CORF

INTERACTIVE WORKSHOP – HOW TO EASILY RECREATE THE HANDS-ON LEARNING **ACTIVITIES IN AN ONLINE ENVIRONMENT IN** STEM FIELDS

Michael Kasumovic

Associate Professor Michael Kasumovic (m.kasumovic@unsw.edu.au) School of Biological, Earth & Environmental Sciences, University of New South Wales, Sydney NSW 2052, Australia

Online teaching and learning are now the new normal. Despite this rapid shift to online, lecturers still have no reliable means to provide students with hands on learning opportunities, especially in STEM related fields. As a result, universities are struggling to provide interactive and social activities to replace the in-person activities they had in tutorials and laboratory practicals.

In this workshop, I will highlight the suite of mobile applications and games I have co-designed with scientists and researchers to help excite and engage students in STEM fields. These apps are intuitive and designed to encourage students to interact with one another to easily and quickly collect and visualise data in real time so they can practice critical thinking and teamwork, developing necessary soft skills. This means experiments are accurately completed in 10 minutes, allowing teachers to spend more time with their students. With over 30 different apps that help teachers engage their students in biology, maths, chemistry, psychology, ethics - these apps teach across an integrated curriculum.

I will also highlight how I have developed an engaging and interactive online approach and presence to deliver my online teaching. I will demonstrate the hardware and software I have assembled to be able to perform these lessons. Come prepared to be part of the workshop and work together with others exactly as your students would.

Proceedings of the Australian Conference on Science and Mathematics Education, 30 September - 2 October 2020, page 137, ISBN Number 978-0-9871834-9-1.