

## OLT Seed Project: Matching the background of demonstrators with those of their students: does it make a difference?

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Despite the widely acknowledged importance of laboratory work in the undergraduate science programs, there is evidence that laboratory experiences consistently fail to live up to student expectations.

A recent ACDS report (O'Toole 2012) recognised that *..the impact of the challenges posed [by learning in the laboratory] justifies investment in the development of demonstrators' competencies, both at the individual and group level, to realise the potential of science teaching laboratories.*



Lab at University of Cape Town, 2015



Super Lab at UTS, 2015

**OLT project:** The OLT is funding a Seed Project with an international dimension aimed at exploring student and demonstrator experiences in, and perspectives of, first year laboratories through surveys, structured interviews and observations in first year laboratories. **An outcome of this work will be improved strategies for recruiting and professionally developing demonstrators.**

**Details of the project** and preliminary findings can be accessed at: <http://www.unistars.org/papers/STARS2015/13F.pdf>

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**If you are interested in improving student experiences in undergraduate laboratories through better understanding of student/demonstrator interactions, please contact me** [Les.Kirkup@uts.edu.au](mailto:Les.Kirkup@uts.edu.au)

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### Reference

O'Toole, P. (2012). *Demonstrator Development: Preparing for the Learning Lab*. Retrieved 10 July, 2015, from [http://www.acds-tlcc.edu.au/wp-content/uploads/sites/14/2013/01/OToole13\\_ACDS-Report\\_Demonstrator-report.pdf](http://www.acds-tlcc.edu.au/wp-content/uploads/sites/14/2013/01/OToole13_ACDS-Report_Demonstrator-report.pdf)



Conventional Lab at UTS, 2014

## Possible OLT project for 2016

### **Students as learners, leaders and architects: reconceptualising curriculum design, development and delivery of student-centred, laboratory-based, activities**

The goal would be to effect systemic enhancement of the student laboratory experience and learning by adapting and expanding existing and emerging work on student-centred curriculum design and delivery, learning outcomes, and the design of new laboratory learning spaces.

Work planned, underway, or recently completed that would form the starting point for the project could include:

**Peter Meier et al., UTS, USyd and Flinders (OLT Seed grant proposal 2015):** *Large laboratory spaces: do they improve student learning experiences?*

**Kelly Matthews, UQ (OLT teaching fellowship, 2015):** *Students as partners: reconceptualising the role of students in science degree programme curriculum development*

**Mauro Mocerino, Curtin (OLT teaching fellowship, 2015):** *Enhancing learning in the laboratory: identifying and promoting best practice in the professional development of demonstrators*

**Chris Thompson et al., Monash (OLT extension grant, 2013):** *Taking inquiry-oriented learning to the teaching coal-face*

**Paddy O'Toole (ACDS commissioned project, 2012):** *Demonstrator Development: Preparing for the Learning Lab.*

**Susan Rowland et al., UQ (OLT project, 2012-):** *Developing and resourcing academics to help students conduct and communicate undergraduate research on a large scale*

**Scott Kable et al., USyd, Flinders, Deakin, Curtin and Adelaide (OLT project, 2012):** *Advancing Science by Enhancing Learning in the Laboratory*

**Les Kirkup, UTS (OLT teaching fellowship, 2011):** *Inquiry-oriented learning in science*

**Sue Jones et al., UTas (ALTC funded project, 2011):** *Learning and Teaching Academic Standards Project*

**John Rice et al., ACDS (ALTC project, 2008):** *Tertiary Science Education in the 21<sup>st</sup> Century*

**Interested? Please contact me (Les Kirkup)**