USING TESTS AS A LEARNING TOOL: ONLINE IMPLEMENTATION OF A MASTERY MODEL OF PRACTICE TESTING

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Abstract: Research from the field of cognitive psychology has established practice testing as one of the most effective ways to enhance learning and retention, having been identified in a recent literature review as one of two methods (along with spaced study) as having the highest potential utility for improving student learning (Dunlosky et al., 2013). Practice testing has direct benefits on learning, in that the act of retrieval reinforces learning and reduces forgetting of the information retrieved. It also has indirect benefits on learning by providing students with an indicator of how well they know the information, identifying what information does and does not need further study, and encouraging students to space their study. Tests should therefore be used in courses not just as tools for assessment and assignment of grades, but also as tools to enhance student learning and retention. This presentation will describe a "mastery model" of practice testing in which students complete multiple practice tests, with feedback, such that the number of practice tests is based on each student’s individual mastery of the concepts. Testing is fully automated, using Canvas to deliver the practice tests and feedback, such that instructors do not need to devote valuable class time to the practice tests, or devote time and effort toward checking answers and providing feedback. The impact on exam performance will be discussed, along with students’ impressions of the technique.