

**Teaching Teachers for the Future: Building the Educational
Technology Capacity of Pre-service Teachers in Australian,
Universities, Part 1**

Author

Campbell, Chris, Albion, Peter, Kearney, Matthew, Maher, Damian, Pressick-Kilborn, Kimberley, Zagami, Jason

Published

2012

Conference Title

Proceedings of Society for Information Technology & Teacher Education International
Conference 2012

Rights statement

© 2012 AACE and the Education & Information Technology Digital Library (EdITLib). The attached file is reproduced here in accordance with the copyright policy of the publisher. Please refer to the conference's website for access to the definitive, published version.

Downloaded from

<http://hdl.handle.net/10072/50595>

Link to published version

<http://www.editlib.org/p/39919>

Griffith Research Online

<https://research-repository.griffith.edu.au>

SITE Symposium

Teaching Teachers for the Future: Building the Educational Technology Capacity of Pre-service Teachers in Australian Universities

Chris Campbell

The University of Queensland

Australia

chris.campbell@uq.edu.au

Peter Albion

University of Southern Queensland

Australia

Peter.Albion@usq.edu.au

Matthew Kearney, Damian Maher, and Kimberley Pressick-Kilborn

University of Technology Sydney

Australia

Matthew.Kearney@uts.edu.au

Damian.Maher@uts.edu.au

Kimberley.Pressick-Kilborn@uts.edu.au

Jason Zagami

Griffith University

Australia

j.zagami@gmail.com

Abstract: The Teaching Teachers for the Future (TTF) project is funded by the Australian Government's Department of Education, Employment and Workplace Relations (DEEWR) through the ICT Innovation Fund and is an \$8.8 million project involving all 39 universities that are involved in teacher education. This symposium involves presenters from four of these universities who are working in various ways in the project. The first paper involves an overview of the project and a summary of some of the projects currently being conducted using the TPACK framework at the various universities. The second paper describes designing for explicit TPACK development. The third paper explores the benefits of prospective teachers creating and sharing new media in their professional learning activities. The final paper is about a Social Ecological Model (SEM) has been used to positively inform integration support efforts of individual academics through their personal, institutional, professional, societal and temporal perspectives on ICT integration.

1. Full Paper, hour 1

Setting the scene: The Teaching Teachers for the Future Project

Dr Chris Campbell
The University of Queensland, Australia
chris.campbell@uq.edu.au

Abstract: This paper will be providing a brief overview to the project, setting the scene and providing context for Australian higher education with relation to TPACK. This project aims to “embed ICT into everyday classroom learning by transforming the delivery of teacher education” (Department of Education Employment and Workplace Relations, 2010). With the project taking the notion that teachers who are expert at teaching ICT will assist universities to transform their teaching courses to include more ICT that improves pre-service teachers’ technological knowledge and thereby empowering the next generation of school teachers with the necessary skills to make ICT integral to their classroom pedagogy. This paper will emphasize the various approaches taken some of the 39 universities involved.

2. Full Paper, hour 1

Designing for explicit TPACK development: Evolution of a pre-service design and technology course

Peter Albion, PhD
University of Southern Queensland, Australia
Peter.Albion@usq.edu.au

Abstract: The Australian Government has funded the Teaching Teachers for the Future (TTF) project across all teacher preparation programs with the intention of enhancing the capabilities of graduate teachers for integrating Information and Communication Technology (ICT) in their classrooms. Although the project has focused on the first four subjects of the national curriculum (English, Mathematics, Science, and History) it is expected that the changes made in those areas will spread across teacher preparation programs. This paper describes the evolution and revision of a subject within a teacher preparation program to reflect the TTF focus on developing graduates’ Technological Pedagogical Content Knowledge.

3. Full Paper, hour 2

Driving pre-service science teachers' TPACK development through their generative use of digital video

Dr Matthew Kearney
UTS Centre for Research in Learning and Change
University of Technology Sydney, Australia
Matthew.Kearney@uts.edu.au

Dr Damian Maher
UTS Centre for Research in Learning and Change
University of Technology Sydney, Australia
Damian.Maher@uts.edu.au

Dr Kimberley Pressick-Kilborn
UTS Centre for Research in Learning and Change
University of Technology Sydney, Australia
Kimberley.Pressick-Kilborn@uts.edu.au

Abstract: An emerging body of literature explores the benefits of prospective science teachers creating and sharing digital video in their professional learning activities. A common theme is the facilitation of reflection on experience and a range of other potential professional learning benefits. This paper takes a snapshot of current developments with learner-generated digital video tasks in teacher education with a focus on pre-service science teachers' technological pedagogical content knowledge (TPACK). The paper draws on preliminary analysis of data from one of the 39 teacher preparation institutions participating in The Teaching Teachers for the Future (TTF) project, funded by the Australian Government.

4. Full Paper, hour 2

Social Ecological Model Analysis for Institutional ICT Integration Efforts

Dr Jason Zagami
School of Education and Professional Studies, Griffith University
Australia
j.zagami@gmail.com

Abstract: ICT integration of teacher preparation programmes is being undertaken by the Australian Teaching Teachers for the Future (TTF) project in all 39 Australian teacher education institutions and highlighted a need for guidelines to inform systemic ICT integration approaches. A Social Ecological Model (SEM) has been used to positively inform integration support efforts of individual academics through their personal, institutional, professional, societal and temporal perspectives on ICT integration. A pre-post test analysis using the SEM framework categorised the influence factors on each academic, determined the factor most likely to affect change in the integration of ICT in their curricula, and provided a dynamic measure of the likelihood of successful integration to inform the application of support measures and maximise institutional integration outcomes. Initial results suggest that the applied SEM model can be used to guide institutional ICT integration efforts.

The symposium will be organised around the papers with each member of the group presenting for 20 minutes each with 10 minutes for discussion after each person. It is expected that there will be time at the

end of the second hour for a general discussion on the project, TPACK and the future of pre-service teacher education training.