Supporting Students' Self-Regulated and Self-Directed Learning in the Remote Environment

The goal of this document is to describe self-regulated learning, discuss why self-regulated learning is beneficial yet more challenging in remote learning environments, and outline strategies that instructors can implement to support student self-regulation and, in turn, their learning in remote courses.

What is Self-Regulated Learning?

A self-regulated learner actively and strategically uses metacognitive, motivational, and behavioral processes to achieve specific learning and performance goals (Zimmerman, 2008, 2011).

- **Metacognitive processes:** thinking about, monitoring, and evaluating the effectiveness of one's learning strategies, self-evaluating progress and outcomes, adjusting strategies when needed
- **Motivational processes:** goal setting, initiating and sustaining goal-directed learning activities
- **Behavioural processes:** seeking help from instructor or peers, making a schedule to manage time, modifying one's environment to avoid distractions, keeping a study log, regulating the amount of effort expended on various learning tasks

Self-regulated learning is related to increased academic performance among university students in both traditional (Nota, Soresi, & Zimmerman, 2004) and online courses (Broadbent & Poon, 2015).

Self-Regulated Learning in Remote Environments

In the transition to remote learning, students are learning how to learn again. Self-regulation strategies are of greater importance in online and remote learning environments due to their more autonomous nature (Dabbagh & Kitsantas, 2004), but students may be unfamiliar with the self-regulation strategies required to be successful in this environment (Azevedo & Hadwin, 2005). The self-regulation strategies they used in face-to-face courses may not be as effective in the remote environment. Students may also experience barriers to their self-regulated learning in remote courses, including (see Kohan et al., 2017):

- being overwhelmed with more content and information in the LMS environment (e.g., videos, readings, links to external resources)
- experiencing a heavier workload due to more lower-stakes assignments
- experiencing more mind wandering and distraction due to learning on their devices and at home
- less clarity regarding expectations for assignments and confusion about the weighting of assessments (some students will exert the same effort on a 2% quiz as a 15% assignment because the online environment may make these assessments seem equally important)
- fewer informal and formal opportunities for interaction and support from instructors and peers
- ambiguity and change in the roles of instructors and students, including expectations for communication, guidance, presence, and independent learning

Students' self-regulation strategies are not likely to improve from increased exposure to or experience with online courses (Barnard-Brak, Paton, & Lan, 2010). If we want students to meet our learning outcomes and succeed in our courses, research suggests that instructors should consider implementing strategies to support students' self-regulated learning (Azevedo & Hadwin, 2005; Barnard-Brak et al., 2010; Dabbagh & Kitsantas, 2004; Ferla et al., 2010; Wandler & Imbriale, 2017; Zheng, 2016).

Strategies to Support Students' Self-Regulated Learning

The following course design and instructional strategies can support students' learning and their skills as self-regulated learners in remote courses:

Strategy	Implementation Strategies and Examples
Provide resources around self-regulated learning	- Share UofG resources: [Library resources and workshops for students] and [resources for remote learning during COVID-19], OpenEd's [Tips for Success] - Share and model strategies that worked for you when learning this content (e.g., note taking strategies, study strategies, time management techniques) - Ask learners to assess their self-regulation skills (e.g., using the [Metacognitive Awareness Inventory] or the [Self-Regulated Online Learning Questionnaire]) - Share resources on learning and metacognition, such as these [videos on How to Study] and this Learning Scientists post on [How to Improve your Metacognition]
Have a well-defined course organization and navigation	- Help students prioritize information available on your course site by clearly identifying what is required and what is optional (videos, readings, links) - Use timed or [conditional release] of content in CourseLink to avoid overwhelming students with content - Provide a consistent and predictable course structure and routine (see the **Planning the Structure of your Remote Course guide** on our [CRDI website]), especially if you have many smaller, low-stakes activities (discussion posts, reflections, quizzes)
Prompt students to manage their time and effort	- Provide weekly checklists or announcements with readings, tasks, office hours, synchronous activities, asynchronous activities, assignments, and deadlines - Provide estimates of how long activities will take to complete and remind students of their weighting to help students allocate their time and effort - Encourage learners to make a study/learning plan (examples [here] and [here]) to help with organization and time management, including setting their own goals - Encourage learners to minimize distractions by blocking [distracting websites]
Prompt students to monitor and reflect on their learning	- Provide short-term goals to help students monitor their learning ("By the end of this week, you should be able to answer these questions, define these concepts, etc.") - Have students reflect on the effectiveness of their learning/studying strategies, their performance, and how to adjust their strategies in the future (e.g., using [exam wrappers], [assignment wrappers]) - Provide constructive feedback that prompts reflective and actionable revision - Ask students to self-evaluate their work using the grading rubric/checklist before submitting assignments - Seek [feedback from students] about how the course is going, how much time they are spending on content and assessments, and how they are helping and hindering their own learning
Scaffold assessments and clarify expectations	- Provide clear, easy-to-find instructions for assignments (see the Assessment Outline in the **Adapting your Assessments guide** on our [CRDI website]) - Break down assignments into smaller parts to help students' time management - Provide clear grading criteria - Provide samples/models of desired performance
Encourage help seeking	- Hold virtual office hours, check-in meetings with student groups - Reach out to students who have been quiet or have not submitted assessments - Foster peer assistance through opportunities for students to connect synchronously (e.g., breakout rooms, permanent groups) and asynchronously (e.g., students share what self-regulation strategies are working for them in a discussion forum or poll)

For more strategies, see:
- [Teaching Metacognitive Skills](#), University of Waterloo Centre for Teaching Excellence
- [Metacognition](#), Vanderbilt University Center for Teaching
- [Tips for Fostering Students' Self-Regulated Learning in Asynchronous Online Learning Environments](#), Rachel Ebner (2020), Faculty Focus
- [Promoting College Student Self-Regulation in Online Learning Environments](#), Wandler & Imbriale (2017), Online Learning Journal
- [Promoting Student Metacognition](#), Tanner (2017), CBE-Life Sciences Education

References

Azevedo, R., & Hadwin, A. F. (2005). Scaffolding self-regulated learning and metacognition– Implications for the design of computer-based scaffolds. *Instructional Science*, *33,* 367–379.

Barnard-Brak, L., Paton, V. O., & Lan, W. Y. (2010). Self-regulation across time of first-generation online learners. *Research in Learning Technology, 18*(1), 61-70.

Broadbent, J., & Poon, W. L. (2015). Self-regulated learning strategies & academic achievement in online higher education learning environments: A systematic review. *The Internet and Higher Education*, 27, 1–13.

Dabbagh, N., & Kitsantas, A. (2004). Supporting self-regulation in student-centered web-based learning environments. *International Journal on E-Learning, 3*, 40—47.

Ferla, J., Valcke, M., & Schuyten, G. (2010). Judgments of self-perceived academic competence and their differential impact on students' achievement motivation, learning approach, and academic performance. *European Journal of Psychology of Education, 25,* 519-536.

Kohan, N., Arabshahi, K. A., Mojtahedzadeh, R., Abbaszadeh, A., Rakhshani, T., & Emami, A. (2017). Self-directed learning barriers in a virtual environment: A qualitative study. *Journal of Advances in Medical Education and Professionalism, 5,* 116-123.

Nota, L., Soresi, S., & Zimmerman, B. J. (2004). Self-regulation and academic achievement and resilience: A longitudinal study. *International Journal of Educational Research, 41*, 198-215.

Wandler, J., & Imbriale, W. J. (2017). Promoting college student self-regulation in online learning environments. *Online Learning Journal,* https://olj.onlinelearningconsortium.org/index.php/olj/article/view/881

Zheng, L. (2016). The effectiveness of self-regulated learning scaffolds on academic performance in computer-based learning environments: A meta-analysis. *Asia Pacific Education Review*, *17*, 187–202.

Zimmerman, B.J. (2008). Investigating self-regulation and motivation: historical background, methodological developments, and future prospects. *American Educational Research Journal, 45,* 166–183.

Zimmerman, B. J. (2011). Motivational sources and outcomes of self-regulated learning performance. In B. J. Zimmerman & D. H. Schunk (Eds.), *Handbook of self-regulation of learning and performance (pp. 49-64).* New York, NY: Routledge.

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