



EMURMUR UNIVERSITY CASE STUDY

Improving the audio quality of heart sounds and murmurs in traditional teaching programs

THE CHALLENGE

For years, medical and nursing programs have found it difficult to teach cardiac auscultation effectively in lectures and case-based learning (CBL) environments using the current tools available. Web tools are often outdated, composed of mechanical audio files, and not ideal for the workflow of teaching scenarios.

Instructors can struggle to quickly compare audio files (i.e. normal vs abnormal heart sounds or systolic vs. diastolic murmurs), which limits students' ability to grasp introductory concepts and learn the subtleties between sounds. In addition, playing sounds through computer or auditorium speakers decreases the quality and authenticity of the sounds, making it difficult for the instructor to mimic a bedside listening environment.

WHAT ARE EMURMUR UNIVERSITY & EMURMUR PRIMER? CAN THEY HELP MY PROGRAM?

eMurmur University and eMurmur Primer are interactive apps for instructors to teach, and for trainees to build their confidence with cardiac auscultation. eMurmur University engages students in their learning by enabling instructors to stream real patient heart sound recordings through virtual classrooms directly to their students' devices. Instructors can perform group testing with students and receive immediate summaries of the answers submitted. eMurmur's exhaustive heart sound library contains many examples of pathologic and innocent murmurs, healthy heart sounds and more.

eMurmur Primer offers a series of self-directed learning modules on a student's mobile device. Learners can access listening modules and relevant background reading material related to heart sounds and murmurs at any time. Faculties, along with students can use eMurmur Primer to reinforce classroom teaching, support off-campus learning, and/or test individual proficiency levels.

BOOK A DEMO

✉ sales@emurmur.com

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I enjoy the simplicity of the app - the ability to stream to students and quickly switch between sounds like aortic stenosis and mitral regurgitation, or an S3 and an S4. I don't need to spend time refreshing a webpage or navigating through a program to find the sounds I want. The app also allows me to assess my students in real time and comment on their learning right away.

Nadine Gauthier, MD, MEd, FRCPC

Division of Cardiology, University of Ottawa

Before eMurmur University, user Dr. Nadine Gauthier was streaming patient heart sounds through various web-based tools to complement her teaching material. However, she found it was difficult to switch from one sound to another in a timely fashion, preventing her from comparing normal and abnormal heart sounds. As a result, Dr. Gauthier was in search of a tool that would create a more seamless teaching and learning experience.

“eMurmur's heart sound quality is much better compared to the previous audio files played from the auditorium speakers. Instructors and tutors really enjoy the app's real-time feature and how convenient it is to use. Students learn the most by comparing the sound of one pathology to another, so with eMurmur University, I can easily do so without it being a big production.”

Seeing that students enjoy using eMurmur University during lectures, they have also found eMurmur Primer to be useful for reviewing class material during individual study sessions. The listening modules allow students to learn at their own pace and in their preferred learning environment.

“At home, students can review class material while using eMurmur Primer to complement their revision. They've said that eMurmur Primer is helpful because now they “get it.””