

# SCIENTIFIC WRITING: BRIDGING THE GAP BETWEEN YEAR 12 AND FIRST YEAR STEM COURSES

Brijesh Kumar, Collen Kaesehagen

Presenting authors: Brijesh Kumar ([brijesh.kumar@jcu.edu.au](mailto:brijesh.kumar@jcu.edu.au)), Colleen Kaesehagen ([colleen.kaesehagen@jcu.edu.au](mailto:colleen.kaesehagen@jcu.edu.au))  
Learning Teaching and Student Engagement, James Cook University, Townsville QLD 4810, Australia

**KEYWORDS:** scientific writing, STEM, resources

Academic staff in first year STEM subjects have identified the limited preparedness of first year university students in the area of scientific writing, as a concern. We have all learned how to write (good) scientific papers. How we learned to write is probably different. This workshop will focus on some common expectations all scientific papers have such as a review of the current state of knowledge on the subject; justification of the need/importance for the research to be conducted; ensuring hypothesis being tested is well explained; results are interpreted in relation to current state of knowledge; identifies the scientific questions and procedural weaknesses that need to be addressed in the future. The question is how best to teach scientific writing to students? Do we teach the students as we learned or is there a better way of doing it?

The objectives of the workshop are to network

- good teaching practices for teaching scientific writing
- appropriate resources for teaching scientific writing
- how to embed the development of scientific writing within the curriculum with minimal impact on academic workload
- generated ideas as an eBook.

## Workshop Description

The workshop will be interactive with open discussions. The focus will be on how to improve our first year students' scientific communication (writing). All the ideas generated will be compiled and circulated among workshop participants. There will be a 1 x 90 minute workshop with 25 participants.

## Biographies of workshop leaders



**Brijesh Kumar** (BSc(Hon), PGDip(Teaching), MMedSc(Pathology) and MSc) is currently a Learning Advisor (Math and Science) with Learning Teaching and Student Engagement, at James Cook University working to provide learning and assessment support in collaboration with academic staff. He is an enthusiastic science educator with a passion for engaging and enabling students in the science and maths space.



**Colleen Kaesehagen** (Dip Teach, BEd, MEd) is also a Learning Advisor at James Cook University. She plays a key role in the Language and Learning team, which works with staff to embed academic literacy, language and numeracy development within the curriculum. She is passionate about improving the literacy and numeracy skills of students.

Proceedings of the Australian Conference on Science and Mathematics Education, The University of Queensland, Sept 28<sup>th</sup> to 30<sup>th</sup>, 2016, page 154, ISBN Number 978-0-9871834-5-3.