

CLIPS: COMMUNICATION LEARNING IN PRACTICE FOR SCIENTISTS

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Background

Strong communication skills are key graduate attributes¹. Incoming students have diverse communication abilities (ranging from very weak to very strong) but in science, large classes make it difficult to use in-person feedback and mentoring to remediate, support, and further develop students' skills. Students are also unsure of the achievement standards we expect as they communicate scientific data and concepts; their confusion is intensified by inconsistent instructions and marking across courses.

Aims

We aim to provide academics with a centralised resource to share with students that delivers detailed information on key communication activities in science.

Description of intervention

CLIPS (Communication Learning In Practice for Scientists) is an accessible online resource for students that integrates with existing science course sites. The CLIPS website is an online resource that provides students with access to communication resources through the existing Blackboard Learn framework.

Design and methods

The CLIPS website is comprised of a number of modules based on key common assessment items, including short-answer questions, posters, presentations, and displaying data. Each module includes guidelines for planning, designing, or presenting the communication activity; poor and high quality examples; animations; and interviews with academics that outline their expectations for assessment items.

In contrast to the often bland design of course websites, the CLIPS website uses simple, striking design and coding to provide students with a visually appealing and interactive resource for communication tasks. Since it is delivered through our LMS, however, it is easy to keep current.

Results

CLIPS provides a unique experience for students accustomed to receiving course materials through the Blackboard Learn platform. Academics can easily provide access through their existing courses and direct students to modules related to specific assessment items. This enables academics to provide students with quality, standardised communication resources so that they do not have to explicitly teach communication skills themselves.

The 'academic explains' section gives academics an opportunity to address common problems with student assessment items and discuss field-specific advice that may not have been covered in the other sections of the CLIPS website. To ensure that the resources provided are suited to the needs of students we are collaborating with academics across all disciplines within the faculty of science.

CLIPS will be delivered in courses at the University of Queensland in Semester 2 2016 for the first time. We will evaluate the student responses to the modules using online analytics, pre-post testing, and interviews.

Conclusions

The introduction and revision of core communication skills can be time and labour-intensive for students and lecturers. CLIPS increases the flexibility of modes of study by providing targeted online media that lecturers can use to support students, and which students can review in their own time. This frees up time for enhanced student-teacher interaction in the classroom.

CLIPS will be presented as an e-poster so conference delegates can browse the site content.

References

1. Colthorpe, K., Rowland, S., Leach, J. Good Practice Guide (Science) TLO 4 Communication. OLT, Sydney (2013)

Proceedings of the Australian Conference on Science and Mathematics Education, The University of Queensland, Sept 28th to 30th, 2016, page 65-66, ISBN Number 978-0-9871834-5-3.