

## The Strategy Project: Promoting Self-Regulated Learning through an Authentic Assignment

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Success in college requires the development of self-regulated learning strategies that move beyond high school skills. First-year students of all ability levels benefit when given instruction in how to use these strategies in an authentic context. This paper presents an instructional method that requires deliberate practice of self-regulated learning strategies including active reading, management of study time and achievement goals, proactive interaction with faculty, and metacognitive reflection within the context of a student-selected course. Four instructors implemented the assignment in their first-year seminar courses, and student reflection papers were analyzed for emerging themes. These themes suggest the positive impact of applying pedagogy that requires intentional within-course application of self-regulated learning strategies, suggesting the strategy project may be a viable way to teach and encourage college-level strategic behavior.

Beginning college students often enter their first semester underprepared for the personal responsibility of managing their own learning (Weinstein, Acee, & Jung, 2011). To be successful in the academic challenges they will face, college students must go beyond surface-level learning, taking ownership of learning by choosing and using the best resources and strategies for the task, as well as reflecting upon and monitoring their progress toward learning goals (Kitsantas, 2002). These skills, which are often grouped under the umbrella term “self-regulated learning” (e.g., Zimmerman, 2008), are not explicitly taught in most high school curricula, yet they are integral for academic success as well as adjustment to college (Park, Edmonson, & Lee, 2012).

Students come to college expecting that more will be required from them (Schilling & Schilling, 2005), but yet the high-school mindset persists (Erickson & Strommer, 2005). Lacking the skills to deeply and critically process information, manage their time and study habits and reflect on these strategies, many first-year college students experience failure during the first semester. Self-regulated learning programs have been successful in helping students develop these key skills in the first year (e.g., Rosário, et al., 2010; Tuckman & Kennedy, 2011), and some content-area instructors are able to weave instruction in self-regulated learning into the curriculum (see Weinstein, Tomberlin, Julie, & Kim, 2004, for examples). However, most often the pressure to cover content prevents the inclusion of self-regulation strategies in the type of courses most often taken by first-year students. Furthermore, unless students are directed to practice self-regulated learning strategies in an authentic context, any message given to them about their efficacy may be lost (Sternberg & Martin, 1988).

This paper presents an assignment that encourages students to acquire and practice the self-regulated learning strategies that are associated with success in

college. The assignment is grounded in the literature on self-regulation strategies and college success, and it was designed to encourage the development of self-regulation mastery through deliberate practice of these strategies in an authentic context. It addresses the problem of implementation and authenticity by using the context of a course in which the student is currently enrolled. In the Strategy Project assignment, students learn time management, communication, and study strategies in the process of preparing for an actual test, then demonstrate that learning by submitting their test preparation activities as part of a graded project. By encouraging and providing feedback on reflective thinking and goal-directed interaction with faculty and peers—strategies that contribute to success in college— instructors can model the process of self-regulation. The next section presents a review of this literature as it relates to college success.

### Self-Regulated Learning Strategies

Ambrose, Bridges, DiPietro, Lovett, and Norman (2010) suggest that “to become self-directed learners, students must learn to assess the demands of the task, evaluate their own knowledge and skills, plan their approach, monitor their progress, and adjust their strategies as needed” (p. 191). In other words, to become a self-regulated learner, students must first acquire the strategies that lead to success, then implement and reflect upon the results. Self-regulating behaviors are proven predictors of academic success (e.g., Pintrich & DeGroot, 1990). In college, learning strategies that go beyond memorization and passive knowledge acquisition are essential, as students who use higher-level metacognitive strategies are more successful in their courses (Kitsantas, 2002). For example, students who are taught to monitor their comprehension and evaluate their learning as they read show deeper processing of the material and better

retention than students who passively read the text (Nash-Ditzel, 2010). In addition, first-year students who successfully manage their time and seek out existing resources show greater achievement in the first year (Tuckman, 2003).

Research on self-regulated learning has a long history in the educational psychology literature, originating from work by Zimmerman, Schunk, Pressley, and others on goal setting, motivation, and strategy use (Zimmerman, 2008). As Zimmerman (2008) notes, a self-regulated learner is one who is motivated, reflective, and proactive in his use of learning strategies. For college students, self-regulation involves taking the initiative to learn and implement appropriate strategies for the task, set goals for learning, and reflect on one's approach, modifying it for the next task if necessary. Although it is often described in conjunction with academic strategies, it can be extended to proactive social behaviors, such as seeking help from the instructor (Zimmerman, 2008). A self-regulated college student knows a variety of strategies, understands when to use them, and is mindful of his progress toward short- and long-term goals.

Many students enter college believing that they are prepared for this challenge due to their success in high school (Balduf, 2009). However, because learning tasks at the college level require different skills and greater personal responsibility for managing those skills, many high school students begin to show deficits in these abilities once they reach the college level (Cohen, 2012; Levine & Cureton, 1998). This is not limited to poor performing students. While bright students may have better self-regulation strategies than their peers in middle and high school (e.g., Zimmerman & Martinez-Pons, 1990), those same students may reach the ceiling of their strategic ability in college where more active learning strategies are required (Balduf, 2009). This suggests the teaching of self-regulated learning strategies is important for college students of all achievement levels.

Ample evidence shows that self-regulated learning strategies, as primary contributors to academic success (Pintrich & DeGroot, 1990), *can* and *should* be taught (Cohen, 2012; Paris & Paris, 2001; Tuckman, 2003; Weinstein, et al., 2004), yet faculty attempting to teach them may face challenges. For example, despite negative feedback and poor grades in their initial semesters of college, many students are reluctant to change the learning strategies with which they were successful in high school (Dembo & Seli, 2004). Furthermore, many students are unable to appropriately judge whether or not they are actually learning—a key aspect of self-regulated learning—which can lead to overconfidence (Koriat & Bjork, 2005). The assignment presented in this paper encourages students

to practice confronting their ineffective strategies and reflecting on outcomes of learning.

Models of expertise (e.g., Ericsson, 1996) have suggested that deliberate practice provides the best route to becoming an expert in a task. In order for a person to achieve at mastery levels, practice of the skill in an authentic context is necessary. While the amount of time a student studies is important, it is only predictive of grades when the time is spent in useful, deliberate practice of learning skills (Plant, Ericsson, Hill, & Asberg, 2005). When study time is carefully planned, focused, and appropriate for the task at hand, mastery of learning strategies is optimized. Students who commit to practicing good learning strategies, therefore, have a better chance at becoming self-regulated expert learners.

The type of deliberate, domain-specific practice that builds self-regulation can be achieved through the use of an authentic assignment such as the one presented in this paper. Authentic assignments are carefully designed by the instructor to mirror the types of tasks students will encounter in a real setting (Wiggins & McTighe, 2005). They require problem-solving, creativity, and application, and similar to real-world tasks, are complex and somewhat unstructured. Authentic assignments help students practice the learned strategies in the same way they will use the strategies in the future and promote the kind of metacognitive reflection that builds self-regulation.

This is most successful when contextualized in a setting that is meaningful and valuable to the student (Simpson, Hynd, Nist, & Burrell, 1997; Sternberg & Martin, 1988). When strategies are embedded in or taught alongside a content area, students are better able to transfer the strategies to future tasks and reflect on the outcome of that transfer (Steiner, Dean, Foote, & Goldfine, in press; Tuckman, 2003). In sum, the self-regulated learning strategies important for success in college are built through deliberate practice within an authentic context that has value for the student. The next section of this paper presents in detail an assignment which meets these goals.

### The Strategy Project Assignment

In order to become successful college students, first-year students must be able to use deep processing strategies to retain what they learn and time management strategies to maximize efficiency. They also must be able to reflect continually on their progress with these strategies, seeking help when necessary. It is with these learning objectives in mind that the Strategy Project Assignment was developed. The Strategy Project (see Appendix) is a multistep project requiring students to plan, monitor, and evaluate their newly learned strategies as they prepare for a test in a course

in which they are currently enrolled. In this assignment, students are directed to complete the following activities related to an exam they have chosen for the project. Students must:

- create a plan for their study time;
- interact one-on-one with the instructor of their chosen course;
- use active reading strategies as they review exam material;
- use active note-taking strategies in class;
- implement additional active learning strategies that are appropriate for the content area, such as self-quizzing or concept mapping; and finally,
- reflect on their exam performance in a final paper.

The Strategy Project was designed for implementation in the first-year or learning-to-learn seminar, but can be adapted for a variety of courses and is especially appropriate in a learning community setting where a first-year seminar is linked to a content-area course (see Steiner et al., in press). Content-area instructors also can adapt this project for use in their own classes by assigning the project prior to a test in their own course.

First, students receive instruction on the use of self-regulated learning strategies as well as research-based evidence on why the strategies work. For example, the instructor may model the process of active reading by thinking aloud, writing annotations in the margin, and self-quizzing as she moves through a text. This lesson can be extended to a discussion on metacognition and the benefits of deep cognitive processing. After instruction in the various strategies, students are directed to identify a test in a course for which they have ample time to prepare and reflect. Typically, this is the second or third test in a semester-long course. When given the option to choose their own test, choices can vary widely, from Psychology to Math to Chemistry and others; however, most students choose a course in which they feel less confident and prepared. Students meet briefly with the strategy project instructor to review the requirements and determine if any substitutions should be made. For example, if a student chooses a course in which a textbook or other readings are not used, an alternate strategy that will replace the active reading strategy may be proposed by the student and approved by the instructor.

Next, the student makes an appointment with the instructor of the course they have chosen for the project (again, when the strategy project is assigned as part of a content-area course, this section may be modified). This is a significant piece of the strategy project, as it allows students not only to gain knowledge about how to succeed in the

course, but to build a relationship with a professor who cares about the student's success and is invested in the student's growth as a self-regulated learner. Goodman, Baxter Magolda, Seifert, and King (2011) suggest that interacting with faculty members outside the classroom plays an important role in the transition to college. Requiring this interaction as part of the strategy project may help ease the initial discomfort that many new college students feel in speaking with their professors.

Students then plan their approach to the strategy project by mapping out a time- and task-specific "plan of study." As an essential component of self-regulation for college students (Kitsantas, Winsler, & Huie, 2008; Tuckman, 2003), time management is another important piece of the strategy project. With increased task demands and more responsibility for allocating their time, college students must be taught strategies for managing their study time. Students who use good time management strategies tend to achieve higher grades. Kitsantas and colleagues (2008), for example, found that good time management strategies during the first and second years of college was a better predictor of academic success than prior ability measures like high school GPA and SAT scores.

Specific learning strategies are the next components of the strategy project. The active reading portion allows for practice of textbook annotation, an active strategy that promotes deep processing and engagement with the material (Simpson & Nist, 1990). In the note taking portion, students are instructed to take notes for the duration of the exam-preparation time using the Cornell method of note-taking (Pauk, 1962)—a system of note-taking which encourages organization, self-quizzing, and paraphrasing—or a similar active note-taking method. Finally, students are directed to choose two additional strategies from among those discussed (for example, concept mapping, creating flashcards, self-quizzing, etc.) that are appropriate for test preparation in their course. Evidence of good quality textbook annotations, class notes, and study strategies are presented as a portion of the final strategy project.

Finally, students reflect on the results of their strategy project through a written assignment and oral presentation. Both of these final products are crucial to the success of the strategy project. Written reflections are often used in the first-year seminar to promote critical thinking and metacognition (see, for example, Everett, 2013). By encouraging students to critically analyze the efficacy of each portion of the project, the instructor-suggested prompts mirror the type of metacognitive evaluation that good self-regulators conduct naturally. By sharing these reflections with classmates, students expose each other to peer-driven models of self-regulation, and

they share discipline-specific strategies that may help their fellow students succeed in other courses.

In sum, the strategy project encourages the deliberate practice of self-regulation strategies embedded in the authentic context of a student's current class. The following section describes an analysis of student responses to the written reflection portion of the project. To best understand the impact the Strategy Project had on first-year students, analysis was restricted to the project's reflection papers. However, reference to the project continued to emerge in end-of-semester course evaluations and online ratings of instructors. Clearly, it was a project that made an impression on students during a time of transition. Emerging themes from these student reflections will be discussed in light of the literature examined in the previous section.

### Emerging Themes

The Strategy Project was assigned in five sections of a first-year seminar course taught by four different instructors. The first-year seminar includes learning outcomes related to time management and study skills, and approximately four class sessions (six hours) are spent on instruction in this area. Strategy Project reflection papers and grade improvement scales ( $N=79$ ; see Appendix) were collected at the close of the semester from first-year seminar students who signed consent forms agreeing to participate. Student names were dissociated from the papers, which were kept confidential.

Reflection papers were analyzed for recurring themes using open coding methods, which are rooted in the "grounded theory" qualitative approach (Strauss & Corbin, 1990). This method of content analysis is recommended for use in educational settings, as it allows themes to emerge naturally from their context (Mann, 1993). Formal content analysis of the reflection papers was conducted solely by the author; however, two of the instructors who provided reflection papers participated in a more informal review of the data and emerging themes, which closely matched the author's more formal analysis. This section presents a preliminary discussion of these themes (see Table 1 for a summary), including students' thoughts on the strategy project's role in the college transition; self-reported changes in strategy use, achievement, and self-efficacy; and projected long-term changes in self-regulatory behaviors. These themes will be illustrated with selected quotes from student reflection papers.

### Task Value

Student motivation for a task is dependent in large part on the personal value of the task in question (Wigfield & Eccles, 2000). In order for students to commit to strategy change, they must find personal

benefit in doing so. Therefore, perhaps the most important theme to emerge from the student reflections is the value the students saw in completing the strategy project assignment. Students felt this project was extremely helpful and worth their time, which is important given the demands that all college students face. "I am so gracious that I was assigned this project. I learned so much about myself and gained an enormous amount of self-confidence by committing myself to this assignment," said one student. "This project has to be the most eye opening project of my entire semester," said another. "It has efficiently changed my study habits and strategies throughout my college career. For that, I am extremely grateful that you chose this project to help us adapt to college." Even after the conclusion of the semester many students continued to mention this project as being the most transformative experience of their first-year seminar. This was especially significant because of the transformation in learning strategies the college transition requires.

### The High School to College Transition

Students reported entering college with expectations of a higher work load and greater personal responsibility than they had in high school, which is similar to what many other first-year students expect (see Schilling & Schilling, 2005). However, some students seemed to be overconfident about their first college exams, while others were paralyzed with fear. One student admitted, "I was confident to the point of becoming overly ambitious and cocky when I went to bed the night before [my first] test." Another more fearful student said, "I feared this class in the beginning of the semester so much that I thought for sure I was going to fail." Optimistically, many of these students saw the strategy project as a way to dispel that fear and tackle the new demands of a college curriculum: "I figured this project was a chance for me to relieve some of that stress and learn ways to make me feel more prepared for my next test."

As in Balduf's (2009) study, the students reported doing very little studying in high school. Many said they had never read a textbook until faced with the strategy project requirement: "Coming to college has definitely been a wake-up call... In high school, I was a 4.0 student. If you went to class and paid attention, you could easily make an A. That is not the case in college." Students' lack of time management skills was also a prominent theme, reflecting a struggle common among first-year students (Pryor et al., 2012). One student described her struggles with managing classes, a part-time job, and new relationships: "A person can set time aside to do projects, but that doesn't mean it will get

Table 1  
*Summary of Emerging Themes in Strategy Project Reflection Papers.*

Topic	Emerging theme
Task value	Students viewed this assignment as helpful. Students viewed this assignment as worth the time commitment.
High-school to college transition	Students expected a higher work load upon entering college. Students were overconfident in their strategies based on high school successes. Despite overconfidence, many students were fearful about their first college exams, not knowing what to expect. Students reported little studying and time management activities in high school. Students recognized after the first exam that new strategies would be necessary. Students were not willing to attempt this change in strategies on their own.
Changes in strategy use	Students were initially disinterested in the strategy project assignment. Students, especially those who reported enjoying some of the more difficult strategies, displayed emerging metacognition and an understanding of why some strategies worked while others did not. Students had mixed responses to most of the individual strategies, but the plan of study and professor interaction were universally well-liked.
Changes in achievement and self-efficacy	Students reported increased test grades in their chosen courses. Students reported increased confidence in their test-taking abilities.
Long-term benefits	Students reported permanent changes in their study and time-management strategies. Students reported a recognition of the value of effort in preparing for exams.

done; a lot of things come up and plans change, and it is sometimes hard to change with it.” Many described themselves as procrastinators, like these students:

- “I waited until three days before to try to cram weeks’ worth of information”
- “I used to wait till the day before to start my work and then turn it [in] half done.”

Many of them recognized that although they were excited and confident about their college classes, new strategies were necessary: “Coming into this semester I thought that with sheer motivation and class attendance I could get through all of my classes, because I had plenty of it. As the year progressed, however, I recognized that that would not be enough.” This “wake-up call” especially made an impact as students received feedback on their first and second tests in their courses: “Honestly, I hardly studied for the first exam because I had made an A in the same class in high school. That was a naïve mistake. Receiving the first exam grade was a rude awakening to college and proved that my study skills are lacking.”

Interestingly, even though students knew they needed to change, they weren’t always willing to attempt this change on their own. One student explained, “How I studied and prepared in high school worked for me then, and I honestly believed that it would also work in college. While I did realize that was not the case quite early on, I still was too stubborn to completely change how I went about completing my work for classes. Cramming at the last second and skimming over reading has always gotten me through classes and I wanted it to work in college as well. This project however, forced me to totally throw all of the things that I have done out the window and go about tackling this exam in a different manner.” Thus the strategy project was the impetus for a change that may not have happened otherwise.

### Changes in Strategy Use

Perhaps because of these prior habits, many students balked at the suggestion of such a comprehensive project that would lead to strategic change. The initial reaction to the strategy project was not all favorable: “When I originally heard about what all was required for the Strategy Project, I

immediately became uncomfortable,” said one student. “I knew that every one of the things I was required to do for it was going to force me to step out of my comfort zone and traditional study habits that I have held all the way through school.” Students reported feeling “overwhelmed” at first, seeing the project “as a burden. Just one more thing I had to do.” Then, when the project was underway, their feelings seemed to change: “[The Strategy Project] took some time getting used to, and in all honesty I was thinking of not actually participating. Then again, a light bulb came on, and I realized that maybe doing the strategy project would not be such a bad idea.”

After completing the strategy project, students reported many changes that indicated a better understanding of why some strategies work when others do not. One student described this understanding in detail:

I placed a lot of my emphasis on the notecards throughout my [previous] study period, and that’s why I believe I didn’t get an A. Not saying the notecards weren’t useful, there [were] just questions on the test that required you to apply the vocabulary definitions... In my Cornell Notes I was able to find more examples and teacher comments, leading to a better full understanding of the given terms. Knowing the definition can only take you so far, you have to be able to apply the terms to certain scenarios asked in exam questions.

Many students wrote about similar metacognitive experiences that led them to thinking about studying in a new way.

Student opinion on some of the individual strategies was mixed, perhaps reflecting the uniqueness of each student’s testing situation. For example, about half the students found textbook annotations and Cornell note taking methods useful for their test preparation, and half did not. Many of them said they found those methods tedious and unnecessary initially, yet they changed their minds when their test scores increased as a result. Students who reported enjoying textbook annotations and Cornell note taking had reflection papers that included more references to metacognition, which may indicate that they truly understand the purpose of those strategies. There was overwhelming support for the plan of study and professor interaction portions of the project, as well as for the strategies of concept mapping and self-quizzing. The vast majority of students said that they would continue to create a study plan for future tests that included plenty of time for metacognitive strategies, and they would take the initiative to

speak with each of their professors at the start of every semester.

### Changes in Achievement and Self-Efficacy

Among the students who reported their test grades before and after the strategy project, approximately 45% reported increases of a letter grade or greater and an additional 26% reported smaller grade increases. Three students made perfect scores on their tests after completing the strategy project. One described his success in a notoriously difficult course:

Finally the moment arrived, exam time. I cleared my mind before the exam was distributed, I reminded myself that I had done a great job sticking to my strategy project, I reminded myself that I was going to impress [the professor] by doing really well on her legendary exams, I could do this, I knew I could. I took my exam with surprising ease and confidence... Then, later that evening, when I checked my grades, I saw it; I had made a perfect score, a one hundred percent on one of [the professor’s] exams. I couldn’t believe it, at first I thought there had been some mistake, but upon reflecting on all that I had done to prepare for that exam, I knew that this was the grade I deserved.

Students also reported changes in self-efficacy as a result of practicing self-regulated learning, mirroring many of the findings from studies discussed above (e.g., Zimmerman & Martinez-Pons, 1990). After practicing self-regulated learning for the strategy project, students felt more confident in their test-taking abilities. In fact, this increased confidence was one of the strategy project benefits most often mentioned by the students. One student remarked:

Whenever a test or quiz is mentioned, anxiety will almost always be present. Before the exam, I had some anxiety, but I just reminded myself that I studied using my strategies, I was prepared, and I knew I could do it. During the test I felt confident and happy that I understood the information, [and] lastly I thought to myself, ‘I will do well!’

Another commented, “Now I feel confident doing math again.”

Not all students saw an increase in their test grades as a result of the strategy project. Nine percent of the students reported a small decrease in their test grades after the strategy project, and 13% reported a decrease of a letter grade or more. When these students’ reflection papers were analyzed separately from the larger group, some surprising themes emerged. Perhaps

the most surprising was the honesty with which students confronted their failure. The vast majority of this group voluntarily admitted that they did not put forth the necessary effort on the project, taking personal responsibility with comments like, "I have no one to blame but myself." They had challenging personal circumstances:

The past few months things in my life have been a ping-pong ball and that is stressful. Not only do I have to worry about grades but I have to worry about what I am going to do next year and even next semester.

They also made mistakes in test preparation: "Taking notes on the wrong part of a chapter in Economics can do much more harm than one might expect. I attribute some of the loss of maximum points on the test to this unfortunate mistake." Some failed to follow their plan of study:

It was definitely in my intentions, but I would get too tired some nights, or just get back in my room too late and not feel like studying... I feel as though if I had stuck to my study plan exactly, I would have done better on my test.

Only two students out of 79 felt as if they had put in quality time to a project that did not benefit them in the end. These students, according to their reflections, had trouble understanding and applying the learned strategies and therefore felt frustrated with the project in general.

### **Long-Term Benefits of the Project**

Many students indicated that they will make permanent changes in their self-regulated learning strategies as a result of this project. Even students who were not successful in raising their test grades reported that they will continue to use these strategies in the future. A student who did not improve her grade initially said, "The best thing about this whole project for me is the lasting effects... I used these methods again because I thought that maybe I just needed to adjust to them. Making myself take the time to do these things has helped so much. I know [my test score] isn't a great one. However, compared to the other two [previous] scores, that is a GREAT score and I am proud of it." Students seemed to recognize the value of effort in achievement, which is critical to viewing success as an attainable goal (Dweck, 1986). And as projected, these students saw the strategy project as the beginning step in the process of becoming self-regulated. One student said, "I will try to keep

constantly adjusting my study habits throughout my college career, and I hope the Strategy Project lays the ground work for just that." They felt they had a fresh outlook on college and were prepared to tackle future classes: "I am excited to start next semester because I know I will do a lot better."

### **Concluding Thoughts**

The assignment described in this paper was developed to aid students in building better self-regulated learning strategies in an authentic context. Student responses indicated that the project did raise awareness of, and encourage the use of, these beneficial strategies, and for most students, also increased their test scores. Research using this assignment may help clarify the effect of self-regulated learning strategies on student metacognition and achievement. However, some limitations of the assignment itself must be acknowledged. Because authentic assignments are representative of real-world problems (in this case, studying for actual college exams), they are somewhat more subjective than other assignments. The strategy project is flexible enough to be used with many different courses, and it may be modified by students when necessary. This occasionally caused discomfort for instructors (and students) who preferred more controlled, proscribed, objective assessments of learning. Detailed grading rubrics for each part of the project are currently in development; these may help clarify expectations for students and instructors. The strategy project also relies on self-reports from students and, therefore, must make the assumption that students are being truthful about the strategies they used and the grades they received. Finally, like most assignments, the strategy project will be successful only with student buy-in. Unmotivated students who fail to complete the requirements will not reap the project's benefits.

In order for first-year students to develop habits for success, they must learn and commit to practice good metacognitive skills for studying, time management, and self-reflection. The strategy project is an emerging, effective pedagogical aid to encourage these good self-regulation skills. It allows for deliberate practice of the newly learned strategies in the authentic context of a course in which the student is currently enrolled, thereby increasing its personal value for students. Although many students entered college with deficient learning strategies, they indicated that they would not have taken the initiative to change their strategies on their own. This project provides the momentum to overcome the academic inertia that plagues many first-year students. Although this is a multi-part assignment that takes considerable commitment from students, students are motivated to

complete it because of the immediate feedback they receive and often are pleased with the resulting good grades. This positive feedback may encourage them to make permanent changes in their self-regulation strategies for future courses. In sum, the strategy project is a flexible assignment that may be useful in a variety of courses to help students build the self-regulated learning strategies that will enable their success in higher education. Future research on this assignment can shed more light on the lasting effects this project has on student achievement.

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## Appendix

**Strategy Project<sup>1</sup>**

This is one of the most important assignments for the course, as it is where you will put the information you learn in this course into action. You will choose one test in another course that you're currently taking and apply the strategies and hints that we've learned in this course to preparing for your test. This assignment will require you to submit all your test preparation and other strategies along with a written reflection about your experience by the last day of class. As part of your grade, you will also present your strategy project to the class.

**Specific Strategy Project Components:**

1. **Contract (5 points).** Choose a test in another course that is not the first test given in that course, but has sufficient time for reflection after the test is returned. The strategy project will work best if you choose a high-stakes test that you anticipate will be challenging. Complete the "Strategy Project Contract" with your instructor.
2. **Professor Interaction (20 points).** Make an appointment to meet with the professor of the course well before your chosen test for an interview and help session. Feel free to explain that you're there as part of a strategy project in another course. Please write a brief (1-2 page) description of what went on during your professor interaction. A list of suggested questions is below, but please also add your own:
  - What is the format of the upcoming test?
  - What do you think are the best ways to study for this test?
  - What do you think differentiates the most successful students in your class from the least successful students?
  - What do you like most about being in academics?
  - Do you conduct research? If so, what is it about?
3. **Plan of Study (20 points).** Using the suggestions from your professor as well as what you've learned in our class, please outline your plan of study for this test. You should create a detailed study schedule that describes what you will do and when you will do it.
4. **Active Reading (10 points).** Preview and annotate all textbook chapters associated with this test. You will present your annotations to your instructor when you turn in your final project.
5. **Active Notetaking (10 points).** Use the Cornell method to take notes during the entire pre-test period, making sure to set aside the left margin for self-quizzing. You will present your notes to your instructor when you turn in your final project.
6. **Test Preparation Strategies (20 points).** Select at least two additional test preparation strategies (e.g., flashcards, concept maps, question generation, self-quizzing, etc.) that are appropriate for your course. You will present your completed test preparation strategies to your instructor when you turn in your final project.
7. **Written Reflection (40 points).** After you take your test but before you receive it back, please estimate the grade you think you received. When you receive your graded test, please write a reflection paper 3-5 pages in length about your experiences with the strategy project. In particular, please reflect on which elements of the project you think helped and which did not. Please also reflect on the grade you received, and whether it

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<sup>1</sup> The research study described in this manuscript used a pilot version of the strategy project assignment, which is provided here. For an updated version of the assignment, please contact the author at [hsteiner@kennesaw.edu](mailto:hsteiner@kennesaw.edu).

matched what you thought you'd receive. Please also attach your completed Grade Improvement Scale (found below). Submit your reflection paper and scale as part of your final project.

8. **Class Presentation (25 points).** Please plan to share your Strategy Project with fellow students in an informal presentation of about 10 minutes in length. You may use the doc cam to show elements of your project. In particular, your fellow students would like to know: What is your course like? Was the professor receptive to your questions? What elements of the Strategy Project worked in your course?

To summarize:

- Your contract that describes the test you will use for your project is due on [date].
- Complete the active reading, active notetaking, professor interaction, plan of study, and test preparation strategies **before** your chosen test. After you have taken the test, but before you receive it back, estimate the grade you think you received.
- After you receive your test back, complete the written reflection and grade improvement scale, and prepare for your presentation. Make an appointment with your instructor to present your active reading, active notetaking, and test preparation strategies, and submit your professor interaction, plan of study, and written reflection/grade improvement scale to the dropbox.

### Strategy Project Contract

Name \_\_\_\_\_

Course you will use for this project \_\_\_\_\_

Date of Test \_\_\_\_\_

No modifications for the Strategy Project will be necessary for my test.

\_\_\_\_\_  
Student Signature

OR:

I will need to modify the following Strategy Project requirements:

I propose the following strategies to take the place of the above:

\_\_\_\_\_  
Student Signature

Approved \_\_\_\_\_

**Grade Improvement Scale**

Name of course used for strategy project:

My grade on the first test in that course was \_\_\_\_\_.

My grade on the second test (for which I used the strategy project) was \_\_\_\_\_.

From the first test to the second test, my grade:

1	2	3	4	5
Decreased significantly (10% or more)	Decreased slightly (less than 10%)	Stayed the same	Increased slightly (less than 10%)	Increased significantly (10% or more)