

SELF-MONITORING TO ENHANCE STUDENT ENGAGEMENT

As teachers, we have all had students whom we would regard as *self-regulated learners*. These students demonstrate intrinsic interest in the course material, arrive at class eager to ask questions and offer insights, are comfortable admitting gaps in their knowledge and are motivated to remediate these issues. Moreover, when they are not successful in learning or demonstrating their knowledge, they often change some aspect(s) of their learning strategy.¹ Since a large percentage of the students we teach would not be characterized as self-regulated learners, however, how can we help to foster self-regulated learning strategies in these students?

One critical and necessary component of self-regulated learning is *self-monitoring*, which is the “deliberate attention to some aspect of one’s behavior”.² In the context of academic work, self-monitoring often takes the form of methodical observations or judgments whereby students assess the effectiveness of their learning strategies by comparing their investment of time and effort with their performance on an assessment(s).^{1,3} This information can then be used to recognize causal links between their behavior and desired/undesired outcomes, to implement changes or modifications to their strategies, and/or to establish more realistic future goals.¹

INTEGRATING SELF-MONITORING INTO GENERAL PSYCHOLOGY (PSYC 101)

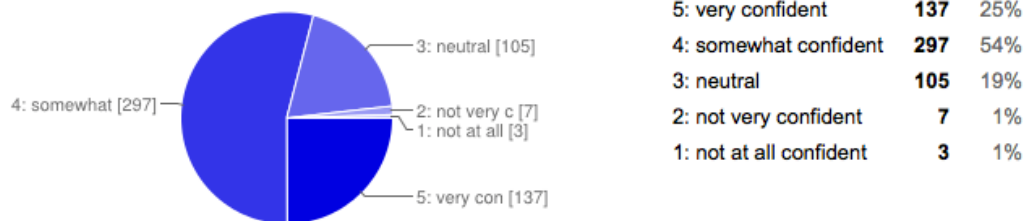
Numerous students have told me that the study questions and online quizzes I provide in General Psychology are very helpful in allowing them to focus their reading and check their understanding; however, despite providing these and other tools I felt there was a disconnect between these tools and students’ awareness of how their behavior was linked to their course performance. Enter self-monitoring. While monitoring cannot force students to study or attend class, it may have a positive effect on student engagement by causing *reactivity*, which is the idea that simply recording a behavior calls attention to that behavior and may make a response more likely. In addition, self-monitoring can help students focus their attention on a few circumscribed behaviors (especially if they find the course material daunting), lead to improvements in their time management and organizational skills, and ultimately may encourage more reflective thinking, thereby increasing their chances for success.⁴

To incorporate self-monitoring into my course, I designed a Google Form (<http://tinyurl.com/psyc101-tracking>) that students used on a weekly basis to enter information about their engagement in the course for that week. Specifically, students logged information such as:

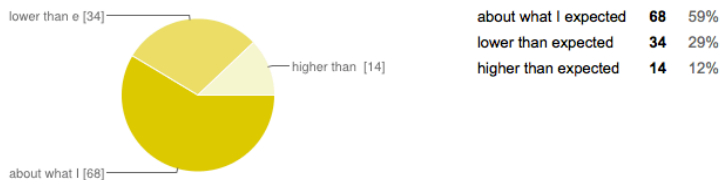
- (a) amount of time they spent reading the textbook and other assigned readings
- (b) amount of time they spent completing the study questions
- (c) level of confidence in understanding the course material
- (d) whether they met with a Teaching Assistant or the Instructor, and
- (e) how they planned to change their approach to the course in the coming week.

Students' participation in this activity constituted 5% of their overall course grade. I made it clear that students' course grades would *not* be affected by how much time they reported preparing for the course. Students' entries could be summarized by Google, which gave me a snapshot of student engagement, confidence, and their plans for approaching the course differently. Below is a sampling of some of the summary charts produced by Google Forms:

How confident are you feeling about your understanding of the course material today or this week?



To what extent was your Exam #3 score consistent with your expectations?



If your Exam #3 score was lower than what you expected, what are 1-2 things you might do to change your approach to preparing for the final exam?

I am not sure, I think I have to see what questions I got wrong. I left the exam thinking I wasn't sure about 2 of the multiple answer questions, but was surprised to get 6 wrong Do the learning goals Study Earlier ask clarifying questions on the test study more frequently Continue attending class & reading the book Meet with Professor Holt. Start studying further in advance studying with other classmates, really going through the reading and making note cards and discussing every concept I don't fully understand send professor holt my learning goals study even the stuff we mentioned briefly go to class Read more Read the text more than once I want to do more of the online quizzes No Study the night before aswell studying much longer study longer, get more sleep starting to study earlier and completing the learning goals Make sure I can apply the terms to situations rather than just memorizing a definition. go over key terms Make sure I know details and not just the general information about a topic Prepare earlier so I do not have to cram studying. I would read the text more than once Study Longer ask questions during the exam Go to the review session and not miss the exam and take the make-up slow down, but still don't over think it I did not work with others as much as I did for the last exam and I think it would have helped for me to do so.

WHAT WORKED WELL?

Students provided feedback about the self-monitoring exercise twice during the semester. At the mid-point of the semester, students reported that they liked the fact that self-monitoring gave them specific ideas about what they could be doing to improve and that it also created more accountability with respect to their course engagement week-to-week. The feedback at the end of the course was similar. Students noted, "it reminded me what I could do better," "it encouraged me to read more," and "I was more organized and planned work better." Personally, I found it helpful to see how much time students were spending preparing for the course outside the classroom, how their level of confidence in grasping the material varied from week-to-week, and the specific tasks they believed would be most helpful in enhancing their subsequent learning.

CHALLENGES & RECOMMENDATIONS

Despite the fact that some students found the self-monitoring to be useful, numerous students reported that they didn't believe it affected their engagement in the course. At the end of the course, I asked students to rate the helpfulness of the self-monitoring on a scale of 1 (not at all helpful) to 5 (very helpful). The mean was a 2.32 (standard deviation = 0.99), suggesting that, on average, students only found the activity to be marginally helpful. Some of the specific challenges students cited included the fact that they had difficulty remembering to enter their data and they couldn't remember how much time they had spent engaging in a specific course activity. I provided weekly reminders in class and, on some weeks, over e-mail. Also, I encouraged students to set up a recurring reminder on their phone. Halfway through the semester I reconfigured the online tracking sheet so that students could enter their data on a daily basis (or right after they completed work for the course) to reduce the likelihood that students would forget how much time they spent on a course-related activity. However, remembering to enter their data remained a barrier throughout the remainder of the semester.

After reflecting on the implementation of this activity and reviewing students' suggestions, I would offer several recommendations on how the self-monitoring might be modified to be more effective. First, it might be helpful to randomly remind students to monitor throughout the week, or for them to receive an automated reminder if they do not enter data at the end of the week. Second, it would be ideal for students to enter their data in an "app" that provides summary information to them about their engagement over time. Although using a Google Form allowed me to view a summary of all students' responses, it did not allow students to reflect on their individual data. To my knowledge, there aren't any apps with this type of functionality that work across multiple platforms (e.g., iOS, Android, etc.), but perhaps this type of tool could be developed. Finally, I believe it could be helpful to connect the monitoring exercise with a specific course assignment that explores more of the psychological principles underlying self-monitoring and encourages periodic reflection. In summary, I believe the self-monitoring tool holds promise in enhancing student engagement, but several modifications need to be considered in order to increase student buy-in and their perceived effectiveness of the exercise.

¹ Zimmerman, B.J., & Paulsen, A.S. (1995). Self-monitoring during collegiate studying: An invaluable tool for academic self-regulation. *New Directions for Teaching and Learning*, 63, 13-27.

² Schunk, D.H. (1983). Progress self-monitoring: Effects on children's self-efficacy and achievement. *Journal of Experimental Education*, 51, 89-93.

³ Lan, W.Y., Bradley, L., & Parr, G. (1994). The effects of a self-monitoring process on college students' learning in an introductory statistics course. *Journal of Experimental Education*, 62, 26-40.

⁴ Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.