

# Education Matters: Innovative Social Science Research

School of Education  
The University of Queensland, St Lucia

21 - 22 September, 2007

## School of Education

The University of Queensland  
St Lucia Qld 4072  
Tel: +61 7 3365 6550  
Fax: +61 7 3365 7199  
Email: [education@uq.edu.au](mailto:education@uq.edu.au)  
Web: [www.uq.edu.au/education](http://www.uq.edu.au/education)



Welcome to The University of Queensland School of Education's 2007 Postgraduate Conference: Education Matters: Innovative Social Science Research.

The conference is an opportunity for postgraduate students to present their research and we appreciate the effort of the presenters who have contributed to the interesting program. We also appreciate the willingness of the academic staff members from the School of Education who offered to chair sessions and facilitate the Interactive workshop.

We would like to express our sincere thanks to

- Professor Brian Head, our Keynote Speaker
- Professor Greer Johnston for delivering the Carolyn D. Baker Memorial Lecture
- Associate Professor Merrilyn Goos and Associate Professor Martin Mills for facilitating the interactive workshop
- Faculty of Social and Behavioural Sciences for their support of the conference and the Carolyn D. Baker Memorial Lecture.

Thank you all for contributing to the success of the School of Education's Postgraduate Conference: Education Matters: Innovative Social Science Research

Conference Committee  
Christina Gowlett  
Harry Kanasa  
Rosie Scholl  
Dr Eileen Honan  
Dr Mary McMahon  
Dr Kim Nichols

## Education Matters: Innovative Social Science Research Program

<b>8.30-8.45 Registration: (SBS Building: Room 402)</b>				
<b>8.45-9.00 Welcome and Overview of Proceedings: (Room 402)</b>				
<b>9.00-10.00 Keynote Address: Professor Brian Head</b>				
<b>10.00-10.30 Morning Tea (Room 502)</b>				
<b>10.30 – 11.00 Parallel Sessions</b>				
Room & Chair	SBS 302 <b>Martin Mills</b>	SBS 303 <b>Katie Makar</b>	SBS 504 <b>Jayne Keogh</b>	SBS 506 <b>Robyn Gillies</b>
10.30 – 11.00	<b>Thuy Vu</b> An authentic approach to professional education: Integrating epistemology and ontology	<b>Geoff Hilton</b> Middle years students producing digital videos to aid learning in science	<b>Laura Scholes</b> Implementing a contextual framework for developing engaging literacy programs for boys	<b>Dyah Sunggingwati</b> Teaching questioning in reading comprehension in English as a foreign language (EFL) context in Indonesia
11.05 – 11.35	<b>Richard Niesche &amp; Malcolm Haase</b> Educators as ethical subjects	<b>Harry Kanasa</b> Evaluating the understanding of biotechnology in Queensland Middle school students and their parents	<b>Stewart Riddle</b> Negotiating curriculum with boys in Year 8 English	<b>Hoa Nyugen</b> Peer mentoring: A case study of pre-service EFL teachers during their field experience
11.40 – 12.10	<b>Nasrudin Subhi</b> The different pathways of resilience during conflict when religiosity and sexual orientation collide	<b>Annette Hilton</b> Examining the use of digital technologies to enhance student learning outcomes through writing-to-learn approaches in chemistry	<b>Velepau Tuaru</b> Challenging gender equity in higher education: A Papua New Guinea plan	<b>Ai Hua Chen</b> Learning strategy training in EFL listening comprehension for Taiwanese college students

<b>12.10-1.00 Lunch (Barbecue in courtyard area)</b>				
<b>1.00-2.05 Parallel Sessions</b>				
Room & Chair	SBS 302 <b>Monica Cuskelly</b>	SBS 303 <b>Rob Gilbert</b>	SBS 504 <b>Christa van Kraayenoord</b>	SBS 506 <b>Mary McMahon</b>
1.00 – 1.30	<b>Kim Davies</b> “If I say that I’m what you say I am, is that the end of my story?” An investigation into the personhood of adolescents with Asperger’s Syndrome	<b>Lisa Angelique Yuen Lie Lim</b> Lifelong learning: A preliminary survey of international views, educational policies, and learner outcomes	<b>Michelle Mukherjee</b> Technology teaching tools in science classrooms: what is useful and how can we know?	<b>Thi Hong Thanh Pham</b> Cooperative learning in higher education: A case study at the HoChiMinh University
1.35 - 2.05	<b>Mary Rafter</b> Using stories of experience to explore how science teachers reinvent their classrooms	<b>Christina Gowlett</b> The national curriculum debate in Australia: An historical overview	<b>Sitti Maesuri Patahuddin</b> The internet use for teacher professional development and for teaching mathematics: support & inhibitors	<b>Michael Boyle</b> Being and becoming: which direction do I face?
<b>2.10 – 3.00 Workshop</b> <b>Turning your research presentation into a paper for publication Room: SBS 502</b> <b>Associate Professor Merrilyn Goos and Associate Professor Martin Mills</b>				
<b>3.00 Conference Close</b>				

*School of Education*  
**Postgraduate Research Conference**  
**Education Matters: Innovative Social Science Research**  
**22 September, 2007**

**Abstracts**

**Presenters in Alphabetical Order**

**Michael Boyle      Being and becoming: Which direction do I face?**

This study has the primary purpose of exploring the models of practice of six expert support teachers (learning difficulties) with the promise that some significant insights into the constructive process of these teachers' models of practice will be provided. What promises to be informative is how these teachers have reconciled their traditional special educator responsibilities with the demands launched by systemic and school-based changes. In this qualitative study, a phenomenological approach is adopted to explore the nature of their practice. It is suggested that certain approaches derived from phenomenology may have the subtlety to enable nuanced descriptions of practice. The adoption of a phenomenological approach provides the potential to highlight the essence of each individual's practice while allowing the eliciting of experiential themes that are of significance to the professional community of Support teachers (learning difficulties). Along the way, there is a possibility that the selected teachers will generate insights into how expert special educators formulate their models of practice that are responsive to the multiplicity of issues and considerations that impinge on their professional "radar".

**Ai Hua Chen      Learning strategy training in EFL listening comprehension for Taiwanese college students**

The EFL listening instruction in Taiwan has predominantly focused on the test-oriented and production-based approaches in which listening is simply tested. There needs to be a shift to teach students how to activate their listening processes, in which teaching listening strategy may hold promise. The present study examines the effects of explicit strategy training for EFL listening comprehension in developing students' listening proficiency, the use of listening strategies and the influence of such training on students' learner autonomy in language learning in the Taiwanese college students' context. The subjects were two classes of EFL students. The treatment group received explicit listening strategy training integrating into the listening tasks, whereas the control group practiced the same listening tasks without strategy training. The data were collected via multiple measurements through pre, during and post treatment phrases. Both prior and posterior to the treatment, the listening proficiency test, self-rated of listening proficiency scale, listening strategy questionnaire and listening learning activity questionnaire were conducted to both groups. In addition, during the 16-week treatment phrase, the think-aloud self-reports and reflective journals were employed to investigate students' listening processes. The overall results of the multiple measurements showed the positive effects of strategy training. Discussions of the findings were further provided.

**Kim Davies**      “If I say that I’m what you say I am, is that the end of my story?”

**An investigation into the personhood of adolescents with Asperger’s Syndrome.**

People diagnosed with autism spectrum disorders (ASD’s) including Asperger’s Syndrome (AS) are believed to have a ‘deficient’ theory of mind (ToM) which, diagnosticians assert, limits their capacities for both empathy and self-consciousness. A diagnosis of Asperger’s Syndrome, therefore, places the diagnosed beyond the boundaries of personhood and into the seemingly empty spaces of selflessness. However, for many adolescents diagnosed with Asperger Syndrome, diagnosis is only part of their story. This paper will investigate the self-authored narratives of several young people diagnosed with AS to investigate how they simultaneously adopt and resist clinical definitions of AS in their self-authored narratives, including on-line weblogs (‘blogs’). The paper will conclude with a consideration of the possibilities for emancipation and/or constraint contained within diagnoses like AS/ASD’s and contrast the views of Foucault and Bahktin on human agency in the construction of personal subjectivities/identity.

**Christina Gowlett**      **The national curriculum debate in Australia: An historical overview**

With the onset of a federal election taking place in Australia quite soon, debate about the need to have a national curriculum which all States follow has increased dramatically. This presentation takes an historical overview and discusses how the idea of a national curriculum is far from new. It is argued that corporate and coercive federalism are at the heart of the national curriculum and consistency agenda. Broader debate about the long term consequences of decreasing State control in educational matters is imperative if students are to be individually instead of generically

catered for. A discussion of this issue is important since it potentially has far reaching consequences for the nature of curriculum, pedagogy and assessment practices in Queensland schools.

**Annette Hilton**      **Examining the use of digital technologies to enhance student learning outcomes through writing-to-learn approaches in chemistry**

It has been widely acknowledged that students of chemistry encounter difficulties due to its abstract nature and the need to understand and communicate on macroscopic, molecular, and symbolic levels. Writing-to-learn provides an appropriate theoretical framework within which to examine the use of text production to enhance students’ learning in chemistry using multiple representations, however, there has also been limited research on the effect of learning by producing multimodal text. The proposed study will examine the effect of producing a multimodal text on student learning outcomes in chemistry, focusing on students’ understanding of the chemistry of biomaterials. Using a quasi-experimental research design, the study will employ mixed methods to compare the learning outcomes of Year 11 chemistry students when writing a traditional scientific genre and when creating a multimedia product to report on their learning during laboratory investigations. It is expected that the depth of students’ understanding and their representational competence will be enhanced through the process of creating a multimodal text. The proposed study will contribute to emerging approaches to learning new and abstract concepts in chemistry using multiple representations supported by digital technologies. It will extend existing models of writing-to-learn to include the creation of texts beyond written modes.

**Geoff Hilton                    Middle years students producing digital videos to aid learning in science**

The personal production of digital videos has become common place in our society through the advent of digital video cameras, mobile phones, and editing software. Our 'digital native' (Pransky, 2001) students will expect to incorporate this contemporary media in their learning. This study investigates if and how student video production aids understanding of proportional reasoning in a middle years science class. Classroom based research will be conducted using a mixed method design. Two Year 7 classes will undertake a lesson sequence in science to investigate the proportional functions of a balance beam. Both classes will follow a science writing heuristic (Prain and Keys, 1999); one will use a traditional written task of poster making the other will produce digital videos. It is anticipated that producing a digital video will be at least as effective as more traditional means of acquiring and representing knowledge. It is expected that the process of making a digital video will afford added benefits to learning through such factors as a) aiding working memory, b) facilitating the re-representation of information, c) requiring student collaboration and communication, and d) developing high order thinking skills. The implications of this study may include providing an example of a new strategy which teachers can use to enhance learner outcomes while engaging our digital natives in a contemporary medium.

**Harry Kanasa                    Evaluating the understanding of biotechnology in Queensland middle school students and their parents**

This presentation will outline the theoretical and methodological underpinnings of a mixed-methods investigation evaluating the understanding of, and attitudes towards, biotechnology in Queensland middle school students and how these are transferred

to their parents. The novelty of this approach in modifying parents knowledge and attitudes will be discussed. Previous efforts have focussed solely on either parents or the students and have not explored the transmission of attitudes between the two groups. Upon defining scientific literacy, an analysis will reveal the shortcomings of current approaches in modifying students attitudes to topical scientific issues. The approach adopted for this study emphasises the role of affect in influencing attitudes and hence our acceptance of new technologies. This will be followed by a disucssion of the mechanisms by which students attitudes can be changed.

**Lisa-Angelique Yuen Lie Lim                    Lifelong learning: A preliminary survey of international views, educational policies, and learner outcomes**

Since the 1990s, technological advances and rapid growth through proliferation of industry have resulted in the global development of knowledge-based economies. The repercussion on education is the awareness of the importance of lifelong learning to keep up with these changes, and the formulation of associated educational policies. As with other educational concepts, the idea of lifelong learning has no singular definition, hence the kinds of educational policies which attempt to address the issue take different forms. These in turn will impact learners differently. In this preliminary research I compare how lifelong learning issues are addressed by two countries—Singapore and Australia—and examine the literature to see how learners in these two countries are impacted as a result.

**Michelle Mukherjee                      Technology teaching tools in  
science classrooms: What is  
useful and how can we know?**

Currently, very little is known about the types of technologies (e.g. data loggers, simulation software, fuel cells) regularly used as teaching tools in Queensland science classrooms. This study aims to discover what technologies teachers naturally choose to incorporate into their teaching, and the reasons for their choices. The instrument will be a questionnaire containing mainly closed questions, and this will be sent at least 20 teachers (middle school and above) in Queensland, selected because they are known embracers of innovative technology. The data will be analysed to discover usability issues of the technology tools, both good and bad. The theoretical basis informing the analysis will be that of Nielson (1994) and Norman (1988). Data will be used to identify the types of technology tools that are used regularly in science classrooms, and the reasons for their success. It will also identify which particular technologies have been tried but then rejected, with the usability issues highlighted. This work is intended to be the first phase of an extended study to create a “predictive usability audit” to assist teachers (particularly those in middle school) when making decisions on the adoption of new technologies for use in the science classroom.

**Richard Niesche & Malcolm Haase                      Educators as ethical  
subjects**

There is merit in understanding the ethical work of educators as a dynamic and continuing activity rather than a practice of adherence to a system of moral principles enshrined in a formal policy statement. Through the application of a Foucauldian interpretation of ethics, this paper argues that an ethical educator is one who is constantly ‘caring’ for the ‘ethical self’. This article examines the ethical work of two educators, Andrew, a male primary teacher and

Ruth, a female primary school principal. The data is drawn from two separate research projects. A benefit of this is that it serves our intention to demonstrate the practical usefulness of Foucauldian analyses to a range of contexts and purposes in the field of educational research. We demonstrate the positive potential for Foucault’s theorising/philosophy (whatever it is) to be applied to educational problems in ways that can impact directly upon the practice of educators.

**Hoa Nyugen                      Peer mentoring: A case study of pre-  
service EFL teachers during  
their field experience**

The use of peers as a source for support and learning appears to be underused in pre-service teacher education in general and EFL teacher education in particular. During their practicum experiences, pre-service teachers learn from their school-based mentors. In addition, it may well be useful for pre-service teachers to support and learn from one another through a formal peer mentoring process, providing a valuable additional component to effective pre-service EFL teacher education. This presentation gives an overview of an ongoing study whose major focus is to examine the peer mentoring experiences of pre-service EFL teachers during their school-based practicum which is part of their teacher education program in Vietnam. The research project employs a qualitative case study approach to collect and analyse data in the form of transcripts of audio-recorded peer mentoring meetings, semi-structured interviews, and reflective journals. The findings from this study will be of significance to a variety of educational groups interested in improving pre-service teacher education programs.

**Sitti Maesuri Patahuddin    The internet use for teacher professional development and for teaching mathematics: Support and inhibitors**

Previous studies of teachers' use of the internet for professional development and for teaching have demonstrated two contrasting issues. Some studies have argued that there is a need to provide professional development to help teachers to integrate the Internet into teaching. Others suggest that teachers should take responsibility for upgrading their knowledge using the Internet, and that the main task of governments is to provide the infrastructure, including educational websites. This paper addresses these contrasting issues by reporting on a part of my ethnographic study about the uses of the Internet for teacher professional development and teaching mathematics. Drawing on two case studies of teachers in Queensland, I analyse what factors (personal and contextual) support or inhibit mathematics teachers in making use of the Internet for teacher professional development and for teaching mathematics. My initial analysis has identified at least three factors needing further discussion, namely time, the nature of the Internet, and the context of the teacher. The impact of these factors is illustrated by reference to the two case studies.

**Thi Hong Thanh Pham    Cooperative learning in higher education: A case study at the HoChiMinh University**

This study aims to investigate the effects of cooperative learning on academic achievement of Vietnamese college students. Also, the study aims to explore students' attitudes toward cooperative learning. Two hundred students at the HoChiMinh University will participate in the study. One hundred will be instructed in the modified Student Teams Achievement Divisions (STAD) - an approach to cooperative learning, the remainder will be taught by

traditional techniques. To investigate effects of modified STAD techniques on academic achievement of students, results of both pre-test and post-test from two groups will be compared. To investigate students' attitudes, the author will analyse data collected from observations of students' behaviours in the class and interviews designed to determine students' opinions about STAD techniques. Findings of the study will determine whether cooperative learners perform better than the traditional learners. The cooperative learners are also expected to have positive attitudes toward STAD techniques. The results of this study will provide information on the suitability of cooperative learning as a learning technique in the Vietnamese context.

**Mary Rafter    Using stories of experience to explore how science teachers reinvent their classrooms**

There is an international problem in science education arising from a mismatch between curriculum authorities' demands for student-centred teaching and current teaching practice that is largely didactic. In Queensland this is reflected in the current introduction of new science syllabuses that challenge teachers to implement innovative curriculum focussed on context and student inquiry. This project is using a case study approach to collect experienced teachers' "stories" to record their journeys of pedagogical change. By focussing on chemistry and developing an analytical framework around pedagogical content knowledge in the discipline, the project will build up a resource to help teachers envisage the change process. A pilot case study will be described that is currently being used to develop the analytical framework as a prelude to the main study.



**Stewart Riddle**  
**English**

**Negotiating curriculum with boys in Year 8**

There is an old Chinese proverb that says, tell me and I'll forget; show me and I may remember; involve me and I'll understand. This proverb goes to the heart of the theory of negotiating curriculum with students, as it encapsulates the philosophy of learning as an act of participation. Negotiating curriculum with students, involving them in a democratic environment in the classroom, gives students the opportunity to make decisions about their own learning to improve their outcomes. I became intrigued by the idea of negotiated curriculum as a method for encouraging students to take control of their own learning, as a model of democracy within the classroom, and to allow for transformative pedagogies that are both reflexive and emancipatory. As a practicing teacher, interested in improving my own pedagogy, it seemed that there had been little study done on the effects of negotiated curriculum on learning outcomes for boys in English. As a consequence, I developed an action research to apply theory in the practical setting of my classroom, to examine the effects of negotiating curriculum on the affective attitudes of boys in my Year 8 English class.

**Laura Scholes**  
**developing engaging**

**Implementing a contextual framework for**  
**literacy programs for boys**

This paper aims to illustrate the multiplicity of social influences that impact on boys' reading development in the classroom. It begins by demonstrating how effective literacy pedagogy and practice requires an understanding of the immediate and wider socio-cultural contexts that impact on boys' perceptions of the value of reading and their positioning of reading in the construction of their masculine identities. The discussion then draws on the results of a recent pilot survey designed to develop broad understandings about boys' and girls' attitudes and beliefs concerning a range of activities including reading. Specifically, the survey collected information from students about their; (a) enjoyment of a range of activities including reading – **enjoyment**; (b) self perception of their reading skills and reading frequency – **self perception**; and (c) beliefs about reading and other activities – **beliefs**. Students' reading levels and the socioeconomic background of the school community were also considered. This paper concludes by considering the results of the pilot survey within a contextual framework, adapted from the work of Bronfenbrenner (1979) that considers the multiplicity of contextual influences that impact on the everyday classroom experiences of students in diverse locations. This framework is put forward as a tool for schools and teachers to develop appropriate literacy programs for boys.

**Nasruddin Subhi      The different pathways of resilience during conflict when religiosity and sexual orientation collide**

Most organized religions including Christianity still regard homosexuality as being against their teachings, as sinful and contrary to scripture. Therefore the matter of reconciling sexual orientation with religious and spiritual beliefs can be a very challenging and complicated process for gay men who uphold Christianity as their religion. Subhi (2006) suggested that the construct of 'resilience' could offer a suitable framework for conducting further research on the conflict between religiosity and sexual orientation among gay men. This paper is based on a broader research project exploring the factors and processes of resilience among Christian gay men when faced with conflict between their religiosity or spirituality and sexual orientation. Through qualitative study via in-depth interviews this paper highlights three distinct resilience processes respondents' employed in reconciling the above mentioned conflicts: (1) embracing religiosity and abandoning homosexuality, (2) embracing homosexuality and abandoning religiosity and (3) integrating religiosity and homosexuality together in life. These results indicate that multiple pathways towards resilience exist.

**Dyah Sunggingwati      Teaching questioning in reading comprehension in English as a foreign language (EFL) context in Indonesia**

Teaching students to think critically about what they are reading in English as a foreign language in Indonesia has always been part of effective English teaching. The aim of this study was to investigate teachers' perceptions about their abilities to teach questioning and to develop their skills in teaching questioning to their students. The study involved three English teachers at grade 11. These teachers participated in 3 one-day workshops around teaching questioning strategies based on Bloom's taxonomy. Pre and post- interviews were conducted prior and after the workshops to investigate teachers' perceptions of the workshops. The findings indicated that the participants needed more time to apply different kinds of questions that were unfamiliar for them. However they were confident that they could be effective in teaching questioning skills to their students. The teachers perceived that the training was beneficial for them because they could become more analytical about their own reading and more effectively relate their reading to their own contexts. The results suggested that teachers and students could be taught different levels of questions. However, they need more opportunities for professional development and more support across time to implement questioning strategies effectively in their classrooms. This has implications for systems and schools.

**Velepat Tuaru      Challenging gender equity in higher  
education: A Papua New  
Guinea Plan**

This paper focuses on examining the reasons behind gender inequity in Papua New Guinea (PNG) Higher Education, the implications of this inequity to women's development in PNG, but more importantly, the critical role Higher Education will play in equitable human resource development, towards a sustainable and strategic plan to help alleviate these gender inequities. The first part of the article introduces the PNG's historical context of the status of women, the current inequities and the rationale for the push for gender equity. The second part reviews and analyses the common obstacles faced by females in Higher Education of PNG and highlights general gender enrolment trends in the last eight years (1997-2005). The last part of the article recommends some sustainable strategies to address this inequity in helping to alleviate these gender barriers in the light of the author's research findings and the recent National Higher Education Plan II (2000-2004) for PNG.

**Thuy Vu      An authentic approach to professional  
education: Integrating  
epistemology and ontology**

Recognition that professional education has an ontological aspect is not entirely new, and yet, not much research has been done to take ontology into account in preparing students for their future profession. Recently, the literature has identified an important learning outcome as transformation of the self. Taking this learning outcome seriously poses the need to restructure the curriculum to make space for students developing a sense of being professionals and constructing knowledge, skills and attitudes necessary for them to function effectively in their future profession. One direction in restructuring the curriculum might be the incorporation of authenticity that focuses on students' engagement in on-going practices of the profession. This paper sets out to explore authenticity in professional education contexts and proposes it is appropriate to prepare students for their future profession in terms of epistemology and ontology. The authors argue that epistemology and ontology are inseparable and can be addressed through students' active participation in practices that form part of the profession. The focus of the paper will be identifying a theoretical framework that seeks to integrate epistemology and ontology in the curriculum. Implications for practice will also be drawn.