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Metacognitive Reflection Assignments in Introductory Psychology

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MOTIVATION AND CONTEXT FOR THE ACTIVITY

These assignments focus on study strategies, goal setting, and reflection on the effectiveness of study strategies and the extent to which goals have been achieved. These assignments are used in Introductory Psychology courses at UW Richland, one of fourteen UW Colleges open-enrollment freshmen-sophomore liberal arts campuses throughout Wisconsin. These classes typically enroll 15-35 students in each of two sections per semester. A diverse range of students take these classes from varying ethnic/racial/language backgrounds and levels of academic preparation. Many students struggle with basic academic and study skills. Such skills have been emphasized in these courses over the 16 years I have taught in the UW Colleges and the present metacognitive reflection assignments represent an evolution of this work.

NUTS AND BOLTS OF THE ACTIVITY

The materials included represent the three assignments used in the Spring 2017 semester. These assignments vary across semesters based on the students, information I encounter in my reading, and my own reflection on their impact in previous semesters. This series of assignments is introduced at the beginning of the semester. For new students, this occurs within the context of discussing ways that college might be different from high school in demands and strategies required for success. For continuing students, this occurs within a discussion about student perceptions of what is required for success in college based on their own experiences. The course textbook includes personal application sections (Improving Academic Performance and Improving Everyday Memory) that are assigned as part of the first week's readings (Weiten, 2017, pp. 23-25, 252-255). Sternberg (2016) provides an excellent overview of evidence-based effective study strategies and tips for success. This was used for the first time in the Spring 2017 semester as a supplement to Weiten (2017).

In the first assignment, students are encouraged to write about study strategies they intend to use in the course as well as goals for the first unit of the course concluding with the first of four exams. The first assignment is graded very quickly with feedback given to students within a week of submission. In-class feedback typically includes a focus on writing goals in more clear and specific ways so they are attainable. Online worksheets are readily available for helping students write SMART goals and can be helpful at any stage in this sequence of assignments. The second assignment is due a week after the first exam. At that time, students reflect on their exam performance and the effectiveness of their study strategies as well as the extent to which they met their goals. Students are encouraged to refine their strategies and goals for the second unit based on the outcome of the first exam,

having a better idea of what is required in the course, and greater insight into their own learning processes. The third assignment is due a week after the second exam. Again, students are asked to reflect on their exam performance, the effectiveness of their study strategies, and the extent to which they met their goals. Students are also encouraged to narrow their focus for this assignment and discuss two main strategies or goals they intend to focus on for the rest of the semester. Over the years, students have appeared to increasingly struggle with focused study given the multitasking demands of their electronic devices. For this reason, the third and final assignment also includes a reading about unplugging from devices and regaining control of one's life (Weir, 2017), and questions about student experiences related to points made in this article.

ACTIVITY OUTCOMES

I have witnessed students making significant changes in their approach to academic work with improvements in course performance over the semester. Unfortunately, many students have not seemed to benefit from such intervention, at least during the semester taking this course or in ways visible to me. Goal setting and evaluation routinely emerge as significant challenges for students. Distributed practice, self-testing, and minimizing distractions represent some of the more common strategies students report being successfully used. Improved management of electronic devices while studying has been one of the most significant outcomes for students revealed in these assignments.

LESSONS LEARNED AND FUTURE DIRECTIONS

I intentionally front-load these assignments to have maximum benefit. Students have perceived such assignments to be redundant when done after every exam in the past. In the future, I plan to re-introduce an end-of-the-semester reflection to better gauge the impact of these assignments. The student writing in these assignments provides a basis for one-on-one conversations with students about improving academic performance during office meetings. The positive impact of these assignments could be enhanced by structuring ways to have more follow-up conversations with students about their preferred study strategies and learning goals. I highly encourage integration of strategies for improving relationships with devices in any material on study strategies and metacognition. I welcome your feedback about how I might improve these attempts to improve student metacognition and look forward to learning more about your attempts to do so.

READINGS PROVIDED TO STUDENTS

- Sternberg, R. J. (2016). Introduction to optimizing learning in college: Tips from cognitive psychology. *Perspectives on Psychological Science*, 11(5), 642-660.
- Weir, K. (2017, March). (Dis)connected. *Monitor on Psychology*, 48, 42-48.
- Weiten, W. (2017). *Psychology themes and variations* (10th ed). Boston, MA: Cengage.
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APPENDIX A**Metacognitive Reflection Assignment Series**

Dennis D. Carpenter, Ph.D.

Metacognitive Reflection Assignment 1

You are required to do three things in this first assignment.

1. Describe what you perceive to be three requirements for success in college and evaluate the extent to which you are meeting these challenges. Or, if applicable to you, describe three ways that the requirements for success in college seem to be different than in high school. Then evaluate how you are doing in making any changes needed to meet these requirements.
2. Write about at least two strategies that you are working on this semester in this class. Use the list of topics below from your assigned reading to pick strategies to write about. You can also choose from topics that are described in the handout provided in class entitled, “Optimizing Learning in College: Tips from Cognitive Psychology” (Sternberg, 2016)

“Improving Academic Performance” and “Improving Everyday Memory
(Weiten, 2017, pp. 23-25, 252-255).

Set up schedule/write it down
Place to study and concentrate
Reward studying
Active reading
Note-taking in class
Adequate rehearsal/testing effect
Deep processing/organization
Distributed practice
Minimize interference

3. Identify 3 goals describing the strategies you plan to work on to prepare for exams in this class. You can use any of the goals you wrote about on the first day of class and develop them further here. As you formulate your goals, think specifically about how you approach each component of the course including: reading of text, preparation for reading checks, preparation for online quizzes, completion of chapter assignments, notetaking in class, review of class notes and further reading, study approaches used as exam approaches, and others. Also, think about the various strategies for studying and learning that we have talked about in this class or that are contained in the readings.

Due: At the end of week 2 of the semester. 850 word minimum, 1050 word maximum.

Metacognitive Reflection Assignment 2

Please address the following in your paper.

1. Review the study strategies and goals that you outlined in your first paper.
Evaluate how effective your work was in preparing for Exam 1.
 - a. Describe the extent to which you met each of the three goals outlined in your first paper.
 - b. Describe the extent to which you used the two study strategies outlined in your first paper.
 - c. Describe the extent to which your performance on the first exam met your expectations? Why or why not?
2. You now have a better idea of what is required in this course as well as how your approaches to studying are working.
 - a. What worked well for you so far in the course that you will try to continue?
 - b. What hasn't worked for you so well and how do you plan to change that?
 - c. Update your three goals that will guide your actions as you work through Unit 2 of this course and prepare for exam 2.

Due: One week after Exam 1. 750 word minimum, 950 word maximum.

Metacognitive Reflection Assignment 3

Part A

1. Briefly describe the extent to which your performance on Exam 2 met your expectations. Explain why or why not.
2. Describe one of the goals or strategies you planned for this unit and exam that you believe you accomplished or used successfully.
3. Describe one of the goals or strategies you planned for this unit and exam that you believe you did not accomplish or use as well as you could.
4. As you think about the rest of the semester in this class, what two strategies or goals will you make sure to keep using or working on to ensure success in this class?

Part B

5. Reflect on the material in the article handed out in class, *(Dis)connected* (Weir, 2017), the material covered in Chapter 7 of Weiten (2017) on divided attention and multitasking, and lecture material on multitasking and studying. Respond to three of the four following prompts.
 - a. Describe what, if any, impacts your use of electronic devices has upon your sleep. Make connections to main points made in the article in your answer.
 - b. Describe the extent to which you believe you control your checking of your devices and the possible impacts this may have on your anxiety and behavior. Make connections to main points made in the article in your answer.
 - c. Describe the extent to which your use of devices may impact your social relationships. Make connections to main points made in the article in your answer.
 - d. Describe the extent to which you use your devices while you are studying and the possible impact this may be having on your learning and memory. Make connections to main points made in class in your answer.
6. Based on the material you summarized for the previous question, summarize what is working well for you regarding your relationship with your devices and/or describe what you plan to work on to improve your relationship with your devices.

Due: One week after Exam 2. 950 word minimum, 1150 word maximum.

APPENDIX B
Metacognitive Reflection Assignment 1 Grading Rubric

A. Description of 3 requirements for success in college or description of how college different than high school.

- 3 Provides clear description of 3 topics with some degree of specificity.
 2 Provides description of less than 3 topics and/or more vague and general topics.
 1 Provides limited description of topics.
 0 Not done

B. Description of at least 2 strategies used to study and learn.

- 3 Clearly describes in some detail at least two study strategies from the list provided or the article.
 2 Provides description of less than 2 strategies and/or 2 in more vague and general ways.
 1 Study strategies described in limited or incomplete ways.
 0 Not done

C. Description of 3 goals related to learning strategies to optimize performance.

- 3 Provides clear description of 3 goals with some degree of specificity.
 2 Provides description of ___ less than 3 goals and/or ___ 3 in more vague and general ways.
 1 Provides limited description in general and/or for less than 3 goals.
 0 Not done

D. Inclusion of specific course components or learning strategies when describing goals.

- 3 Clearly includes in some detail course components or learning strategies.
 2 Includes course components or learning strategies in more vague and general ways.
 1 Very limited inclusion of course components or learning strategies.
 0 Not done

E. Writing Mechanics

- 3 Paper is generally free of grammar and punctuation errors. Paper is well-organized with an appropriate paragraph structure. Word count accomplishes requirements of assignment, 850-1050.
 2 Some grammar and punctuation errors noted and/or issues with paragraph organization, and/or word count at or somewhat below minimum of 850.
 1 Many grammar and punctuation errors, and/or difficulties with paragraph organization, and/or word count substantially below minimum of 850.
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APPENDIX C
Metacognitive Reflection Assignment 2 Grading Rubric

A. Evaluation of how well you believe you met the three goals set for this unit.

- 3 Clearly describes extent to which 3 goals were met.
 2 Vaguely or less completely describes the extent to which 3 or _____ less goals were met.
 1 Limited or incomplete description of the extent to which 3 or _____ less goals were met.

B. Evaluation of how well you believe your study strategies worked in preparing for Exam 1.

- 3 Clearly describes whether expectations met and role of two study strategies in this.
 2 Vaguely or less completely describes whether expectations met and role of two study strategies.
 1 Limited or incomplete description of expectations and role of study strategies.

C. Description of extent to which exam performance matched expectations.

- 3 Clearly describes expectations and whether met or not.
 2 Less clearly describes expectations and whether met or not.
 1 Very briefly describes expectations and whether met or not.

D. Description of what worked well and what didn't work well.

- 3 Clearly describes.
 2 Less clearly describes.
 1 Minimally describes.

E. Update/affirmation of 3 goals related to learning strategies to maintain or improve performance.

- 3 Provides clear description of 3 goals with some degree of specificity, showing work for one goal inspired by the SMART Goal Worksheet.
 2 Provides description of _____ less than 3 goals and/or _____ 3 in more vague and general ways.
 1 Provides limited description in general and/or for less than 3 goals.

F. Writing Mechanics

- 3 Paper is generally free of grammar and punctuation errors. Paper is well-organized with an appropriate paragraph structure. **Word count (750-950)** accomplishes requirements of assignment.
 2 Some grammar and punctuation errors noted and/or issues with paragraph organization, and/or word count at or somewhat below minimum.
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- 1 Many grammar and punctuation errors, and/or difficulties with paragraph organization, and/or word count substantially below minimum requirement of assignment.

 Rubric Total

 Grade

Comments:

APPENDIX D**Metacognitive Reflection Assignment 3 Grading Rubric****Part A****1. Description of extent to which exam 2 performance matched expectations.**

- 3 Clearly describes expectations and whether met or not.
 2 Less clearly describes expectations and whether met or not.
 1 Very briefly describes expectations and whether met or not.

2. Description of how well you believe you met one of the goals or strategies set for this unit.

- 3 Clearly describes extent to which a goal or strategy was met.
 2 Vaguely or less completely describes the extent to which a goal or strategy was met.
 1 Limited or incomplete description of the extent to which a goal or strategy was met.

3. Description of one of the goals or strategies that you did not accomplish as well as expected.

- 3 Clearly describes extent to which a goal or strategy was not met.
 2 Vaguely or less completely describes the extent to which a goal or strategy was not met.
 1 Limited or incomplete description of the extent to which a goal or strategy was not met.

4. Description of two strategies or goals you will keep using or working on throughout the semester.

- 3 Clearly describes two strategies or goals.
 2 Vaguely or less completely describes two strategies or goals.
 1 Limited or incomplete description of two strategies or goals.

Part B**Three out of four required for 5a-5d.****5a. Description of impact of use of electronic devices on your sleep.**

- 3 Clearly describes impact making connections to main points in article or text.
 2 Less clearly describes or less clear connection to main points in article or text.
 1 Minimally describes and/or does not make connections to main points in article or text.

5b. Description of ability to control device use and impact on anxiety and behavior.

- 3 Clearly describes making connections to main points in article or text.
 2 Less clearly describes or less clear connection to main points in article or text.
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1 Minimally describes and/or does not make connections to main points in article or text.

5c. Description of extent to which use of devices may impact social relationships.

3 Clearly describes making connections to main points in article.

2 Less clearly describes or less clear connection to main points in article.

1 Minimally describes and/or does not make connections to main points in article.

5d. Description of device use while studying and possible impact on learning and memory

3 Clearly describes making connections to main points in article or in class.

2 Less clearly describes or less clear connection to main points in article or in class.

1 Minimally describes and/or does not make connections to main points in article or in class.

6. Summary of what working well with device use and what you plan to work on to improve device use.

3 Clearly describes what is working well and what will be improved.

2 Less clearly describes what is working well and what will be improved.

1 Minimally describes or does not address both what is working well and what will be improved.

7. Writing Mechanics

3 Paper is generally free of grammar and punctuation errors. Paper is well-organized with an appropriate paragraph structure. **Word count (950-1150)** accomplishes requirements of assignment.

2 Some grammar and punctuation errors noted and/or issues with paragraph organization, and/or word count at or somewhat below minimum.

1 Many grammar and punctuation errors, and/or difficulties with paragraph organization, and/or word count substantially below minimum requirement of assignment.

Rubric Total

Grade

Comments:
