PUBLIC LECTURE

THE UNSW EDUCATIONAL PSYCHOLOGY RESEARCH GROUP INVITES ACADEMICS, PROFESSIONALS, PRACTITIONERS, AND STUDENTS TO:

‘Using Biometric Technologies to Understand How School Students Engage with Others During Cooperative Group Activities in Science’

Monday May 15th, 2pm-3pm, Room 119 Level 1, John Goodsell Building, UNSW (Kensington Campus)

By Professor Robyn Gillies, University of Queensland

Overview

This presentation will discuss recent research conducted in the context of teaching cooperative inquiry to school students in science lessons. The research examined students’ use of multimodal representations during an inquiry problem-solving science activity. The focus was on investigating students’ level of cooperation and physiological arousal as they worked together during a whole-class and small group activity. The results demonstrated that not only was there a high-level of common engagement during whole class activities and the cooperative group activity, but this was also reflected in the physiological measures of synchrony between students. By integrating the video and biometric data with the data from the students, the research provided a rich picture of the relationship between the teacher’s use of multimodal representations and the students’ use of scientific language and physiological engagement during a cooperative small group activity in science.

Biography

Robyn Gillies, PhD, is Professor of Education at the University of Queensland who has worked extensively in both primary and secondary schools to embed STEM education initiatives into the science curriculum. Her STEM research has been funded by grants and contracts from the Australian Research Council, the Department of Education and Training (DET), the Queensland Museum Network (QMN), and the Office of Learning and Teaching (OLT). Professor Gillies is a CI on the ARC Science of Learning Research Centre (SLRC) where she has been instrumental in implementing science-based research projects in primary and secondary schools to help teachers embed inquiry-science pedagogy into their science curricula. Her recommendations on how teachers can translate research into practice have been widely profiled in the international literature and on the website of the Smithsonian Science Education Center in Washington, DC.