

Faculty of Science and Health

FACULTY RESEARCH COMMITTEE



Undergraduate Summer Research Internship Scheme 2017

Project Title: *Making learning in physics visible*

Principal Investigator: *Dr. Paul van Kampen*

School/Research Centre: *CASTeL/School of Physical Sciences*

Project Description

Project Aims

The new Junior Science specification was introduced in 2016. In-service teachers are being given workshops that help them understand and implement the specified learning outcomes – particularly those that pertain to skills and competencies.

The professional development program uses a Learning Intentions/Success Criteria approach to teaching, and the intention is that the module PS255, Physics Laboratories for Science Teachers, will be closer aligned to this approach.

At present, one-third of the module comprises 10 three-hour “workshops” plus 2 three-hour “microteaching sessions” (one in which the students prepare, the other in which they deliver the class). They all deal with different content and skills that can be self-assessed, peer-assessed, and teacher-assessed using a variety of techniques tailored to different objectives a teacher or the class may have. In the summer of 2017 all workshops will be adapted to implement a Learning Intentions/Success Criteria approach in a variety of ways.

Potential Candidates

You will support this adaptation for a period of 10 weeks. You will work on making the Learning Intention/Success Criteria approach visible in the module.

Every week there will be a journal club in which you, James Lovatt and Paul van Kampen discuss a research paper you deem important. Some of these will pertain to qualitative and mixed methods research, and discuss in depth what such studies add to the overall picture. There will be additional meetings as required.

Finally, together we will draw up a research methodology suitable for investigating the impact of changing PS255.

The position is open to all suitable applicants. Science Education students who think they may wish to carry out postgraduate research in future are particularly encouraged to apply.

For further information, contact: Paul.van.Kampen@dcu.ie