

COMMUNICATION IN UNDERGRADUATE SCIENCE – HOW CAN WE BETTER ENGAGE STUDENTS?

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ABSTRACT

Communication is a ubiquitous graduate attribute and learning outcome for undergraduate science degrees across the world and an invaluable tool for students to demonstrate their learning. Most undergraduate science students in general science degrees engage poorly with communication tasks and all too often do not see the relevance of communication to their role as scientists. Simultaneously most academic staff teaching into science degrees are familiar with only a narrow set of communication tools and approaches, and often no theory, despite them recognising the value of effective communication. This results in a narrow range of somewhat outdated communication tasks being assessed. This ideas exchange session aims to stimulate detailed discussions and direction for the education of undergraduate science students in communication and discuss how to obtain evidence to inform decisions about what communication students should learn. Participants will be asked what communication practices, models and principles should undergraduate science students learn to better engage them with communication? And how might evidence be obtained/sought to support decisions about what communication to teach and/or development of a framework for educating science students in communication? One option is to document outcomes of such discussions in documented in a framework to help inform best educational practice. We welcome discussion with colleagues interested in furthering these ideas.

THE ISSUE

- Most undergraduate science students in general science degrees engage poorly with communication tasks and all too often do not see the relevance of communication to their role as scientists.
- Simultaneously most academic staff teaching into science degrees are familiar with only a narrow set of communication tools and approaches, and often no theory, despite them recognising the value of effective communication. This results in a narrow range of somewhat outdated communication tasks being assessed.
- This ideas exchange session aims to stimulate discussion about what communication practices, models and principles should undergraduate science students learn to better engage them with communication.

THE APPROACH

- Our approach is to initiate detailed discussions and direction for the education of undergraduate science students in communication and discuss how to obtain evidence to inform decisions about what communication students should learn.
- This approach builds upon research by Stevens (2013), Mercer-Mapstone (in progress) and XXX et al (2013) which demonstrate that a very narrow array of communication tasks are typically assessed and poorly scaffolded/taught in Australian universities. It also builds upon current research that identifies essential elements of science communication to non-technical audiences from the literature and Australian experts in this field (Mercer-Mapstone and Kuchel, in progress).
- Our aim is to extend and develop ideas gathered from ideas exchanges like this into an OLT project to help guide the higher education sector and scientific community in how to improve science graduate outcomes related to communication.

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