



#foundbunny

## Education Research - Drawing and Technology

October 16, 2019

Museum of Natural History, Halifax  
Panel Discussion from 7 pm to 9 pm

Museum of Natural History Auditorium – Free Admission

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As part of the 2019 Big Draw Festival, the Nova Scotia Museum is hosting a series of exhibits and events to promote the value of drawing for creativity and wellness. Join us as we learn about new approaches and the latest education research focused on drawing and education. Members of the NSCAD Drawing Lab and Faculty from Dalhousie University will share updates on their research interests and approaches to studying the importance of drawing for learning and wellness. This session of great interest to high-school and university educators, and those interested in the value of drawing in education.

**Panel Speakers:**

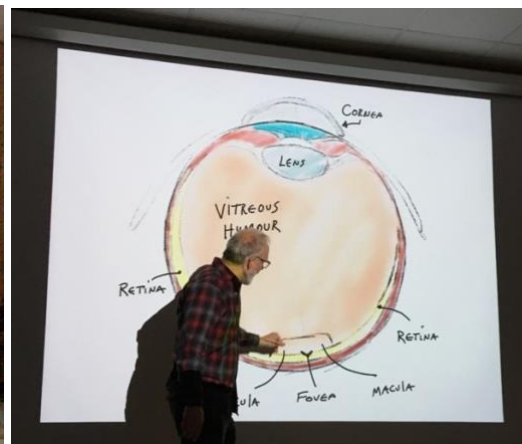
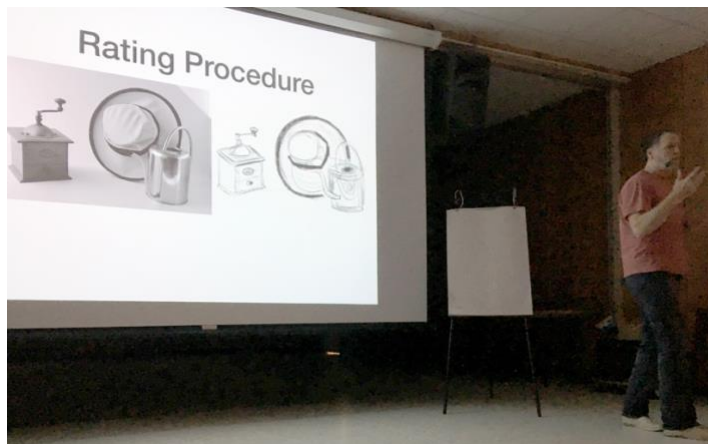
- Dr. John Christie, Experimental Psychologist at Dalhousie University and member of the NSCAD Drawing Lab, will present a summary of their research approach and findings. The Drawing Lab formed in 2005 and has been using eye-tracking technology to do research on how to improve drawing education.
- Dr. Anne Marie Ryan, Senior Instructor at Dalhousie Earth Science, will present a summary of her research interests and overview of why drawing matters in science education. Anne Marie will also give a brief summary of her plans for using eye-tracking technology for education research.

## #DrawnToLife Panel Discussion – October 16, 2019

An evening panel discussion titled **Education Research: Drawing Technology** at the Museum of Natural History was part of the events for the 2019 Big Draw Festival. The panel discussion involved members of the NSCAD Drawing Lab, a collaborative research group with members from NSCAD University and Dalhousie University experimental psychologists, and Dr. Anne-Marie Ryan, a nationally recognized educator from Dalhousie Earth Sciences.

The event was organized at the museum to provide an opportunity to share information about new research methods, findings from previous studies, and to explore best practices in teaching and the use of drawing in education programs.

### NSCAD Drawing Lab

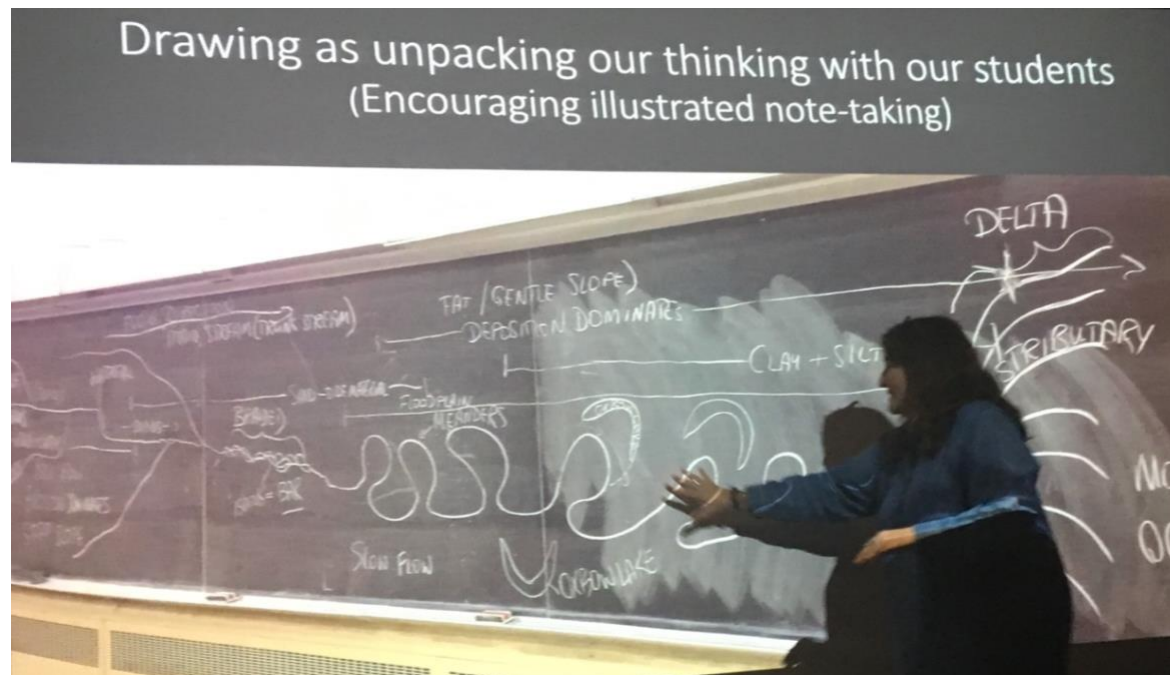


Dr. John Christie, Experimental Psychologist at Dalhousie University, and Mathew Reichertz, Associate Professor at NSCAD University, are members of the NSCAD Drawing Lab research group. They provided an overview of three recent studies that examined the relative importance of the fovea and peripheral vision systems for observing and drawing scenes, and benefits for drawing accuracy of focused observing or describing a scene before drawing.

The **NSCAD Drawing Lab** was formed in 1995 as a collaboration between Bryan Maycock (NSCAD) and Dr. Raymond Klien (Dalhousie University). Initial studies of the Drawing Lab used eye-tracking devices to study eye movements during drawing. Participants eye movements and drawings of specialized shapes and scenes were recorded and used to improve drawing instruction.

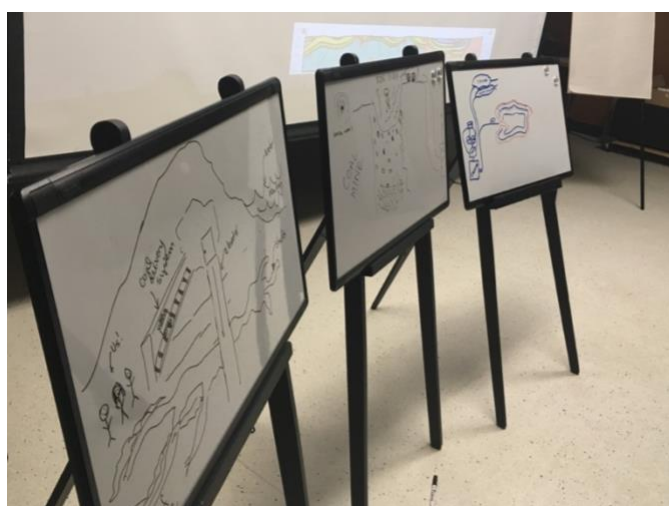
<https://nscaddrawinglab.nscad.ca/>





Dr Anne-Marie Ryan, Senior Instructor and 3M Teaching Fellow at Dalhousie Earth Sciences, demonstrates how she embeds drawing into teaching practices and role models the use of drawing for knowledge construction.

Dr Ryan provided an overview of several ways she incorporates drawing into university level education programs and the importance of visual skills in earth science. Drawings are used by learners to construct and share ideas during learning, as adult learners build upon their scaffold of knowledge and experiences. The value of drawing for learning visual codes and depictions in a geology (or any profession) was highlighted through the complex scenes and maps that are part of learning.



## Discussion

Following the presentations the audience members asked questions related to the experimental design and findings. Audience members included a selection of faculty and students from NSCAD and Dalhousie University, and staff from the museum.

- The relative value of assessing drawing accuracy by experts versus experiment participants was highlighted.
- The use of eye-tracking for future studies of expert versus novice geologists was discussed. How students learn and adopt visual systems within professional education programs may provide further insights into how drawing contributes to learning and discovery.
- Discussion and questions about how we encourage students of all disciplines to use drawing for their learning and future professional practice.
- Audience members identified importance of encouraging drawing what you see, not what you think is there. Drawing to observe more critically.
- Knowledge about how fundamentals of vision and how drawing supports learning can be framed within the growing importance of visual literacy in the digital age.
- New technologies will surely incorporate new ways to draw, but the fundamental benefits of slowing down and observing carefully will remain as technology evolves.
- What roles can museums play in promoting the value of drawing for personal learning?

This Big Draw panel discussion event was an opportunity to bring together educators and education researchers together to discuss the value of drawing in university level education programs. The event resulted in a positive discussion among the participants and may support future collaborations.