Great Teaching - Inspired Learning
2015 Post Graduate Forum
Tuesday 27th October (5pm-8pm)

McCaskill Music Centre
7th Annual Barker Post Graduate Forum

5.00 pm – Welcome from the Head of School - Mr. Phillip Heath

5.10 pm *Carol Sawyer* - Looking Forward – Information Technology in Education

Abstract: This presentation overviews my work in the Master of Education (Information Technology in Education and Training) course completed at UOW in 2014. Specifically, it outlines the latest policy trends and expected challenges within education today. *Semester 1* focussed on the need for evidence-based research in decision-making, appropriate application of technology to curriculum and the need for instructional design for online teaching. *Semester 2* reviewed emerging technologies within education, online learning and teaching and the global challenge within adult education. All subjects and essay topics emphasised the importance of constructing meaning to students while allowing for authenticity.

One such challenge raised, is the ubiquitous nature of mobile devices. As they become more affordable, students and teachers have an expectation that they can work or play when they chose. Policy goals urge educators to blend mobile learning with F2F classroom activities. What does blended learning look like? Can it be designed to improve student outcomes? An example, from course work on a wiki will be used to promote thought, discussion and provide some take-away tips.

5.35 pm *Kester Lee* - "Oh, you're doing a PhD. That sounds interesting. What field is it in?" Me: "Statistics." A gruesome battle then follows as the crickets and tumbleweeds vie for supremacy.

Abstract: In a nutshell, my PhD does two things: (1) develops a questionnaire to measure student interest in mathematics, (2) investigates predictors of interest in maths (e.g. parent education, parent interest, gender, year, achievement etc.). A statistical technique called structural equation modelling is being used and developed to power this analysis. Without going into the statistical nuts and bolts, I will present some preliminary results. One paper published earlier this year - what effect does the gendered system of a school (coed/single sex) have on student interest in maths? Many similar questions and results will be discussed.

6.00 pm *Andy Mifsud* - Notes from the field: Early observations from a blended classroom ethnography

Abstract: In the 1970s, British researcher Lawrence Stenhouse (1975) advocated the use of the classroom environment as a site for research into teaching and learning. This period saw the introduction and subsequent development of significant educational methodologies, such as the classroom ethnography (Woods, 1995), many of which are still utilised today. However as the classroom is an ever-evolving environment, approaches to educational research must also continue to develop. This session will explore how a classroom ethnography has been adapted to suit a blended learning environment that is one where interactions take place online and face-to-face. It will present some early findings on a research project conducted with Year 10 students at Barker College during eTime periods, and provide some reflections on this chosen methodological approach.

6.25 pm *Paul Harmon* - A cross-curricular project based around ICT, forensic science, geography and research skills. Considering the cross curriculum outcomes and the concept design for primary students.

Abstract: "It was a bright and sunny day in Sydney when the body was found. Flight QF32 had just arrived from Heathrow when John Doe was discovered under most gruesome circumstances. To contain the possible outbreak of disease, top forensic scientists from the Northside Gifted and Talented Network were immediately summoned to solve the sinister crime. Clues quickly revealed a tangled and complicated murder plot involving government agencies from around the world. Teams 'Intelligence', 'Reconnaissance', 'Geopolitics', 'Surveillance' and 'Code Break' were required to apply a broad range of expert skills in the areas of forensic science, geography, multimedia and music. Scientists worked in conjunction with INTERPOL and ASIO to piece together the fragmented clues and solve the crime. Interviews from first hand witnesses were scrutinised, along with the mapping of disease epidemics spread across various countries.

6.50 pm *Sarah Cormio* - How does building a robot enhance middle school boys' decision making skills?

Abstract: Maker learning practices develop participant's meta-cognitive thinking routines. These practices prioritise learning to learn by encouraging reflective assessment and evaluation of one's own thinking methods, in order to gain deeper understanding.

Inquiry based learning is a successful method to produce life-long learners and is a valuable teaching tool to equip boys for the challenges of learning in 21st century. The challenge of building a competitive robot was set to enable middle school boys to work both autonomously and collaboratively.

Mistakes or failures during the process were viewed as positive learning experiences and used to empower the students to persist when prototyping until the ideal product was attained. By utilising inquiry based learning participates were given many opportunities to reflect on their decisions. The process of Tinkering allows participates to learn in a context, which promotes ownership of their thinking and their actions. It removes the mind-set of excuses, pointing the finger and blaming

others. This multi-disciplined approach to learning encompasses Science, Technology, Engineering and Mathematics; it is the blueprint for the educational field of Maker Learning.

7.15 pm *Lainie Kalnins* - What is Zero Robotics?

Abstract: During this presentation I will be taking a look at the Zero Robotics program run through MIT and Sydney University and why we would want to participate in such programs, the importance of STEM and in particular programming in schools and how this is raising the self-efficacy of students.

7.40 pm *Len Nixon* – Towards a Sustainable Coaching Model

Abstract: As Barker College develops the College of Teachers and implements a Coaching Model within the school, various approaches to professional learning have been evaluated and considered. This session will provide an overview of the proposed model and the various key components that contribute to a successful culture of coaching in an educational setting.

8.00 pm Close