

# EXPLORING ATTITUDES TOWARDS STUDENT – ACADEMIC PARTNERSHIP IN SCIENCE

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## Aims

In this study six academics and six students from both the University of Queensland and McMaster University will partake in semi-structured interviews to explore general attitudes and opinions towards Students as Partners within the sciences as a concept. Analysis of data will identify themes which will inform the design of an online survey which will become available to all students and academics within the biosciences at each institution. Comparative analysis between institutions and various demographic factors will be explored, and recommendations for implementation of partnership opportunities will be generated.

## Sources of evidence

To foster the active learning process we must reassess how students are being engaged with their studies. *Students as partners* is an emerging concept in the engagement field where student-academic partnership is framed as a process of student engagement as opposed to an outcome (Healey, 2014). There are currently few case studies due to the infancy of the field, however positive results have already been shown. A UK science skills co-creation initiative resulted in high quality teaching materials, and just as importantly academics commented on their surprise that students were capable of such work: a distinct change in attitude due to exposure to the concept (Woolmer, 2016). A second study by Diaz et.al (2013) explored staff views on partnership in various areas and situations, but interestingly no student views were taken. This paper highlighted that support for partnership opportunities varies depending on the context, indicating an area for further exploration with both academics and students.

## Main argument

In the 21<sup>st</sup> century it is no longer enough for STEM graduates to have acquired extensive knowledge, rather it is the ability to apply information to perform tasks and solve complex problems. The traditional hierarchical structure of higher education has yet to evolve to prepare graduates for these roles, rather it still focuses on one-way fact acquisition as the ultimate purpose of higher education. In this model students become metaphorical sponges, responding to information academics provide, and learning how to answer examination questions. This learning environment places all responsibility for engagement on the student despite engagement being an interaction. This encourages self-identification as a passive consumer rather than facilitating the process of becoming an 'effective lifelong learner'. Employability in real world terms requires skills including problem-solving, communication, proactivity and creativeness, all of which require active learning processes to develop.

## Conclusions

The significance of this research is that it explores a knowledge gap in that student views on partnership as well as motivation to participate have not been explored. Currently what is relied upon is the assumptions made by academics regarding student beliefs. By exploring both staff and student views on partnership in various areas and across demographics, areas of the higher education science curriculum that are potentially conducive to partnership can be identified. From analysis of the data a set of recommendations and guidelines can be generated which may aid in the implementation of partnership, increasing student engagement which has the potential to improve employability of our STEM graduates.

## References

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# WILL STUDENTS WATCH PHYSCASTS IF THEY ARE NOT ASSESSED?

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## Abstract

We introduce PhysCasts – short screencasts with audio narration that each explain a particular concept from the first year Physics unit Energy and Motion. These videos were produced to provide conceptual understanding and demonstrate problem solving by example to complement a peer-instruction approach in the classroom.

In this paper, we investigate whether students enrolled in a first year physics unit will watch these videos, even though they are not linked to assessment, and how those who do watch them perform in the first year unit. We find that PhysCasts have been very popular at Swinburne University of Technology, with students commenting on their usefulness on official teaching evaluation surveys, and watching them at a much higher rate (100 times higher) than lecture recordings. They are also integral to more recent blended learning approaches taken in teaching physics at Swinburne.

We have released 80 PhysCasts online as open educational resources, and are encouraging others to use our resources.

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