as sixth graders, began at the B- level (86%). The following year, as seventh graders, their grades dropped to a homework average of 81% or a C. After implementation of the homework/quiz system of earning homework scores, the average homework scores increased to 87% (B). Grades on homework/quizzes rose; and students demonstrated a consistent knowledge and skill base from which to draw on when problem solving.

The scored “in class” quizzes utilized to assess acquisition of algebra skills and concepts were an effective method to reduce instances of cheating in this classroom grouping. Students said the discussions we had about cheating were helpful. Regardless of the fact that many had cheated they had since quit at least in this class because they didn’t feel the pressure of the homework. Retention of the homework by the teacher revealed students rarely skipped any of the homework, and a greater number of students asked questions either before school, before class, or during correcting of the independent homework portion of class. Many students expressed their thoughts regarding the fact that they felt less pressure to cheat since everyone was taking the quiz in class and they utilized the opportunity to ask questions more often than in the past two academic years.

This information was shared with the school principal. Together we decided to continue this method and monitor the outcome to determine if in fact cheating was reduced for the students taught by this teacher.
CHAPTER 4

MY DATA FINDINGS

As sixth graders, this group of students were late on 6.29% of all assignments, 4.56% were late due to an absence. 1.06% of the total late assignments were never completed, thus labeled missing assignments.

<table>
<thead>
<tr>
<th></th>
<th># of assigns</th>
<th>all late</th>
<th>late/ab</th>
<th>missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>q 1</td>
<td>1248</td>
<td>74</td>
<td>47</td>
<td>9</td>
</tr>
<tr>
<td>q 2</td>
<td>1056</td>
<td>64</td>
<td>40</td>
<td>11</td>
</tr>
<tr>
<td>q 3</td>
<td>1364</td>
<td>105</td>
<td>88</td>
<td>13</td>
</tr>
<tr>
<td>q 4</td>
<td>1328</td>
<td>71</td>
<td>53</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>4996</td>
<td>314</td>
<td>228</td>
<td>53</td>
</tr>
</tbody>
</table>

All late assignments (not ready at time of correction for whatever reason)
Late/ab assignments (due to absence, included in all late assignments)
Missing assignment (number of all late never turned in for score)

The overall class average percent/grade earned for each quarter follows:

- Quarter 1: 85.93% Grade B-
- Quarter 2: 88.54% Grade B+
- Quarter 3: 88.28% Grade B
- Quarter 4: 92.61% Grade A-

The following year as seventh graders, the number of late assignments increased to 7.61%. The overall number of assignments late due to absences remained consistent at 4.51%. The number of missing assignments more than doubled; moving from 1.06% to
2.70%. The overall class average percent/grade earned for each quarter showed a lowering of grades earned by more than one grade level.

<table>
<thead>
<tr>
<th>2009-2010</th>
<th># of assigns</th>
<th>all late</th>
<th>late/ab</th>
<th>missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>by quarter</td>
<td># of assigns</td>
<td>all late</td>
<td>late/ab</td>
<td>missing</td>
</tr>
<tr>
<td>q 1 24 students</td>
<td>936</td>
<td>61</td>
<td>24</td>
<td>46</td>
</tr>
<tr>
<td>q 2 23 students</td>
<td>1311</td>
<td>104</td>
<td>39</td>
<td>46</td>
</tr>
<tr>
<td>q 3 24 students</td>
<td>1207</td>
<td>103</td>
<td>38</td>
<td>66</td>
</tr>
<tr>
<td>q 4 24 students</td>
<td>960</td>
<td>68</td>
<td>18</td>
<td>41</td>
</tr>
<tr>
<td>TOTALS</td>
<td>4414</td>
<td>336</td>
<td>199</td>
<td>119</td>
</tr>
</tbody>
</table>

All late assignments (not ready at time of correction for whatever reason)
Late/ab assignments (due to absence, included in all late assignments)
Missing assignment (number of all late never turned in for score)

The overall class average percent/grade earned for each quarter follows:

- **Quarter 1**: 86.85% Grade B
- **Quarter 2**: 84.80% Grade B-
- **Quarter 3**: 78.30% Grade C-
- **Quarter 4**: 80.58% Grade C

As the number of late/missing assignments increased the percentage/grade level decreased. The number of missing assignments due to absence remained relatively level.

Over 50% of the seventh grade students admitted to cheating on more than one occasion.

After the implementation of the revised homework/quiz system, the percentage of the number of total late assignments dropped to 4.95%, those late due to absence dropped to 3.79% and total missing decreased to 2.32%. Two of the eighth grade students admitted to cheating a limited number of occasions. Both students stated that once they were
comfortable with the new system they did not feel the need to cheat and discontinued the practice. Students also stated by year’s end they felt they understood the material better than previous years in mathematics. Overall percentage of grades rose from the previous year.

<table>
<thead>
<tr>
<th></th>
<th>2010-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
</tr>
<tr>
<td>by quarter</td>
<td></td>
</tr>
<tr>
<td>q 1</td>
<td></td>
</tr>
<tr>
<td># of assigns</td>
<td>1174</td>
</tr>
<tr>
<td>all late</td>
<td>33</td>
</tr>
<tr>
<td>late/ab</td>
<td>25</td>
</tr>
<tr>
<td>missing</td>
<td>7</td>
</tr>
<tr>
<td>q 2</td>
<td></td>
</tr>
<tr>
<td># of assigns</td>
<td>975</td>
</tr>
<tr>
<td>all late</td>
<td>60</td>
</tr>
<tr>
<td>late/ab</td>
<td>44</td>
</tr>
<tr>
<td>missing</td>
<td>28</td>
</tr>
<tr>
<td>q 3</td>
<td></td>
</tr>
<tr>
<td># of assigns</td>
<td>875</td>
</tr>
<tr>
<td>all late</td>
<td>60</td>
</tr>
<tr>
<td>late/ab</td>
<td>49</td>
</tr>
<tr>
<td>missing</td>
<td>28</td>
</tr>
<tr>
<td>q 4</td>
<td></td>
</tr>
<tr>
<td># of assigns</td>
<td>775</td>
</tr>
<tr>
<td>all late</td>
<td>35</td>
</tr>
<tr>
<td>late/ab</td>
<td>26</td>
</tr>
<tr>
<td>missing</td>
<td>25</td>
</tr>
<tr>
<td>q 1 25 students</td>
<td></td>
</tr>
<tr>
<td>q 2 25 students</td>
<td></td>
</tr>
<tr>
<td>q 3 25 students</td>
<td></td>
</tr>
<tr>
<td>q 4 25 students</td>
<td></td>
</tr>
<tr>
<td>3799</td>
<td>188</td>
</tr>
<tr>
<td>4.95%</td>
<td>144</td>
</tr>
<tr>
<td>3.79%</td>
<td>88</td>
</tr>
<tr>
<td>2.32%</td>
<td></td>
</tr>
</tbody>
</table>

All late assignments (not ready at time of correction for whatever reason)
Late/ab assignments (due to absence, included in all late assignments)
Missing assignment (number of all late never turned in for score)

The overall average grades for students by quarter are as follows:

- **Quarter 1**: 86.78% Grade B
- **Quarter 2**: 85.52% Grade B-
- **Quarter 3**: 86.88% Grade B
- **Quarter 4**: 87.39% Grade B

Each academic year’s homework average scores are as follows:

| homework average score 2008-2009 | 85.85% | B- |
| homework average score 2009-2010 | 80.51% | C  |
| homework average score 2010-2011 | 86.56% | B  |

After falling during the 2009-2010 school year to an 81%, average homework scores rose during the final year by one grade level to 87%.
References


http://findarticles.com/p/articles/mi_7452/is_200704/ai_n32227052/


APPENDIX A

September 1, 2010

Dear 1st Grade Parents/Guardians,

To have our students be responsible for the material we are teaching in Algebra I, Concepts & Skills, I am going to try a different approach to the homework for that subject.

Last year we had a student make up his homework, but this student was far behind in the material. He would often forget to do his homework and when he did, it was often incomplete or they would copy from a friend. In both cases, his progress suffered as well as his learning the material.

As the 1st grade begins, we will begin each class going over the material covered in the previous lesson. We will then take a quiz to assess the students' understanding of the material. The quiz will be based on the material covered so far. The students will have the opportunity to retake the quiz if they need to.

Please do not attempt to help your child with the homework. The students are learning problem-solving skills, which is a valuable lesson. The students will have the opportunity to retake the quiz if they need to.

Please feel free to contact me if you have any questions or concerns regarding this new approach.

Sincerely,

Karen Yoon