University-wide integrated STEM support at QUT: STIMulate

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Abstract

This poster describes the design of STIMulate, the maths, science and IT supportfor-learning program available to all coursework students at QUT. The program operates a wide range of complementary modes of delivery to cater for the diverse learning needs of individuals across the university.

University-wide STEM support

STIMulate integrates a range of approaches to facilitate independent learning and academic success of students across QUT. This resonates with Zepke and Leach's (2010) actions to improve student engagement. The program utilises the skills and expertise of trained student volunteers, as well as a team of dedicated academic staff, to provide one-to-one and one-to-many support for students.

The program builds on current peer-to-peer support literature (Latino et al., 2012) utilising a university-wide model. Student volunteers operate "drop-in" spaces where students can visit during office hours, while the academic team run group support sessions supplementing many units, and support students using online modes of delivery. In addition to the traditional STEM disciplines, STIMulate supports students from other disciplines, such as Education students with numeracy skills and Nursing students with anatomy and medicine calculations.

STIMulate has undergone iterative development since inception in 2013 that parallels trends within the sector (Nelson et al., 2011). The uniqueness stems primarily from the scalability to a wide audience and provision of support using multiple approaches, including peer-to-peer support and a close relationship with academic teaching staff. This enables the university to respond to the learning needs of students and provide feedback to academic staff in a proactive and timely manner. The model can provide insight into the possibilities that exist for academic support in higher education.

References

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