

MATHBENCH: IMPROVEMENT OF QUANTITATIVE SKILLS FOR LIFE SCIENCE UNDERGRADUATES VIA ONLINE MODULES

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Abstract

Much has been reported on the need to improve quantitative skills (QS) in science. Finding ways to respond to this has been the subject of many recent studies. The MathBench-Australia project responded to the need for blended learning resources that target undergraduate QS in biology. The MathBench biology modules were originally developed at the University of Maryland (UMD), USA. The MathBench-Australia project contextualized and adapted the modules for the benefit of science undergraduate students in Australian universities, in collaboration with colleagues of the MathBench-USA team.

The choice of biology as the science discipline of focus is aligned with the Chief Scientist's (2012) report on the persistent popularity of biology courses not only among first year but among continuing undergraduate science students in Australia. Brown (2009), in his report to the Group of Eight universities, noted that good mathematics preparation was an advantage for Australian science students, even for those studying "biology, a discipline not traditionally associated with strong mathematics preparation". Thus, it was anticipated that uptake of learning resources such as MathBench could have a significant long-term impact on the improvement of QS among science students in Australia. Indeed, this was observed in our OLT-funded MathBench-Australia project grant, among our partner universities, which will be presented and discussed in this presentation.

References

- Office of the Chief Scientist. (2012). *Health of Australian Science*.
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- Proceedings of the Australian Conference on Science and Mathematics Education, The University of Queensland, Sept 28th to 30th, 2016, page 128, ISBN Number 978-0-9871834-5-3.