

The Use of Podcasting to Supplement In-Training Exam Review Sessions

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Learner Audience: The context for this educational innovation is a Department of Anesthesiology Residency Training Program with 46 residents. Many residents report that using a combination of learning styles (e.g. visual and auditory), repetition of material, and accessing materials at a time and place most personally convenient is helpful in learning and retaining complex topics.

Background: This Department of Anesthesiology conducts an annual nine week didactic lecture series directly preceding the In-Training Exam. The lecture series is delivered by several faculty members and covers all of the major categories of knowledge included in the ITE.

Needs Assessment: Although all anesthesiology residents are expected to take the annual In-Training Exam, many of them are off service or on away rotations during some or all of the nine week lecture series or are otherwise unable to attend some of the lectures due to clinical or other duties. The ITE review series has been highly valued and rated by residents in past years, and is thought to be helpful in their studying process. In previous years, residents had access to copies of PowerPoint presentations and handouts via an on-line repository. However, much of the valuable teaching occurs in the "off the slide" discussion, examples and answers to questions. In addition, handouts alone do not accommodate those residents with a preference for auditory learning. In order to make the didactic materials available to all residents, regardless of ability to attend the daily didactic sessions, our department recorded audio and video podcasts of each session and made them available for download the same day.

Hypothesis: The availability of podcasts for lectures conducted as part of the ITE Review Series will increase residents' access to the materials and accommodate additional learning styles in order to more effectively and efficiently study for the annual exam.

Curriculum Design: All didactic presentations for the ITE Review Series were developed by creating PowerPoint slides by the individual lecturer. Lectures were held four mornings per week for nine weeks. Residents had the option to attend lecture, download the podcasts, or both on any given day during the series. The Anesthesiology Information Technology (IT) team developed a podcast kit allowing the lecturer to record their presentation in the podcast format using a Macintosh computer. The IT team provided brief training sessions (approximately 10 minutes) in order to familiarize lecturers with the setup, how to launch the lecture recording program, and how to start and stop the recording. After the lecturer finished recording, the file was automatically uploaded for processing to the Podcast Producer 2 (Apple Inc., Cupertino, CA) server. Once the podcast was complete, Podcast Producer 2 automatically published it to an online iTunes University location. All completed podcasts are archived within the iTunes U repository allowing anesthesiology residents to download presentations using a Mac, PC or iPhone, at a time and place of their choosing.

Outcome: All ITE Review Lecture Series didactic presentations were captured as podcasts and made available on iTunes U the same day as the lecture. The Program Director and Education Specialist conducted semi-annual meetings with residents in order to discuss educational progress and satisfaction with the training program. Several residents discussed their experiences with the podcasts during these one-on-one meetings and have expressed desire to have them continue for other lecture material. In addition, in our anonymous survey for the Department's annual education retreat, we surveyed residents about strengths and weaknesses of the educational program. Several residents commented in the survey that they are thrilled with the addition of the podcasts. Specific benefits cited include the ability to review specific parts of the lecture that may have been complex and not fully understood at first, and the ability to access important didactic content when lectures were missed. Development and implementation of podcasts is low cost, user friendly, and reproducible across institutions.

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Lecturers had no formal technology training prior to implementation, and were able to utilize familiar technology (PowerPoint) to develop and deliver their presentations. Future research will investigate whether residents continue to prefer podcasts to traditional lecture formats, and if ITE scores improve as a result of this educational method.