ONLINE LEARNING: SUPPORTING STUDENT METACOGNITION AND SELF-REGULATION

Managing cognitive load involves an interaction of teaching and learning practices; students can learn to effectively manage their cognitive load, but this does not come naturally to most learners (Sweller et al., 2019, p. 284). Online learning requires strong self-regulation and metacognitive skills. These include thinking about learning, planning one's own learning process, monitoring the effectiveness of learning efforts, and judging the level of learning achieved (McGuire, 2015, p. 17). What can support student development of these key skills in an online environment?

Provide clear objectives

Provide clear learning objectives for each week or course module. Ask students to write learning goals at the start of the week. At the end of the week, ask students to summarize how they met their learning goals this week (Hint: this does not need to be a graded assignment, but can be part of course participation. Collecting this information can provide a lot of insight on strengths and weaknesses in student learning).

Explain required time on task

Clearly explain expected weekly time on task. How much time should students expect to devote to reading and/or course videos? How much time should be spent participating in online discussions? Students often underestimate the time required in an online course.
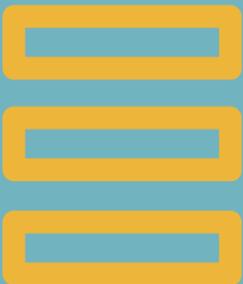
Communicate about course structure

Communicate clearly about the course structure early and often. Explain to students what they will be doing, and how these tasks help them achieve the learning objectives (Fiock, 2020).

Give examples of active, on-task learning

Provide specific instructions of what active and "on task" learning might look like for the learning activities you design. For example, specify that you want students to take notes in a traditional or mind-map format while watching a video or completing a reading. Ask students to perform self-explanation after a learning activity (ie. explain the concept as you would teach it to someone else (Sweller et al., 2019, p. 278).

Provide prompt feedback

Provide prompt feedback (Fiock, 2020), and explain clearly how you would encourage students to use the feedback to support their ongoing learning. Ask students to identify 2-3 things they learned from their feedback that they will use on their next assignment.

Tips for Presenting Assignments Online

Work with a teaching partner to ensure that your instructions are clear to a novice learner. In an online course, you won't receive verbal or non-verbal cues that students do not fully understand the task. Ask a colleague outside of your discipline (e.g. a learning strategist) to provide feedback on the clarity of your assignment instructions and rubrics.

References
Fiock, H. S. (2020). Designing a community of inquiry in online courses. International Review of Research in Open and Distance Learning, 21(1). http://www.irrodl.org/index.php/irrodl/article/view/3985/5270
McGuire, S. Y., & McGuire, S. (2015). Teach students how to learn: Strategies you can incorporate into any course to improve student metacognition, study skills, and motivation (First edition). Stylus Publishing, LLC.
Sweller, J., van Merriënboer, J. J. G., & Paas, F. (2019). Cognitive architecture and instructional design: 20 years later. Educational Psychology Review, 31(2), 261–292. https://doi.org/10.1007/s10648-019-09465-5