



## CAME Voice/Voix

### **Using Visual Modelling Software to Train Students in Thoracic Imaging**

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Chest X-rays are the most frequently requested radiologic examination. Every medical student must learn the basic principles of interpretation of this type of thoracic imaging and be able to link it to relevant clinical cases. Visual modelling software can be used to reach this LMCC requirement.

In the fall of 2014, all 300 second-year medical students at Université de Montréal took part in a pilot project that used visual modelling software to train them in thoracic imaging. As part of their Respiratory Medicine course, the students learned to interpret chest X-rays with the help of a self-learning module, problem-based learning (PBL) activities with thoracic images, 6 hours of lectures and 3 hours of small group discussions with a radiologist.

The system used was Concordance Training (www.emerge-solutions.net), which students accessed online using a web browser. The instructor used the system to generate a series of exercises consisting of a visual image accompanied by a short clinical vignette that asked users to engage in clinical reasoning in response to the challenges the exercise presented. During the last week of the course, the students were given online access to the software. After taking the tutorial, each student had to evaluate 10 cases, each containing a chest X-ray. For each case, students had to complete the following two actions: highlight or outline the main anomaly ("Show me what you see") and select the term or terms to describe what they see from a list of choices ("Describe what you see"). After submitting their answers, students had access to immediate feedback from the professor and additional suggestions for improving their visual perception and clinical reasoning skills.

According to data from a post-course survey, the students responded very positively to the visual modelling software. The instructor and a Université de Montréal medical education research team are in the process of validating a digital method of evaluating how to quickly identify the images that are most problematic for students as well as the students with visual perception problems.

Link to the poster presented at CCME 2016 in Montreal

[http://fr.slideshare.net/CPASS\\_UdeM/projet-pilote-de-concordance-de-perception-en-imagerie-thoracique-description-dune-experience-pdagogique-auprs-dune-cohorte-dtudiants-en-2me-annee-de-mdecine](http://fr.slideshare.net/CPASS_UdeM/projet-pilote-de-concordance-de-perception-en-imagerie-thoracique-description-dune-experience-pdagogique-auprs-dune-cohorte-dtudiants-en-2me-annee-de-mdecine)

Pilot project available for consultation upon request; if interested, email:

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