"If Only They Would Do Their Homework:" Promoting Self-Regulation in High School English Classes

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Abstract:

This study examined ways that seven high school English teachers attempted to promote higher levels of self-regulation and students' responses to their efforts. Researchers met with teachers once a week for three months to design higher-order reasoning questions for assignments and quizzes, review student responses and plan instructional strategies. They functioned as participant observers in these sessions examined student homework logs, and interviewed students and teachers. Teachers' responses emphasized the value of collaboration and asking higher-order reasoning questions. Although students continued to articulate performance goals that focused on grades and rewards, their responses demonstrated greater awareness of self-regulation and goal setting. Most students were able to use the language of self-regulation to describe relations among goals, effort, and outcomes. Results of this case study suggest that efforts to promote self-regulation more explicitly within the fabric of lessons might be productive, especially if offered for an extended amount of time.

Article:

Among the frustrations often expressed by high school English teachers are that "these students are just not motivated" and "if only they would do their homework." These familiar laments represent a common assumption - that when students do not perform as well as they might, they should just try harder. Most teachers want students to accept more responsibility for their own learning. High school students, in contrast, often suggest that if assignments were more challenging or if the expectations were more explicit, they would invest more effort in their work. Interestingly, research suggests that teachers and students are both correct. Students perform better when they take more responsibility for their work and when assignments are more challenging (Hagen & Weinstein, 1995; Pintrich, 1995; Zimmerman, 2000).

This study examined the responses of students and teachers to an intervention designed to improve the quality of assignments and enhance student motivation in seven English classes. As part of a comprehensive school reform initiative at one southern high school, teachers and technical assistants decided to address these issues in a connected fashion. They began by reviewing the available research on student motivation. Encouraged by studies showing the benefits of promoting "self regulation," they developed an intervention to promote higher levels of student involvement in lessons and homework assignments. This research report chronicles the ways they developed this intervention and presents the results of their efforts.

Theoretical Framework

Grounded in social cognitive theory, self-regulation is self-generated thoughts, feelings, and actions used to attain goals (Zimmerman, 2000). According to social cognitive theorists, the interdependent relationship among cognitive, behavioral, and environmental factors helps to improve self-regulation. In a cognitive sense, students must examine goals, self-efficacy, metacognition, strategic knowledge, perceptions of value, and affect. As

behavioral factors, self-monitoring, self-judgment, and self-reactions must be considered. The environmental factors that also must be considered within self-regulation are found within the classroom environment or in the student's outside study environment (Schunk, 2000). With recognition of these factors, learning becomes an "open-ended process that requires cyclical activity on the part of the learner" (Zimmerman, 1998, p. 2). This cyclical activity occurs in three phases. Forethought is the beliefs that students have about learning. Volitional control is the processes that affect concentration during the learning process, and self-reflection requires that students examine thoughts and the process of learning after completing an activity.

How Goals Impact Self-Regulation

Setting and meeting goals are particularly vital to the secondary education classroom. Students who are skilled at self-regulation report having mastery goals rather than performance goals. According to Zimmerman (1998), the self-regulated learner sees the intrinsic value of learning and feels more confident in accomplishing learning goals than students who lack skills in self-regulation. Attaining these goals becomes intrinsically motivating for students (Zimmerman, 2000). Students with mastery goals in mind regularly choose challenging tasks for themselves, regardless of their ability levels. They demonstrate a high level of persistence when faced with difficult tasks, and have a much higher rate of using effective learning strategies. They master course material often because they focus on learning the content well and they value the importance of the learning process (Hagen & Weinstein, 1995). On the other hand, students who value performance goals over mastery goals focus on the outcome; the process is not relevant. These students choose not to spend as much time choosing, developing, and practicing effective learning strategies and accompanying tasks. Their chief goal is to make a good grade or to avoid failure (Hagen & Weinstein, 1995).

When students are self-regulating, they analyze an activity for its goals and relate them to their personal goals for learning. Afterwards, they devise a strategy on how to complete the task, determine which methods to use, and monitor how effective the methods are while they are using them. Methods that are not effective are discarded and replaced with those considered to be more effective. Important to note is the difficulty that students may experience in mastering goal setting and strategy implementation. Practice and reinforcement are key to successful strategy refinement. Once students recognize the impact of their learning methods, they begin taking more responsibility for their learning (Zimmerman et al., 1996).

Crucial to successful goal-setting by students is the realism of the goal. Students who have realistic goals and refine them as they gain feedback from self-monitoring become more aware of their feelings of efficacy (confidence in ability). They can examine areas of their studies with low self-efficacy as they point to areas in which they need to work. As students become more successful, self-confidence builds and becomes a motivator (Zimmerman et al. 1996).

Students and Self-Regulation

Students who self-regulate are generally interested in the topic at hand, prepared for class, and participate in class by asking questions and generating ideas and insights in the class discussion (Zimmerman & Paulsen, 1995). They conduct some of the following activities: keeping a study calendar, having a specific study location, setting up regular study periods, setting realistic goals, prioritizing tasks, saying no to distractions, and self-rewarding success. When completing homework and assignments, self-regulating students: clarify difficulties, self-question so that they can deeply understand assignments, make predictions about what will happen next, find main ideas, summarize readings, and relate work to prior knowledge and experiences (Zimmerman et al., 1996).

The Teacher's Role in Helping Students Self-Regulate

Teachers can help students acquire self-regulation skills by structuring their courses and practicing instructional methods that aid students in becoming self-regulators (Pintrich, 1995). In other words, self-regulation skills can be taught. By reflecting on what the coursework is, determining what skills students need to gain concepts, and assumptions that are tacit to the field, teachers assist students in learning (Zimmerman et.al., 1996). Students need direct instruction about the processes that help them learn content area information independently. By

teachers applying self-regulation models and teaching and practicing study skills, students will grow in their ability and confidence while self-regulating (Zimmerman et al., 1996). Furthermore, by modeling skills, teachers visually provide students who do not independently practice self-regulation skills correct procedures in doing so (Zimmerman, 1998). Teachers can also model thoughts about content and strategies so that students become knowledgeable of the learning requirements of the coursework and how students can self-regulate the content information (Pintrich, 1995; Zimmerman et al., 1996). On the other hand, while teachers can facilitate the acquisition of self-regulation skills (Zimmerman, Bonner & Kovach, 1996), most parents and students are unaware that these skills can indeed be taught; moreover, teachers may be so overwhelmed by the increasing demands of accountability that they do not consciously teach students the skills (Schunk & Zimmerman, 1998).

Teachers help students to become self-regulated learners by offering challenging tasks. Tasks that are challenging and interesting to students will stimulate student engagement. Beginning with tasks that students can accomplish, teachers immediately provide students with opportunities of success. Therefore, students are more likely to be persistent in their efforts while completing increasingly difficult tasks. Another way to assist students with challenging tasks is to identify methods students can use in problem solving. For instance, modeling skills in comparing/contrasting, using analogies, and paraphrasing can encourage students to take responsibility for their own learning. Once students feel that their efforts are not in vain, they become more likely to attempt learning (Hagen & Weinstein, 1995). Additionally, by effectively instructing students in challenging curriculum and promoting self-management during difficult tasks, students learn self-regulation skills that benefit them across varied content areas (Belfiore & Hornyak, 1998).

Keeping records of students' progress is another method by which students can determine if their self-regulation skills are effective. Grades are not necessarily the best record because they are global and inconsistent. An "A" on an essay, homework assignment, or test can have different meanings to a variety of people. Teachers need to help students see their absolute performance; they should establish the level of proficiency to be reached and explain how to reach the objectives. With such practice, teachers can assist students in shifting from performance goals to mastery goals. Teachers' feedback can be provided to students to help determine if their self-monitoring is accurate (Schunk, 2000; Zimmerman et al., 1996). More specifically, teachers can give students a set of organizational questions for a new task. As an example, they can give students questions to guide comprehension monitoring. When students are comfortable with structured self-monitoring, they can begin to develop their own protocol. Teachers can gauge students comfort levels with self-monitoring as they will be able to generalize the information from topic to topic (Pintrich, 1995). Teachers can also help students make connections in various tasks that are routinely used in the classroom. By giving daily assignments and weekly quizzes, students can monitor their self-regulation development before taking an exam that largely affects their grade (Zimmerman et al., 1996).

Operalization of Terms

Throughout this study cognitive skill is examined by students making better predictions on their actual quiz grades, a raise in quiz grade scores, and spending more time on task in enriched classroom discussion. Motivation is examined as students' ability to express personal goals, higher expectations in their work and the raised self-efficacy, or belief that they can complete the work given to them by teachers.

The Case Study

Seven English teachers and 42 of their students participated in the study. Each teacher implemented the intervention in one class of their choosing. The school, located in a medium-sized city in the Piedmont Triad of the Carolinas, had at the time of the study 1075 students enrolled with 777 (72%) of them categorized as minority descent (System Statistics). The school was organized by a four-by-four block schedule.

As a part of the Comprehensive School Reform Grant, the technical assistance team for school improvement invited all teachers to participate in a self-regulation project. The researchers worked with English Department teachers who expressed initial interest. Of those teachers, seven made a commitment to participate in the research project. These teachers agreed to meet for three half-day inservice workshops where research team

members introduced the framework for the project (self-regulation model) (Zimmerman et al., 1996 and Marzano's et al., *Dimensions of Thinking*, CROP 2001). Committed teachers met in groups of two or three according to planning periods for three months for formal planned meetings. However, research members met individually with participants weekly to identify needs for resources, answer questions, and discuss questioning strategies.

Participants

A new teacher to the school, Teacher A had previous experience in teaching middle school. Though she accepted a job at the high school, she missed the team teacher planning that was in the fabric of the middle school schedule. Teacher A viewed working in the project as an opportunity to work toward a common goal with other English teachers. She also came from a school with strong staff development programs and considered continuing professional development for teachers as an opportunity to challenge herself and improve her teaching skills. Her opinion was that without these opportunities to reflect, teachers become stagnant. She was also interested particularly in how to help motivate her freshmen students in reading.

Teacher B was an experienced teacher who had spent eight years teaching at the school. She taught both Spanish and English courses. In the semester that the study was implemented, she taught only Spanish. The researchers had originally assigned her to another group, but she believed in the project so strongly that she wanted to continue with the group. Teacher B was not concerned as much about getting students to read, but she wanted them to more successfully comprehend so that they would have the ability to elaborate when answering questions. Her students were a mixture of juniors and seniors.

Teacher C worked several years at the school and was looking for a way to motivate her freshmen students. She was frustrated by her students' lack of effort and felt their abilities could not be improved with the apathy they possessed. Teacher C engaged her students in group projects as a means of motivating them.

Teacher D was an experienced teacher who had spent eight years teaching at the school. This vibrant, comical woman used humor and enthusiasm to will her students into working hard. Her concern was that her students had tremendous apathy and hoped that the project would help them to attempt their reading assignments. She felt that if the project could help motivate them to pick up their work, she could help them with their reading skills.

Teacher E was a career teacher with 29 years of experience. He taught both English and drama. He wanted his students to gain skills in self-monitoring so that they would be aware of their progress. It was important to him that his students were conscious of their performance in reading and of their comprehension of the content. He was greatly concerned that his students were seniors. The next year they would enter college or the world of work and would need self-awareness and self-monitoring to be successful in the future.

Teacher F taught ninth grade students participating in the AVID (Advancement Via Individual Determination) Program. He was very interested in helping students to monitor their ability to answer challenging questions and to describe what they discovered about themselves as students through the homework log. His concern was that students were lacking skills to monitor their performance and then make choices about changes in strategies.

Teacher G, a 20-year veteran, was concerned that her students did not comprehend the reading assignments. She was enthusiastic that challenging questions would help their reading comprehension. Teacher G also preferred the social components of the plan, where students discussed their findings in small groups and then shared them with the class. She felt this strategy would strengthen students' resolve in meeting their academic goals.

Research Methods

The researchers conducted a case study based on Yin's (1994) model of case study. Data collection included a review of archival records, student and teacher interviews, direct observation, participant-observation, student

homework logs, and teacher instructional information (i.e., higher-order thinking skills questions used in lessons).

Observations
Three classroom observations were made during the nine-week period of each participating class. Anecdotal notes were taken of the class in session. The purpose of the observations was to see how teachers were using the higher-order thinking skills questions designed in half-day professional development sessions and to see if and how they were instituting the agreed upon plan. Observations also served as discussion points between the teachers and researchers.

Anecdotal Notes
Notes were taken during all planning sessions with teachers. Three half-day professional development sessions were held throughout the year as well as bi-weekly meetings until the nine-week implementation of the intervention started. Once the intervention began, teachers met one-on-one with a researcher monthly for the purpose of interviewing, giving feedback, and providing consultation. These notes served to help researchers remember important points in conversation and what objectives were decided upon for meetings.

Interviews
Four to six students from each class were randomly selected for a round of three interviews. Interviews were conducted with teachers and students at the beginning, middle, and end of the project implementation. Students and teachers were interviewed with an open-ended interview sheet. Questions were formed based on the propositions that emerged in the literature and changes in both instruction and learning that occurred in the classroom. Informal interviews were held weekly with teachers to problem solve, identify needs and discuss questioning strategies. Teachers also met informally to discuss the process. Team members conducted focus group interviews with participants to assess the validity of the preliminary report and to add insights and illustrations that might enhance the study.

Data Analysis
Researchers analyzed data in three phases. First, we clustered interview responses by question and identified patterns and variations among responses of teachers and students. We established categories to capture these patterns and variations. For example, in the teacher interview, we asked, "What are the challenges you faced in writing questions for your class?" We then listed all of the responses. Examples are "Trying to get the appropriate level of questioning..." and "I have had no problem writing them, it is just finding the time to sit down and plan...". We then categorized these responses by patterns. The first response was placed in the category of "Finding an Appropriate Student Level" where as the second was placed in a category labeled "Time". We used these categories to code the data, and tallied responses. In the second phase, we examined observations and field notes to identify ways that teachers implemented self-regulation strategies in their classroom. Specifically, we explored ways that they promoted reading comprehension through higher order questions and encouraged student awareness of tasks. Finally, we examined all of the data in reference to our two primary research questions and reported the results accordingly:

1. How did participating teachers promote self-regulation and higher level reasoning?
2. How did students respond to teachers' effort of promoting self-regulation and higher level reasoning?

Results
Teachers' efforts to Promote Self-Regulation
Participants met with a researcher on a weekly basis for a period of three months for informal meetings where their discussions shaped the strategies used. From these formal and informal meetings, the research team and participating teachers designed the practices of the study based on individual teachers' needs. These practices included designing higher-order reasoning questions for assignments and quizzes, an introduction to the use of study logs, and feedback on discussions with students using small group and/or whole class formats.

Teachers worked collaboratively on higher-order thinking questions and personalized them based on students' levels of understanding. They met for half-day inservice service sessions to work on higher-order thinking questions for class. Teachers worked together in teams by class area. For example, Teachers A, E, and G, all of whom taught British literature, worked together to form questions. At first, they worked together on each piece as they were learning how to develop higher-order questions. They also worked on rephrasing the reading questions into quiz questions. Then, as they became more familiar and comfortable with the process, they divided the assignments that they would be covering in the upcoming weeks. Each would work on a separate story and then share the questions. Researchers assisted by being a sounding board for teachers as they grappled with how to infuse higher-order vocabulary into their questions. Researchers also attended classes to observe teachers using the questions with their students.

Teachers used a homework log to assess students' perspective of their ability to complete assignments. Students answered several questions about their assignments such as: date that the assignment was completed, the assignment, the time started, the time spent on the assignment, the study context that included where, with whom, and distractions. Students were also asked to rate their self-efficacy in the assignment. Questions were also asked with answers determined through a Likert scale. These questions included thoughts about the type of thinking students had to do in order to complete the assignment. The design of the homework log was tailored to each teacher's needs. Some teachers wanted students to write out a detailed explanation of their self-efficacy, while others used the Likert scale form. Still others required students to write the letter grade they thought they would receive on the assignment. Another way of tailoring the log was the time in which students filled out the log. Some teachers used it as a daily class starter, while others required students to keep the log in their notebook and complete it as they were doing their work.

The plan that all agreed upon was as follows.

- Teachers handed out permission slips to all students for the one class that teachers selected.
- Students were divided by ability level based on their last End-of-Course English scores. Six students from each class were randomly chosen from those who returned permission slips.
- Teachers initially met weekly to work as a group on writing quiz and homework questions. For the last two months of the study researchers and teachers met informally for consultation and for instructional task clarification.
- Students received higher-order thinking questions (based on the Bloom and Marzano models of thinking) developed earlier by their teachers that were used as guiding questions through independent reading.
- Students completed a homework log after completing their assignments cataloging their successes and struggles.
- Teachers had students meet in small groups or had full class discussions of reading questions.
- Students were given a weekly quiz based on the reading assignments that were developed by the teacher. The quiz was comprised of rewritten guided reading questions.
- Students were asked to estimate how well they thought they had done on their quizzes and then compare their estimate to their actual grades.
- Students recorded their estimated quiz grades versus their actual quiz grades on their homework logs.
- Researchers interviewed the selected students and the teachers.

Teachers' Responses to the Initiative

Six of seven teachers interviewed for the study found writing higher-order thinking skills' questions for reading assignments and quizzes to be initially challenging in that they had been used to preparing questions on the literal level of comprehension. One teacher noted,

> The greatest challenge I faced was maintaining the higher-order thinking skills notion when writing the questions. We've become so accustomed to asking literal questions and emphasizing the meaning of certain vocabulary words. Teachers regress just as well as students. Since students are more successful

> and comfortable with the literal interpretation of readings, teachers have become comfortable in asking literal questions". (Teacher G)

They found that verbal elaboration was needed for students to understand the vocabulary of the questions. "I had to thoroughly discuss the question before students attempted to answer questions independently. Over time, however, the writing of questions became 'simpler'" (Teacher C). Teacher G recognized that a change in students' practice was necessary. She said,

> I had to change their mindset of 'what page is the answer on' to actually searching for the answer themselves. I noticed that they ignore the language and move on to the meat of the questions. They still look in the test for the 'right there' answer."

All of the teachers noticed that students became more comfortable in answering the questions; nonetheless, some students, particularly those in the exceptional children's program, continued to struggle with them.

Teachers' own goals included consistently integrating vocabulary needed for higher-order thinking skills questions as well as introducing students to vocabulary that would be seen on their end-of-course test. Six teachers agreed that most students predicted their scores accurately. For those who predicted their scores lower, they transferred the difficulty of the reading and the quizzes to the test.

The higher-order thinking skills impacted the seven teachers' practice. It helped them change their own routines of questioning for comprehension. They were focusing more, and becoming more aware of students' learning and how students perceived their own skill and motivation to succeed. Teachers believed that the questioning helped students to think about their own responsibility in student learning. One teacher said, "This pointed out that we are creatures of habit and you need to break that habit for students to succeed. If you do things different ways, it helps students to be successful and not give up. This [higher-order questioning] makes me more aware" (Teacher E). Teacher A commented, "It changed my way of planning. It also made me reflect a lot. I thought about my ability to ask questions and it gave me a better understanding of where students were with their higher level thinking." Lastly, another said, "Asking questions ahead of time and rephrasing them in quizzes helps to focus in on what you are interested in them [students] learning" (Teacher F). Though two teachers did not think the questioning strategy impacted their professional development, four noted their growth as teachers and in their beliefs about what students can and can not do. In fact, one teacher was challenged not to "cave in" to her students. She said,

> I must not cave in and believe that they can't do it. For the past three-four years, I chose not to believe that they can't do. My challenge is not to cave into the kids. They realize that they aren't challenging themselves. They are not utilizing all they have to be successful. They have been told too long that they can't do it; therefore they believe it." (Teacher G)

Recognized as important to their development as teachers was the ability to collaboratively plan instruction together as a group. All of the English teachers noted that they had never been given an opportunity to come together as a department for instructional planning purposes. "It's been great. We've never planned together before" (Teacher G). Another replied, "Team planning takes the weight off that I'm not doing anything outside the box. I feel stronger as a unit. I get creative ideas [when planning together]" (Teacher D). Each of them stated that they learned from each other different ways of planning, organizing and presenting instructional content to students.

Two of the seven teachers noted that some students filled out homework logs without prompting. For the other teachers in the study, the logs became a chore at times for both teachers and students; however, the logs did serve to help students self-monitor, assess, and improve their grades. One teacher noted that setting and implementing goals require skills not yet fully developed by some of their students. Nonetheless, four teachers felt that the teaching of self-regulation strategies had a positive effect on their students. Teacher A revealed that

"they [the students] know they have to complete class work and they have to study those questions. They have to ask me a lot more questions before a quiz" (Teacher A). Teacher B discovered that her classroom "feels more like a place of higher learning; students are more enthusiastic. I feel more a part [of the discussion] rather than a leader of the discussion and they [students] are forced to think outside the box."

Student's responses to teachers' effort of promoting self-regulation and higher level reasoning

Note: A total of 42 students participated in the project; however, on the days of the interviews, 32-42 students answered interview questions. (For the first round of interviews, 32 students participated. During the second round of interviews 42 students responded to questions. On the third round, 38 students responded).

Goal Setting

In setting goals for themselves, performance goals, such as getting a good grade and doing well enough to be exempt from the examination were cited most often. "To strive for an A" (Student of Teacher A), "to get an A or a B" (Student of Teacher D), and "to be exempt from the exam and to study vocabulary" (Student of Teacher B) were examples of responses made. However, seven of 42 students wanted more lasting goals. They desired to be exposed to new material that they would not have chosen themselves, pay attention, not get distracted, and become better readers. One student desired to "read books that I probably would never think of reading" (Student of Teacher F). Cited by another student as a goal was "to become a better reader and understand what I read" (Student of Teacher G). Weekly and semester goal setting also included performance and mastery goals. Twenty-eight students acknowledged reaching the goals that they had set for themselves. Thirty students noted that their teachers helped them to set the goals and recognized that their teachers contributed to their learning.

When questioned about personal interest in reading assignments, 12 students found the reading assignments interesting. One mentioned that "I find my reading assignments interesting because I love to read and enjoy participating in our reading assignments because it give[s] me a chance to read new things and experience new things" (Student of Teacher A). Another said, "yes, because I like the way my teacher teaches us how to br[e]ak things down" (Student of Teacher C). Eleven students thought that the readings were somewhat interesting. A student of Teacher E revealed that "whenever we read as a class out loud I think it's interesting, but to me, it's pretty boring when I read individually." Another student said, "some of them are if I like what the story is about and if it is a 'page turner'" (Student of Teacher B). Eight students did not find the readings interesting at all. One student shared that the readings "are boring and you have to stop every few words to look up a word" (Student of Teacher B). Another student admitted that because the readings were somewhat interesting "most times I don't read. I just look at the question and find the answer in the reading" (Student of Teacher D). Dislike of reading, lack of understanding vocabulary, and difficulty in following the story were cited as reasons.

Perceptions of Tasks

Students found quizzes were easy if they studied and could connect the prior assignment questions to the actual quiz. Students also acknowledged that reading, listening to discussions in class, studying, and reviewing notes more would improve their quiz grades. Their responses indicated that they were now more aware of relationships among goals, efforts, and outcomes. One student stated that he would improve his quiz grade in reading if he would "start reading the whole story instead of just answering questions" (Student of Teacher D). Two other students would "study harder and take my time to read the question over if necessary" (Student of Teacher C) and "review homework questions before the quiz" (Student of Teacher B).

Students were asked to describe their reading assignments and how they could improve their written assignments and quiz performance. Of the 32 respondents, seven described reading assignments as "difficult". They made comments like "Our reading assignments are challenging because we are asked questions that require us to understand the deepness of the reading materials. [The] majority of our reading requires us to be able to read in between the lines"(Student of Teacher G). Another student said, "I usually just read during class, because when I go home it [the reading] is difficult for me to understand. So I just wait until I get back to school so the teacher can explain" (Student of Teacher E). For those students who believed their assignments to be

"difficult", teacher assistance in interpreting the reading was required. Fifteen students noted that readings were "somewhat difficult". One student mentioned, "It's not that difficult. It's just sometime[s] hard to understand how to work out problems" (Student of Teacher A). Another said, "I think that they are on the 12th grade level. And they are pretty much easy. Some things I have to ask about but most of the time I make the assignment out" (Student of Teacher A). Other students who believed that their reading assignments were "somewhat difficult" could answer the questions after considerable thought. Seven stated that their reading assignments were "easy". One student believed that the readings "are not difficult. They don't really present a challenge to me. I think that they should be more challenging" (Student of Teacher D).

The wording of the questions was challenging for 11 students, especially when attempting to understand what the questions were asking. However, teacher explanations helped students to understand the questions better. One student said, "the questions are confusing, but when you think about it, it becomes clear" (Student of Teacher A). Another student felt that the questions "make you think more" (Student of Teacher E). A third student admitted, "I just think about the story and [use] a dictionary to help me find the word that I can't understand" (Student of Teacher D). On the other hand, 10 students thought the wording was "understandable." One student said, "They [the readings] are easy because she makes sure she goes over it and explains what it means" (Student of Teacher C). Eleven students noted that the wording of the questions was "somewhat difficult." Some students' comments included items such as "They are easy to understand, but [for] some I may have to ask questions"(Student of Teacher C) and "the wording of the questions are OK but some times they ask for too much elaboration on things unnecessary" (Student of Teacher B).

Strategies Used

When completing reading assignments, 26 students answered most of the questions. While 15 students completed their assignments alone, 16 of them preferred teacher-assisted instruction, small group discussion, or whole class reading and answering questions. Six students stated that they did not complete reading assignments that accompanied the questions. These students tended to complete reading questions in class, after school, or at night as homework. One student did not do assignments at all. The television, radio, talking to friends and family and the telephone were named as distractions to reading and completing assignments.

In preparation for reading, the process students used to answer questions included reviewing the questions first and then reading the story (15) or reading the story first and later looking at the questions (26). One student did not attempt to read or answer questions. Of the 26 who read the story first, some students took notes as they read; others depended on group discussions to help them answer questions. Forty students went back to the text to find the answers. Two of them did not go back to the text in search for answers. While reading, students visualized the text, thought about the events of the story and possible questions the teacher would ask. A few of them daydreamed and thought about other things because they considered the reading boring.

Students used prediction of quiz grades and material on the quizzes as a learning tool. Thirty-eight students reported to have accurately predicted their quizzes and course grades. Only four students responded that they usually predict inaccurately or not at all. Forty of 42 students stated that their predictions provided revelations about their own learning with two students admitting that their predictions told them "nothing" about their learning.

Thirty-three students also recognized that their teachers assisted them with the reading assignments by having the class read aloud, explaining passages, having discussions, offering after school help, and giving students time to work on the assignments in class. They stated that their teachers helped them to identify distractions while reading, encouraged them to practice better time management skills, exposed them to new vocabulary in the reading and in the questions for reading assignments and quizzes, and taught them a different method by which questions can be asked.

Conclusions

This exploratory study investigated students' and teachers' responses to an intervention designed to improve the quality of assignments and enhance student motivation in seven English classes. Participants promoted student self-regulation and higher level reasoning in several ways. Teachers offered challenging questions based on Marzano's Core Dimensions of Thinking Skills (C.R.O.P., 2001). Teachers structured classroom activities to introduce students to the language of self-regulation and to encourage them to monitor the effort they invested in their assignments. They also modeled appropriate ways to thoroughly answer questions and to chart their progress in reading. Teachers reported that students needed a lot of support and modeling at the beginning of the project, which ultimately ameliorated students' frustration about engaging in more challenging tasks.

At the conclusion of the project, teachers reported that the major benefit of this initiative was the opportunity to collaborate more intensively with their colleagues. Teachers stated that participating in this intervention was a positive experience. They particularly liked working together to plan questions for students. They thought that the homework logs helped students to think about their work and the quality of the job they were doing. However, the log required about five minutes of daily class time and teachers needed to monitor students to ensure they were not doing a superficial job. Participants agreed that the higher level questions helped students read more closely. Teachers suggested that one of the major outcomes of this project was that it encouraged them to think more about what they assigned students in class.

Students' responses to these interventions were generally positive. In their task interviews, students described several ways they had improved their reading strategies. Forty of them reported specifically that they looked back to the text to find answers. Thus, they were able to detect that a first reading was not enough to help them glean needed information from the text and they needed to revisit the text to reread. Fifteen respondents discussed using skills such as previewing question and taking notes while reading. Some students also reported visualizing reading. Students also recognized their teachers' efforts to help them define clearer goals for studying. Thirty students noted that teachers were trying to help them set goals. Most of them reported setting performance goals. Their comments indicated that classroom discussion was not enough to help them develop the level of mastery goals that their teachers hoped they would develop.

This study illustrated many of the results of previous investigations. Earlier studies showed that keeping records of their progress helps students to be successful in self-regulation (Zimmerman et. al, 1996; Covington & Beery, 1976; Schunk, 2000). In this study, teachers facilitated record keeping by having students keep logs of their reading. Students commented on their study atmosphere, ability to complete assignments, and how much they actually did through the logs. This intervention helped teachers discover how students responded to their efforts. Hagen and Weinstein (1995) found that offering more challenging tasks assists students in their self-regulation. In this study, teachers hoped that their revised assignments would encourage students to learn the material at a deeper level for the purpose of gaining important concepts, thus promoting a stronger mastery orientation (Schunk, 2000; Zimmerman et. al., 1996). Instead, students continued to articulate performance goals that focused on grades and rewards.

This study also demonstrated the complexity of efforts to improve motivation and enhance higher levels of reasoning. Teachers struggled with offering tasks that were challenging but not overwhelming. Students responded to the fact that their teachers were working to help them be successful in their reading, yet six students skimmed assignments for answers and one refused to complete any assignments or read the material. Teachers were encouraged that the majority of students were reading and emphasized that class discussions were deeper as a consequence. Students also reported that the class discussions about reading helped them to clear misconceptions and understand material.

Implications for Research and Practice

This study suggests a number of implications for research and practice through its limitations. The study did not run the entire semester. Ideally, the self-regulation skills teaching and modeling approach should be woven into the fabric of the entire course. The findings reveal that high school students can learn the language of self-

regulation and can communicate it. However, though students became aware of relationships among goals, efforts, and outcomes, they did not have enough time to internalize them. Therefore, given block scheduling, a study of this kind should be actively conducted with students engaged in the skills of self-regulation for the full semester.

While the teacher participants in this study were experienced, some of them were not initially familiar with the vocabulary of higher-order thinking skills language. This may be particularly true for lateral entry or emergency-licensure persons who frequently are found teaching in high schools today given the national teacher shortage. An assessment of teachers' knowledge of higher-order thinking skills and self-regulation practices should be made and ongoing professional development offered at the beginning of the academic year with the actual study including students commencing during the second half of the year. Teachers would have an opportunity to practice modeling the skills with first semester students as well as second semester students who are participating in the actual study. Specific to this study, future studies should include a goal sheet where students set goals for their learning in addition to a homework log. Such an addition will assist teachers and students in thinking about goals.

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Appendix A Student Interviews

Protocol I

1. How difficult are your reading assignments to complete?
2. Do you find your reading assignments interesting? Why or why not?
3. What do you think about the wording of the questions for your reading assignments?
4. How difficult are your quizzes based on your reading assignments?
5. What would you do to improve your quiz grades in reading?
6. How would you do that?
7. What could the teacher do to help you?
8. How do you think you will do on the next reading quiz?
9. How accurate are your predictions of what you will receive on your quizzes?
10. How do you prepare for your reading quizzes?
11. Did you complete your reading and answer the assigned questions for each assignment?
12. When did you complete your reading assignments for this week in English?
13. Where did you complete your reading assignments?
14. Did you complete assignments with someone else? (If yes, how did that go?)
15. Did you have any distractions while you were reading? (If yes, what were they?)

Protocol II

1. When you have a reading assignment with questions, describe the process you go through to answer the questions?
2. Do you often go back to the text when looking for answers to reading questions. (If yes, what do you look for? If no, what do you do instead)?
3. How do you complete reading assignments for this class (describe the steps you take)?
4. What do you think about when reading for this class?
5. What goals have you set for yourself in this class?
6. Have you set goals in this class for this week? (If yes, please list).
7. Have you set goals for this semester in this class? (If yes, please list).
8. Are you reaching goals that you have set for yourself in this class? (Why or why not - please include the goal in your description).
9. Has your teacher helped you with setting goals for this class? (Explain)
10. Has your teacher helped you with your reading assignments in this class? (Explain)
11. How well have you done in predicting your grades for this class?
12. How has your teacher helped you in making predictions for this class?
13. What do your predictions tell you about your own learning?

Protocol III

1. What has your teacher discussed with you about distractions while reading?
2. What distractions have you identified in your study environment? (Give examples)
3. How have you eliminated distractions? (Give examples)

4. What goals have you reached in this class?
5. How has your teacher helped you to reach your goals?
6. Have you found that your teacher has used more difficult vocabulary in reading questions?
7. How have you found out what these words mean?
8. Has your teacher asked you questions where the answers cannot be easily found in the reading? (Give examples)
9. Has the teacher asked you questions that make you think about how the reading is similar to real life?
10. During the semester has your teacher helped you manage your time?

Appendix B Teacher Interviews

Protocol I

1. *What are the challenges you faced...*
    - In writing questions for your class?
    - In student responses to questions?
    - In goal setting (teacher and student)?
2. How well did the students predict their scores?
3. What did you infer from this information?
4. How do you feel that questioning impacted...
    - your teaching?
    - student learning?
    - your professional development?
5. Did students fill our their logs willingly, or did they need teacher prompting?
6. How did the student logs impact learning?
7. Did you see patterns of student monitoring their own learning? If so, how did you see them emerge?
8. What have you looked for in students' reading to assess patterns?
9. How do you think the study impacted the amount of reading that students completed?
10. How do you think group-work impacted students' learning?
11. How do you think that this project has impacted students' studying?

Protocol II

1. How comfortable are you with:
    - writing questions for your class
    - are students answering questions with greater ease
    - are students benefiting from goal setting (refer to chart)
2. How well did students predict their scores?
    - What did you infer from this information?
3. How do you feel goal setting strategy impacted:
    - your teaching;
    - student learning;
    - professional development?
4. Did students fill out log and goal sheets or did they need prompting?
5. How did goal sheet impact student learning?
6. Did you see patterns of student monitoring of their own learning?
    - If so, how did you see them emerge?
7. How do you think group discussions of goals has impacted student learning?
8. How do you think this project has impacted student learning?

Protocol III

1. How have you incorporated goal setting into your class?
2. What discussions have you had about students reaching goals?
3. How do you determine if students meet their goals?

4. How has consistently asking higher-order questions affected...
    - your class atmosphere;
    - your view of yourself as a teacher;
    - individual student learning?
5. Have you noticed any "aha" moments where higher-order thinking has clicked?
6. How has you development as a teacher been impacted by this project?
7. Has exposure to any of the various topics of this project motivated you to look deeper into any of the subjects (higher-order thinking, goal setting, student self-monitoring)?
8. Have students brought learning conflicts or problems with class work to your attentions?
9. In what way have you mentioned your students' abilities to:
    - set goals;
    - answer higher-order questions;
    - monitor their time?
10. Did you discover any problems they were having, and how did you help them?
11. What portion of this project will you use next year in your teaching?
12. How dedicated were you to this project?
13. How do you think that this project effect school culture, in what ways?

Appendix C Guided Reading Questions for Le Morte D' Arthur Developed Cooperatively by Three Teachers

1. How does the 4th passage on p. 171 present Arthur as a romantic hero?
2. "Welcome, my sister's son, I weened ye had been dead! And now I see thee on live, much am I behoden unto Almighty Jesu." What context clues might you use to figure out the meaning of the word weened?
3. "Never since that time has there been a more doleful battle in any Christian land." How would this be phrased today?
4. On the second column of p. 174, what do the details help you see and hear? (Imagery)
5. How does Arthur, a hero out of the medieval romance, compare and contrast with Beowulf, a hero form a different, and much older society? (Consider each hero's quest, powers, feelings, enemies, and allies.)
6. Many people have hunted for Arthur's tomb. According to this story, what should archeologists look for in their search for Arthur's grave?

Corresponding Quiz

1. Apply the mysterious circumstances surrounding Arthur's death to an important person death in our society.
2. How is Arthur portrayed as a romantic hero in the legendary story?
3. "Welcome, my sister's son, I weened ye had been dead!" Explain what word we might use in our own "slang" today to replace the word "weened".
4. Compare and contrast the Arthur and Beowulf using three examples.
5. Create a sentence that is an example of imagery.