Self-regulated Learning vs Evidence-based Study Strategies – A Pilot Study

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Introduction

There is a growing concern about students entering college only to drop out or change majors after a semester or more of study. There are multiple reasons for this including personal reasons that may have nothing to do with academics, of course, but sometimes students switch to different majors because they feel that their original choice is too difficult after not doing well in the required introductory courses. Training in self-regulated learning (SRL) strategies may enable students to gain the skills necessary (e.g., making goals, planning, organization) to succeed in gateway courses that have a minimum grade requirement. These behaviors allow students to be active contributors to their learning, and to have control over achieving their goals. SRL also requires that a learner have some kind of control over how they learn, what kinds of methods to use, or even their environment, otherwise, the student may still learn, but the outcomes are determined by external factors. Self-regulation skills can be taught and utilized in different contexts. Once a learner develops the skills of SRL they can choose to put them to use in those contexts.

References:

1. Hulleman, C. S., Godes, O., Hendricks, B. L., & Harackiewicz, J. M. (2010). Enhancing interest and performance with a utility value treatment. *Journal of Educational Psychology, 102*(4), 880–895. https://doi.org/10.1037/a0019506
2. Hulleman, C. S., & Harackiewicz, J. M. (2009). Promoting interest and performance in high school science classes. *Science, 326*(5958), 1410–1412. https://doi.org/10.1126/science.1177067
3. Pintrich, P. R., & de Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology, 82*(1), 33-40. doi: 10.1037/0022-0663.82.1.33
4. Pintrich, P. R., Smith, D.A.F., Garcia, T., & McKeachie, W.J. (1993) Reliability and predictive validity of the motivated strategies for learning questionnaire (MSLQ). *Educational and Psychological Measurement, 53*, p. 801-814.
5. Perez, T., Cromley, J. G., & Kaplan, A. (2014). The role of identity development, values, and costs in college STEM retention. *Journal of Educational Psychology, 106*(1), 315.
6. Seymour, E., Hewitt, N. (1997). *Talking about leaving.* Boulder, CO: Westview Press.

Method

Participants:

- 18 female and 20 male undergraduate students
- Over age 18
- Online English composition course

Procedure:

- Students in two sections of an online English composition course were randomly assigned to receive training in either self-regulated learning (SRL) strategies or other evidence-based study strategies and expected to complete a related assignment for each of three strategies presented. Following completion of the third assignment, students were asked to complete a survey regarding the usefulness, effectiveness and effort of the strategies they used
- Students participation with materials were assigned as homework, for homework points.
- Intervention materials were kept on a separate Blackboard Organization site.
- Survey participation was optional
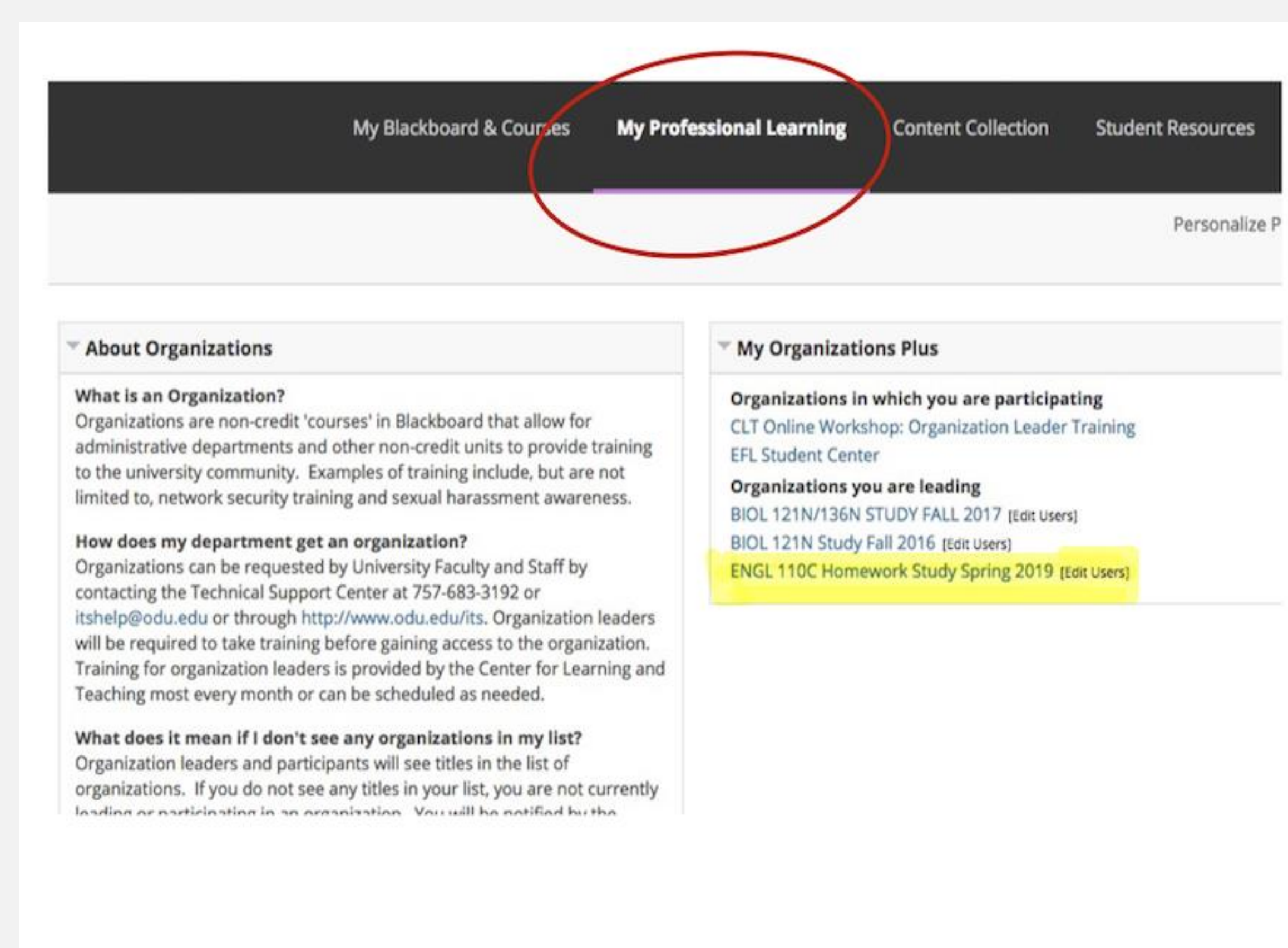
Intervention:

3 assignments – Study Strategies

- Spaced repetition (video plus PDF – Upload an example of your proposed study method for the next week)
- Concept mapping (video plus PDF – Upload an example of a concept map you made from your most recent module)
- Outlining (video plus PDF – Upload an example of an outline for your next module)

3 assignments – Metacognitive Strategies (SRL)

- Smart goal planning: (video plus PDF and weekly action plan template: Upload a plan for studying next week)
- Self-evaluation: (video plus PDF – Upload Self-evaluation/reflection of previous essay assignments)
- Metacognitive Strategies: (video and PDF – Answer questions about how well you think you will do on the final project, according to the rubric)

Research Questions:

1. Do students rate the utility-value of SRL strategies higher than Study strategies?
2. Do students rate the effectiveness of SRL strategies higher than Study Strategies?
3. Do students rate the effort-cost of SRL strategies lower than Study strategies?

Survey Questionnaire

Effort Cost (rated from 1=Strongly disagree, 2=Somewhat disagree, 3 Disagree, 4=Neither agree nor disagree, 5=Somewhat agree, 6=Agree, 7=Strongly agree)

- When I think about the work needed to use the strategies learned in this study, I do not think it will be worth it in the end.
- I'm not sure I've got the energy use the strategies learned in this study.
- For me, using the strategies learned in this study is not worth the effort.
- The strategies learned in this study require more effort than I am willing to put into them.

Utility Value (rated from 1=Not useful at all, 2=Somewhat useful, 3= to 7=Very useful)

- How useful are these strategies for what you want to do after you graduate?
- How useful are these strategies for your daily life outside school?
- How useful will these strategies be for future college courses?

Effectiveness and future use (rated from 1=Strongly disagree, 2=Somewhat disagree, 3 Disagree, 4=Neither agree nor disagree, 5=Somewhat agree, 6=Agree, 7=Strongly agree)

- These strategies will be important when I get a job or go to graduate school.
- These strategies will be useful for me later in life.
- Concepts in these strategies are useful because they will help me in the future.
- The strategies that I learned in this study were effective.