



Students' Perceptions of and Experience With Online Test Preparation (Rehearsal) and Testing


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ABSTRACT

This study investigates students' perceptions of rehearsal (test preparation) and testing after the pandemic forced increased online teaching use and experimentation. Data was gathered from information and decision sciences (IDS) students in an underrepresented minority (URM) serving university. Responses from 136 participants were analyzed and revealed four major findings. The single most interesting finding was that students, on average, preferred graded rehearsal activities over optional activities. Second, rehearsal activities were more important in online than face-to-face settings. Third, students overwhelmingly prefer online exams, on which they feel they perform better and which they find less anxiety-producing. Finally, despite research showing the importance of online proctoring for major defined-answer testing, instructor use of proctoring and monitoring is split between those who do and do not use concrete methods, with lockdown browser being common and live webcam less common. These interconnected findings are discussed.

KEYWORDS

Online Education, IDS Online Education, Online Testing, Online Rehearsal Strategies, Online STEM Education

INTRODUCTION

The landscape of education has undergone profound changes in the wake of the COVID-19 pandemic, particularly in the realm of online learning and assessment. As institutions adapted to remote instruction, the methods employed for testing and student preparation became pivotal to understanding student success. This exploratory study aims to fill a critical gap in the literature by examining students' perceptions of rehearsal and testing in an online educational environment, specifically among students in information and decision sciences (IDS) at an underrepresented minority (URM) serving university.

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Effective test preparation is essential for optimizing student performance and engagement, and the unique dynamics of online learning introduce new challenges and opportunities. The dual processes of input—where learners acquire knowledge through readings and lectures—and practice—where they engage actively with the material—are crucial to achieving academic success. However, reliance on passive learning methods can hinder performance, making it vital to explore more interactive and supportive rehearsal strategies.

In this study, we investigate students' preferences for various test preparation methods, including the effectiveness of instructor-designed materials and the impact of online exam formats. We also examine students' views on proctoring practices, an area that has become increasingly relevant as educational institutions seek to maintain integrity in online assessments. By gathering and analyzing data from 136 IDS students, our research seeks to illuminate the complex interplay between preparation methods, testing modalities, and student anxiety, ultimately contributing valuable insights to the ongoing discourse on online education in a post-pandemic world.

The methods of testing as well as the support students get from instructors for test preparation opportunities are important in any setting. Since online settings affect the nature of testing so substantially and supportive virtual techniques significantly impact students' success, it is critical to investigate students' perceptions of online practices in this regard. However, careful investigation of online test preparation in the post-COVID period is disjointed and incomplete and testing patterns research is scarce.

As a brief overview and identification of the focus of this study, education can be viewed as a process of (a) inputs, (b) practice, and (c) testing (Van Wart et al., 1993). In the input stage, learners are exposed to facts, concepts, and knowledge of skills primarily through various types of readings and face-to-face or virtual lectures. While the input stage has critical importance overall, educators' overreliance on what is generally considered "passive" learning during this stage has long been a standard theme in higher education teaching for decades (e.g., Bligh, 2000; Chickering & Gamson, 1987; Al Shloul et al., 2024). Researchers have noted many students—after their initial exposure to readings and lectures—also tend to rely too heavily on passive review of readings, lecture notes, recorded lectures, and so forth. (Karpicke et al., 2009; McNulty et al., 2012; Rohrer & Pashler, 2010; Børte, Nesje & Lillejord, 2020). While passive input is useful initially, its utility declines dramatically in comparison to practice-based (aka "active learning") techniques or even becomes dysfunctional if it replaces practice altogether (Rickard & Pan, 2018; Roediger & Bulter, 2011; Rowland, 2014).

Practice itself can be divided into different stages (Salisbury, 1988). Earlier in the learning process, practice is variously called drill work, recitation (e.g., in small groups), homework, and so on. It is most useful for learning key concepts and terms, clarifying basic understanding, and providing simple application problems. Later in the learning process, practice is sometimes called test preparation or rehearsal (Flippo et al., 2018). It includes methods like the use of instructor-designed study guides, practice quizzes and tests, automatically scored problems, and synchronous review sessions. In terms of practice, this study is interested only in instructor-designed test preparation which we will call either rehearsal or instructor-guided review-and-study assistance.

The bulk of testing and assessment normally occurs at or toward the end of the learning process after the input and practice phases. However, testing and assessment can include not only the standard, end-of-module and end-of-term exams but also low-stakes, graded, formative practice and major assignments such as presentations, term papers, and performance reviews that occur during the learning process (Kubiszyn & Borich, 2000). This study focuses on student perceptions of the comparison between face-to-face versus testing modalities, as well as the associated proctoring and monitoring methods that students experience.

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