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Overcoming overwhelm: using learning theory to improve support of students in crisis

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Keywords

Learning, learning theory, cognitive load, student support

Abstract

As OHSU works to diversify its pool of admitted students in alignment with the 30-30-30 plan, we can expect that we will be seeing an increasing number of students with complex academic and personal needs. However, educators and student service professionals can at times be dismayed to find that students who are in the most need assistance are too overwhelmed to effectively take in information or to make the changes necessary to improve their learning outcomes. Though there are many factors that contribute to student overwhelm, we know that students in distress struggle to take in new information (Naismith et al., 2019).

We cannot as an institution claim to be creating a more diverse environment if we do not center student needs and experiences when we are designing our course content and student outreach. In this presentation, we will discuss how cognitivist learning theory can inform our coaching and teaching practice to ensure that all learners are able to more fully understand course content and access academic interventions and resources. Cognitive Load Theory postulates that information must be processed through working memory before moving into long term memory where knowledge is stored (Sweller et al., 2019). Working memory allows us to keep information in mind briefly while we work with it. However, working memory is extremely limited in capacity and easily overloaded, thereby acting as a bottleneck for new learning (Young et al., 2014). This is significant for professionals working with students in a teaching or support capacity because they may inadvertently be contributing to students' cognitive overload. Furthermore, emotional distress can negatively impact working memory. (Naismith et al., 2019). Consequently, some of our most vulnerable students may come to us already at or nearing cognitive overload. Students experiencing cognitive overload can appear to have information "paralysis" where they are no longer "able to process and then act on what is heard." (Schimming, 2022).

Research shows that the use of cognitive load-informed strategies can effectively facilitate deep learning of concepts and improved learning outcomes (Issa et al., 2011). Therefore, we can look to this cognitivist framework to support student learning at OHSU. Indeed, Cognitive Load Theory is receiving increasing recognition in medical education as a highly relevant and useful theoretical framework (Young et al., 2014). In this interactive workshop, we will discuss cognitive load-informed methods such as using images, metaphors, pretraining, worked examples, signaling, and segmenting to enhance student learning. Participants will also have an opportunity to personalize these strategies for their own practice. The workshop's structure will reflect and center the student's experience by addressing three barriers that students commonly report struggling with: engagement, focus, and application

By the end of this session, participants will be able to:

Learning Objectives

- Define cognitive fatigue
- Describe how cognitive load impacts learning
- Identify at least 1 strategy to promote engagement
- Identify at least 1 strategy to increase focus
- Identify at least 1 strategy to enhance application ability

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