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Abstract
A number of factors can influence learning from lectures such as students' prior knowledge, their motivation, the instructional design, the lecturer and so forth. Instructional aid techniques such as preparing class notes, giving quizzes (either planned or spot quizzes) and the like can be used to maximise learning. This study uses two well-documented tools for learning from text—advance organisers and higher order questions—adapted for use with podcasts. Student evaluations of their experience of being primed for lectures with podcasts are described. The findings show that audio advance organisers and questions experienced by students have a positive influence on learning, because they help students bridge the conceptual distance between new and prior knowledge, better understand the topics in the lectures and stimulate thinking more deeply about the lecture's content and the possible applications of the subject of the lecture.

Introduction

Well into the 21st century, lectures are still the dominant form of teaching in most institutions of higher learning. The exact benefit from a lecture is hard to predict. Some students prepare for them, whereas others expect to "learn it all" from the instructor during the lecture. Some students already have knowledge of the lecture topic, whereas others lack background knowledge and profit poorly from the new information. Also, instructors use lectures for different reasons. Some use them to rehash what was in the required readings, whereas others use them to broaden and deepen the readings. All of this means that lectures are seldom as effective as they could be.

The constructivist view of learning emphasises the role of active cognitive processing in learners. A number of techniques can be used to enhance this learning from lectures. Mayer (2001, 2005) identifies three cognitive processes that enhance meaningful learning, namely *selecting* (ie, paying attention to incoming information), *organising* (ie, building a coherent cognitive representation) and *integrating* (ie, connecting new knowledge with prior knowledge). Ohlsson (1995) contends that for optimal learning, a learning design should be created around certain learning activities that he calls *epistemic tasks*. These are tasks that are meant to stimulate the learner to describe, explain, predict, argue, critique, explicate and/or define. Learning is expected to be maximised as a result of organising knowledge and engaging students in these learning activities.

In the research described in this article, a cohort of undergraduate psychology students were exposed to pre-lecture (ie, primer) audio podcasts, throughout one semester. The purpose