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ABSTRACTS OF PAPERS - Conference 2010

A

2495 (R)

[Paper](#)

Informal learning through collectives and communities: Women in a rural community

Helen Aberton

This paper is concerned with examining how informal learning in communities can be understood as collective accomplishments of learning as becoming, residing in heterogeneous networks of relationships between the social and material world. Traditionally, learning has been viewed as an individualist cognitive acquisition of knowledge which can be separated from other activities and/or as an embodied socially situated practice which occurs in contained places or contexts of learning (education institutions or communities of practice). Consequently most studies of informal learning have been shaped by these understandings which rely on preconceived constructs of learning, and who the learner is, in a purely social world. At the same time there has been a failure to acknowledge and articulate the intangible, the more-than-representational (Lorimer, 2005), affect, the tacit, the material and the practised. Alternatively, with reference to empirical data from my doctoral study which focuses on women in everyday settings, I show how learning can be viewed differently by adopting an actor-network theory (ANT) - material semiotic "sensitivity". Socio-material practices are taken to be the units of analysis and learning is the effect of the relationships of actants (both human and non-human) in actor-networks. The theoretical concept of performativity, which underpins material semiotics, provides the idea that subjectivity and socio-material context are brought into being together, as a co-production or enactment of people, processes and things. Viewed in this way, learning and identity formation are not static, but emerge in a continuing process of becoming. There are three sections to this paper. It begins with a brief description of informal learning, previous research and changing learning theories, including a brief account of their usefulness for framing research in informal learning. Secondly, with reference to my mother's informal learning in a rural community setting, I use three data vignettes from my doctoral study to demonstrate how an actor-network theory sensitivity to materialities and practices can provide a different way in which to study learning. By focusing on practices it is seen that learning and identity are entangled in everyday mundane activities, and are performed into being as transitory co-productions of people, processes and objects. I conclude with a review of ANT's potential for focusing up the entanglement of human activity with objects in everyday practices, and how the agential role that objects play in this activity provides a different way to view the everyday learning and identity of women in mundane activities. They are entangled in the process of becoming.

2332 (R)

[Paper](#)

Developing Teacher Trainees' Mathematical Competence in an Accelerated Teacher Education Program

Karoline Afamasaga Fatuai

This paper reports data from a longitudinal study conducted to monitor a group of Samoan teacher trainees' developing mathematical competence as they undertook an Accelerated Diploma in Education Program (ADEP). These teacher trainees (TTs) were already working as volunteer teacher assistants in Samoan primary classrooms. This paper focuses only on the impact of the first mathematics content (MC) course TTs undertook over two teaching blocks, on their mathematical performance longitudinally, as repeatedly measured by a diagnostic test based on mathematics content typically taught at primary and early secondary levels. While the first diagnostic test (MDT1) was administered at the end of the first teaching block after receiving approximately half of the MC's required contact hours, the second diagnostic test (MDT2) was administered prior to the second teaching block 12 months later with the third mathematics diagnostic test (MDT3) administered at the completion of the MC course's second teaching block.

Focussing on the data from the three diagnostic tests, Rasch Analyses of TTs' responses (Correct/Incorrect/Blank) enabled the calibration of TTs' ability measures. These were monitored over time and further analysed to determine any changes that may have occurred as a combined result of their first and second teaching blocks, subsequent practical teaching experiences for 12 months and the completed MC course. Variable maps, some item analysis data and example kidmaps are presented in the paper to support longitudinal trends of ability estimates across tests. Implications for teaching mathematics in the classrooms and preparation of competent teachers of primary mathematics are provided.

2025 Â®

[Paper](#)

Examining Relationships between School-Level and Classroom-Level Environments in South Africa

Jill Aldridge

This paper reports research into associations between the school-level and classroom-level environment in science classrooms in South Africa. An instrument, developed to assess students' perceptions of their classroom learning environment as a means of monitoring and guiding changes towards outcomes-based education, was administered to 2638 Grade 8 science students from 50 classes in 50 schools in the Limpopo Province. In addition, the teachers of each of the 50 classes responded to a questionnaire developed to assess factors in the school-level environment (such as the adequacy of resources, parental involvement and collegiality). The data collected using the two questionnaires were analysed to examine whether the environment created at the school level was linked to the likelihood of teachers successfully implementing outcomes-based education at the classroom level.

Key Phrase: Science Education; Outcomes-Based Education; School-Level Environment; Classroom-Level Environment; Learning Environment; South Africa

2538 Â®

[Paper](#)

The Authored Journey in Researching Lived Experience

Jennifer Allen

This paper will explore the research process within the context, pre-text and sub-text of investigating lived experience and acknowledges the pervasive influence of the lifeworld of the author on this process. Building on the Habermasian understanding of lifeworld, as centred on reaching a shared understanding that envelops the communicative practices of everyday life, the paper makes explicit the danger in placing the methodology and methods as themselves beyond question. The challenge is made to understandings where lived experience is regarded as a pure unmediated and authentic knowledgeability and the research account the true and direct speech of the autonomous, self-present individual. Rather, it is suggested that lived experience and the tools of reflection must be constantly problematised recognising their mediation into reality through language, text, discourse, discursive practices and power relations. This problematisation is thus evident in the tension in the personalising of research and the role of reflexivity and a critical consciousness in demystifying implicit, political and ideological contexts. To grapple with the research act as reflexive is to recognise that in our action is our knowing and thus the historical, social, political, and cultural worlds in which our actions and texts are embedded saturate the methodology and methods.

2525 Â®

[Paper](#)

Gaps in Understanding and Implementing Connectedness in Mathematics Teaching by Saudi Student Teachers

Khalid Alsharif, Bill Atweh

This paper reports on a study using the Productive Pedagogies framework with a group of final year student teachers at a teacher education college in Saudi Arabia. The students were introduced to the framework in a unit of study on mathematics education and were observed during the following

semester's field work experience to ascertain their level of understanding of Productive Pedagogies and their ability to implement it in their teaching. In particular, the discussion here concentrates on the Connectedness dimension of the framework. The results showed that while the student teachers were unanimous in their views that the framework was useful in their planning for teaching, some misconceptions remained. Similarly, contextual factors implied that their teaching practice showed limited ability to teach mathematics in a connected way which is a goal of the framework.

B

2096

[Paper](#)

Video games in the literacy classroom

Alex Bacalja

This aim of this paper is to outline the theoretical perspectives that will shape my upcoming research into the critical study of video games in the English classroom. It will begin by highlighting the changing textual world in which young people now interact, focussing in particular on digital and electronic practices such as videogames. Secondly, videogames are explored as a means to build schooling on better principals of learning and teaching. Thirdly, the way in which videogames encourage identity work, both reinforcing and challenging dispositions is discussed, with specific reference to the work of Bourdieu and Foucault. Their work is used to highlight the way that videogames are as implicated in normalising particular constructions of gender. Fourthly, critical pedagogies are introduced as a means to open up classrooms to new and resistant practices which encourage the problematising of knowledge. Finally, the relationship between game-playing and story-building is developed with Bakhtin's ideas on the chronotype used to address the new ways in which young people construct narratives. The paper concludes with an identification of numerous methodological issues associated with my research, all of which typify the challenges of a Doctoral student new to the field of educational research.

2516 A®

[Paper](#)

Creative Community Hub Artist in Residence (CCHAiR) Pilot Program

Margaret Baguley, Miranda Free, Lee Fullarton

The Australia Council for the Arts, Australia's premier funding arts body, received \$5.2 million in the May 2008 Federal Budget to be allocated over four years in order to support a new initiative where professional artists participate as artists in residence (AiR) in schools to improve young people's access to quality arts education programs. The Creative Community Hub Artist in Residence (CCHAiR) 2009 Pilot project undertaken in three state primary schools in Ipswich was one of these AiR's funded by Arts Queensland through the Australia Council for the Arts. This paper seeks to examine the impact of the CCHAiR project administered by the Primary Arts Network Ipswich (PANI), one of two Queensland organisations that were recipients of the Australia Council's initiative for bringing artists into schools.

A modified multiple perception analysis (Ecker & Baker, 1984) incorporating a grounded theory approach (Corbin & Strauss, 1990) was adopted so that both qualitative and quantitative data could be used to provide useful interpretations regarding the impact of the project for all participants. The data gathered throughout the CCHAiR Pilot Project provided important information to improve the experience of artist in residence in schools for future projects of this kind. This paper seeks to provide insights into the implementation of these types of complex projects in schools through presenting the perspectives of the Artists, Teachers and Principals who were interviewed as part of the research evaluation. These perspectives are categorised under common themes which were found across the three groups of interviews undertaken.

The findings revealed similarities between the perspectives of the Teachers and Principals, although there were some distinct differences related to the relationships the Teachers established with the Artists which gave greater insight into their working methods. The Artists revealed that they had learned a lot from working in the school context but at times felt constrained by the very factors that Teachers contend with on a daily basis. The significance of this research is its contribution to promoting the importance of creativity, providing opportunities for the professionalisation of Artists within the education sector and giving students from low socio-economic backgrounds equitable opportunities to find success through personal expression.

2229 A®

[Paper](#)

Examining the Effectiveness of Teacher Professional Development in an Authentic Learning Environment as Part of a Whole-School Initiative for School Improvement.


Lisa Bell, Jill M. Aldridge, Berry J. Fraser

This paper reports a case study of one school which used teacher action research as part of a school-wide initiative to improve the classroom learning environment. At this school, a total of 35 senior secondary teachers were involved in the study over a three-year period. Each of these teachers selected one or two classes and used feedback data, gathered from their students, to make

improvements to the classroom learning environment utilising an action research process. The study involved a mixed-methods approach that included questionnaire responses, document analysis and interviews. A total of 628 student responses from 55 classes were collected for analysis over the three years.

The paper examines first, how an action research activity, at the whole-school level, contributed to school improvement efforts over a three-year period. The paper also reports how one teacher involved in the action research activity used student feedback to guide improvements in her secondary classroom. Finally, the paper examines the use of student feedback reports as one form of data used to monitor the effectiveness of school-wide initiatives.

The findings indicate, firstly, that a whole-school approach to teacher professional development contributes to building a school culture that values continuous learning and which encourages teachers to trial strategies consistent with a whole-school focus on teaching and learning. Secondly, teacher action research using student feedback provides an authentic learning experience that gives teachers the opportunity to monitor, reflect and act to improve what they do in the classroom.

2429 

[Paper](#)

Children's and Adolescents' Concepts of Poverty: Association with Cognitive Development and Social Disadvantage

Ms Emily Berger, Dr Vickii Jenvey, Ms Vicky Coughlan-Ward

Children's and adolescents' concepts of poverty and the factors that influence young people's concepts of poverty were investigated. Ninety-five young people (M=10.26, SD=2.08) answered questions about the nature, causes, justification, and alleviation of poverty. Young people's parents answered questions about their family's economic, social and community circumstances. Younger children were more likely to attribute poverty to societal factors, whilst older children and adolescents were more likely to have mixed concepts of poverty, attributing poverty to both individual and societal factors. Children and adolescents from "poor" families gave mixed reasons, whilst those from "non-poor" families reported structuralist reasons about the fairness of poverty. Findings offer direction for the design and implementation of programmes to alleviate poverty based on a multidimensional measurement of poverty. In addition, results may inform the development of effective school-based social justice curricula to promote balanced discussion of the causes of poverty in Australian schools.

1744 

[Paper](#)

Drawing on imagination: Primary students' ideal learning environments

Derek Bland

Research has established a close relationship between learning environments and learning outcomes (Department of Education and Early Childhood Development, Victoria, 2008; Woolner, Hall, Higgins, McCaughey & Wall, 2007) yet little is known about how students in Australian schools imagine the ways that their learning environments could be improved to enhance their engagement with the processes and content of education and children are rarely consulted on the issue of school design (Rudduck & Flutter, 2004).

Currently, school and classroom designers give attention to operational matters of efficiency and economy, so that architecture for children's education is largely conceived in terms of adult and professional needs (Halpin, 2007). This results in the construction of educational spaces that impose traditional teaching and learning methods, reducing the possibilities of imaginative pedagogical relationships. Education authorities may encourage new, student-centred pedagogical styles, such as collaborative learning, team-teaching and peer tutoring, but the spaces where such innovations are occurring do not always provide the features necessary to implement these styles. Heeding the views of children could result in the creation of spaces where more imaginative pedagogical relationships and student-centred pedagogical styles can be implemented.

In this article, a research project conducted with children in nine Queensland primary schools to investigate their ideas of the ideal "school" is discussed. Overwhelmingly, the students' work emphasised that learning should be fun and that learning environments should be eco-friendly places where their imaginations can be engaged and where they learn from and in touch with reality. The children's imagined schools echo ideas that have been promoted over many decades by progressive educators such as John Dewey (1897, in Provenzo, 2006) ("experiential learning"), AS Neill (in Cassebaum, 2003) (Summerhill school) and Ivan Illich (1970) ("deschooling"), with a vast majority of students suggesting that, wherever possible, learning should take place away from classrooms and in environments that support direct, hands-on learning.

1640 

[Paper](#)

Looking Past Positivity for Indigenous Australian Students: A preliminary investigation of racial discrimination and the illusion of resiliency in academia

Gawaiian Bodkin-Andrews, Nida Denson, Rhonda Craven

At the beginning of the current millennium, a "new" psychological perspective emerged in the guise of positive psychology. Following this movement, a number of authors have emphasised that positive psychology may be a critical factor in diminishing inequities between the educational outcomes of Indigenous and non-Indigenous students (e.g., Craven & Bodkin-Andrews, 2006; Martin, 2006). An underlying assumption of positive psychology is that its constructs may act as agents of resiliency and strength in the face of adversity. Little evidence though exists directly testing this notion of resiliency for Indigenous Australian students, especially when considering more unique cultural stressors (e.g., racism). As a result, this investigation has identified a multitude of positive psychology constructs (e.g., self-confidence, motivation, identity), and sought to determine if they act as agents of resiliency for perceived racial discrimination and its negative impact on school achievement patterns for Indigenous and non-Indigenous Australian students. Utilising a combination of confirmatory factor analyses and latent interaction techniques, the preliminary results suggested that although the positive psychology constructs were associated with higher levels of achievement, they mostly failed to act as agents of resiliency against racism for Indigenous students (thus negating racism's negative impact). As a result, any educational intervention for Indigenous Australian students must also address unique cultural stressors rather than solely focusing on a positive framework.

2445c

[Paper](#)

Rounding out professional development: Professional Learning Community, Instructional Rounds and Quality Teaching

Julie Bowe, Jennifer Gore, Wendy Elsworth

This paper provides the conceptual basis for the intervention used in the Effective Implementation of Pedagogical Reform (EIPR) study, designed to circumvent difficulties that have long been associated with teacher professional learning. The approach brings together three key vehicles that have been lauded for their potential in teacher professional development: professional learning community, instructional rounds, and Quality Teaching. Brought together, we argue that "Quality Teaching Rounds" make effective and substantial teacher professional learning achievable. We argue that the potential of professional learning communities can be enhanced with an Instructional Rounds approach that provides the PLC with clear structure and purpose. Furthermore, when combined with the Quality Teaching "protocol," Rounds have the potential to develop teachers' descriptive and analytical capacities to individually and collectively diagnose their teaching practice in order to enact continuous improvement in pedagogy. By providing both structure and specificity to professional conversations, this coalescence of professional development approaches provides teachers with the time, sustained relationships, conceptual lens and shared language necessary for professional learning.

2454 A®

[Paper](#)

Quality in children's services - 'Yarning' with parents in the Indigenous Child Care Choices (ICCC) study

Jennifer Bowes, Rosalind Kitson, Natalie Burns

The voices of Indigenous families living in the Sydney area are central to this paper, as they take part in yarning sessions about their young aged children. In the yarning sessions they talked about their experiences of early childhood education. The common themes of yarning sessions with 27 city families are presented as first findings of a research project involving close to 100 families across NSW. Child Care Choices of Indigenous Families is a project that has been underway over the last five years, funded by the NSW Department of Community Services. There has been little research on current patterns of child care for young Indigenous children or the attitudes of parents about what is important for them in early childhood programs. Using the culturally appropriate methodology of yarning, this project has yielded rich information about quality early childhood provision from the viewpoint of Aboriginal parents living in the city.

2504 A®

[Paper](#)

Turning resistant students into allies: governing young people through adult learning

Jayne Bye

This paper uses Foucault's concept of governmentality (1991) to explore the ways in which young people are governed through education and training. It is within the governing milieu of neo-liberalism, with its concern for the production of the entrepreneurial self, that young people in education and training have become the targets of government today. Specifically, this paper is concerned with the means by which neo-liberal governmental agendas concerning education and training participation and the shaping of responsibility identities become part of the daily lives of students and teachers. The central question of "what makes government possible?" (Rose 1999, p. 47) is explored by examining the teaching and learning practices at a senior college in a metropolitan area of NSW and asking how they function to keep young people in education and training. Specifically, the appeal to adult learning at this site will be viewed as a governing strategy through which a complex interplay of both enticement and regulation operates to enable a range of students to engage with what the College has to offer. Through the process of translation, adult

learning operates as a powerful shaper of conduct, particularly in the areas of self-regulation, self-direction and responsabilisation, the "authoritative norms" (Miller & Rose, 1990, p. 18) most often associated with adult learning. Essentially, although ill-defined and contested, adult learning represents a large body of expert knowledge that purports to know about the needs of adults in teaching and learning contexts. As such, it exerts the authority of expertise which can serve the purpose of aligning subjects with the goals of government (Rose & Miller, 1992).

C

2433 Å®

[Paper](#)

New metaphors for understanding epistemic practices in higher education online settings

Lyn Campbell, Ted Clark

In investigating the theory of learning called "connectivism" as proposed by George Siemens (2005) there is a clear overlap with parts of actor network theory (ANT). Like ANT, connectivism allows for a more symmetrical account of the interplay between human and non-human material and social relations in learning that encompasses or resides in digital networks. On the other hand one way (among many others) that this new theory of connectivism differs from actor network theory is that it specifically deals with how learning is manifested in computer-based networks. Actor network theory has more general application, and in this paper is used to consider the contribution of the "connectivist" analysis of graduate teacher education engagement with online social networking and social software used for learning. This paper considers the use of blogs and RSS feed aggregators and other social software applications that were used in a recent online education subject offered in a higher education setting. The learning traces and connections made in student postings and in the enhanced referencing and linking that appeared, are analysed with a view to describing emerging epistemic practices, involving ecologies of humans and non-humans, that reside in digital networks. In the course of the discussion, the paper seeks to open up alternative ways to understand the learning practices that occur in networked environments than are offered by social constructivism. Connectivism (Siemens 2005) and material semiotics (actor-network theory) (Latour 2005, and Law 2009) are offered as alternative ways to account for epistemic practices in online education settings. Discussion of metaphors for learning (socio-technical connections and assemblage) in and through digital networks is engaged as part of this consideration.

2145 Å®

[Paper](#)

Are we teaching Digital natives yet - and does it matter??

Nicola Carr

Prensky (2001) argued that the transformations to education promised by the potential of information and communications technologies (ICT) have failed to materialise on a large scale, in part, because too many teachers are believed to be immigrants to the digital world. According to Prensky and others who subscribe to the digital natives argument, the familiarity that early career "digital native" teachers have with ICT will flow through to effective use in their classrooms. However, assumptions around the digital native argument may be flawed and warrant more critical examination. Not all graduate teachers would necessarily see themselves as digital natives. Further, familiarity with ICT in the personal sphere may not automatically translate to effective use of ICT to enhance learning in the classroom (Russell, Bebell, O'Dwyer, & O'Connor, 2003). Growing up in an ICT-enriched world may not be sufficient to ensure effective integration of ICT that "transforms" the learning experience in school classrooms. This paper reports on some of the findings of some small-scale research into the digital literacies of pre-service teacher education students conducted in one School of Education at an Australian university from 2008 - 2009. Pre-service teaching students were surveyed about their proficiency and frequency of use of a range of "out-of-school" and "in-school" ICT applications and devices as well as seeking information about their own experiences of using ICT during their formal education. The study also examined how pre-service teachers had observed the integration of ICT whilst on professional practice placements. The findings suggest that proficiency in using "out-of-school" ICT may lead to greater confidence in applying ICT in the classroom, but that pre-service teachers' own experiences of using and observing ICT in the classroom are also important factors in developing a new generation of teachers who can use ICT in a more transformative mode.

Key Phrase: Teacher Education and ICT

1793 Å®

[Paper](#)

Towards Cultural Metaphors of Thinking: preliminary findings of research into teacher perceptions in South Africa and Malaysia and their implications for teaching and learning

Niranjan Casinader

This paper addresses the preliminary findings of PhD research in the form of a neo-comparative educational study that focuses on how the cultural background of teachers might influence the

conception and delivery of educational programs that originate in one part of the world, but are then implemented and taught in another location. A focus on higher order thinking has been a feature in western education in recent years, with the development of a number of specific educational programs designed to develop these skills within school age children, some of which have been international in scope. In the case of examples such as the Future Problem Solving (FPS) Program, which incorporates concepts of thinking skills that originally derive from the educational culture of 1970s United States of America, efforts to extend its scope to include countries that do not have a western educational tradition have met with varying success. The research investigated the concepts of thinking skills as perceived by teachers within two countries where the FPS Program is being mentored by Future Problem Solving Program (FPSP) Australia - Malaysia and South Africa - with a particular emphasis on a critical analysis of possible cross-cultural influences on how the FPS Program is perceived and implemented in those two countries. A case study approach was employed, utilising semi-structured interviews of educators from different cultures within Malaysia and South Africa, with a control group comprised of FPS educators in Australia and the USA. Using a grounded theory perspective, a model of cultural dispositions of thinking is currently being developed from the patterns emerging from the interview data. The preliminary findings of the research do indicate that the notion of cultural dispositions can be used as a means of understanding the variety of perspectives that educators in a country bring to the teaching of thinking skills.

Key Phrase: Distributed Learning Environment and Multicultural Issues, Educational Philosophy and Theory, Motivation and Learning, Social Justice, Sociocultural and Activity Theory

2062 Â®

[Paper](#)

Measuring mathematics anxiety: Paper 1 - Developing a construct model

Rob Cavanagh, Len Sparrow

The motivation for this paper was a growing need to better understand the manifestation of mathematics anxiety in different situations, at different times and for different persons. Such an understanding is important for those who teach mathematics, study mathematics or use mathematics in everyday life. Implicit in the notion of a better understanding is the systematic application of investigative techniques to both qualify and quantify this phenomenon. The first section presents common accounts of experiencing mathematics anxiety and some of the consequences of these experiences. Then, possible causes or determinants of mathematics anxiety are examined. This is followed by a series of expository discussions commencing with clarification of the construct using a four-function model of construct specification which leads on to consideration of how to define the construct operationally. Next, these qualitative explanations are built upon to examine how Modern Measurement Theory can inform development of a construct model of mathematics anxiety. The final section operationalises theoretical and measurement issues by proposing an eight-domain construct model.

2063 Â®

[Paper](#)

Measuring mathematics anxiety: Measuring mathematics anxiety: Paper 2 - Constructing and validating the measure

Rob Cavanagh, Len Sparrow

The study sought to measure mathematics anxiety and this required testing the assumptions in the Situational model of mathematics anxiety (see Measuring mathematics anxiety: Paper 1 - Developing a construct model). Specifically: 1. Can a linear scale of mathematics anxiety be constructed (data fits the Rasch model)? 2. Are the distributions of scores for different types of mathematics anxiety different? and 3. Is the theorised order of the anxiety indicators consistent with the ordering of the anxiety scores? Two forms of a questionnaire were constructed. One elicited information on anxiety when working in a class group and the other on anxiety when completing a test. Both forms comprised the same items in the same order. Six items were written for attitudinal indicators, nine for cognitive indicators and six for somatic indicators. Each form was given to a sample of 50 Year 5 to 7 primary school students. Students responded to the 21 items on a four point Likert-type response scale. The Rasch Rating Scale model and the computer program RUMM2020 were used for scaling and generating displays and estimations to answer the research questions. After an iterative refinement process, data from 13 items fitted the Rasch Rating Scale model making it possible to plot item difficulty locations and student anxiety scores on the same scale. This showed the students tended to be reluctant in their affirmation of the anxiety indicators. The empirical results were used to refine the construct model. The new model acknowledged that mathematics anxiety can arise in any situation in which mathematical skills and knowledge are required. The indicators of anxiety were proposed as common for all situations and the relative "severity" of the indicators was also assumed to not vary across situations. Three types of indicators were specified - attitudinal, cognitive and somatic. Examples of these indicators were provided for high, moderate and low levels of anxiety. For each level there was a combination of the three different types of indicators.

1943 Â®

[Paper](#)

Engaging reform through using language: Vocational education and training in Queensland

schools

Xiafang Chen, Michael Singh

This paper argues that one of the challenges for education and training leaders is to generate and/or explain and justify new concepts, the changed point of view these concepts convey, and what constitutes an intelligible form of senior secondary schooling. Australia-wide reforms to Senior Learning (Years 10-12) bring with them a loss of existing concepts. This in turn means a loss of the point of view these concepts conveyed and a loss of the ability to decide what constitutes intelligible actions that people can understand in this field. Reforms such as the introduction of vocational education and training in schools (VETiS) can leave educators and trainers with no idea about what is now worthwhile knowledge and skills. Leaders have a significant role to play in this context. Lear (2006) argues that successful leaders facing significant cultural change benefit in part from tracking changes in reality, including the call for new concepts which comes from the declining power of existing ways of naming the world. This paper analyses the language now being used by education and training leaders working in and with schools in Queensland to institutionalise VETiS to become everyday practice. Data from interviews with 58 leaders in Queensland have been analysed with the help of NVivo. New concepts have been identified as providing a new point of view about what makes VETiS intelligible. The frequency of the terms expressing the concepts reflects the changes leaders are now dealing with Senior Learning in Queensland schools.

Key Phrase: senior learning; vocational education and training; educational leadership

2398 

[Paper](#)

What would they know? Professional collective consensus on professional personal knowledge: second language teachers' beliefs on teaching literacy teaching in monolingual contexts

Russell Cross

This paper explores how one form of pedagogical knowledge - teachers' own "personal" understandings of their work - has collective resonance with other practitioners in the same professional space. In so doing, it seeks to identify what aspects of personal knowledge stand the test of professional consensus (Wise, 2005), and thus give credence to a body of expertise that has become increasingly marginalised in the move towards more "scientific", evidence-based paradigms for educational research (Harper & de Jong, 2009). The data emerges from a larger study on how teachers understand what it means to "teach literacy" when working with ESL learners, with the first phase focused on classroom observations and stimulated recall interviews with three individual case studies. The second phase, being presented here, surveyed a larger body of teachers in Victorian high schools to elicit their responses to statements extrapolated from the themes identified within the case study interviews. Beginning with a brief summary of how the three original case study participants understood literacy within their contexts for practice, I then outline the research design for phase two, and an analysis of the survey responses. I conclude with a summary of the implications the findings raise for teaching literacy to English second language learners in contemporary Australian contexts.

2400 

[Paper](#)

The why of the what: ESL teachers' literacy teaching, knowing, and doing

Russell Cross

This presentation builds upon the first phase of a larger project which focuses on teachers' understanding of what it means to "teach English literacy" when learners come to the teaching/learning relationship with a first language other than English. One way to understand teacher knowledge is to focus on how teachers have come to hold the beliefs that they do; in the context of this study, to not simply focus on "what" teachers see as important when "teaching literacy" to ESL learners, but to also understand why they have come to the conclusions that they have. The data presented here focuses on three case studies of ESL teacher practice analysed through the lens of Vygotskian sociocultural and activity theory (Vygotsky, 1978; Engestrom, 1987), and how the teacher-subjects made sense of their students and their literacy needs within that context. Beginning with a brief overview of sociocultural and activity theory as the basis for the methodology and theoretical framework, I then discuss the findings and its implications for understanding literacy teaching with second language learners.

D

2330 

[Paper](#)

PISA - soft governing with hard-core impact?

Anna Dall

This paper presents work in progress on a doctoral project entitled "A cross-national, comparative study of cultural factors underpinning 15 year old students' performance in reading literacy in Australia, Finland, Sweden and Indonesia". The study is based on the Program for International Student Assessment (PISA) surveys, but aims to go beyond the PISA league tables to

provide an in-depth comparison of what literacy means to students and teachers in different national contexts. The focus of this paper is PISA impact and the implications of a universal literacy concept. In a globalised world education has taken on an instrumental dimension. When low performance is detected nationally, schools are typically held accountable. In international comparisons, national education systems are scrutinised and governance occurs through comparison. Of major importance then is the question of who constructs the tests and who sets the standards. Since the initiation of PISA in 2000 the Organisation for Economic Co-operation and Development (OECD) has become a major authority on the quality of educational systems. Students are assessed not against national school curricula but against how well young adults, at age 15 and therefore approaching the end of compulsory schooling, are prepared to meet the challenges of today's knowledge societies (OECD, 2001, p. 14). Thus teachers teach to a national curriculum, but students are assessed, and compared to others on international criteria. Since PISA surveys are taken seriously by participating countries, disappointing results typically lead to calls for action and OECD policy recommendations are implemented at national level. National steering documents still define a range of educational goals such as the students' personal, physical, mental, social, and creative development, but this may as well be regarded as politically correct rhetoric if classroom practices are predominantly concerned with academic performance to better meet testing requirements. In this context, this paper interrogates the possibility of 'global literacy' and the establishment of a broad socio-cultural reading literacy concept against which all students are uniformly measured. It asks whether a 15 year old student in rural Kalimantan has the same literacy needs as a 15 year old in New York City, and argues that what PISA represents is a soft governing with hard-core impact.

Key Phrase: PISA, efficiency, accountability, homogenisation, education, global literacy concept

1737

[Paper](#)

Vygotskian socio-cultural theory and globalization: Implications for educational research

Dang Thi Kim Anh, Simon Marginson

Sociocultural theory of mind was conceived by Soviet psychologist, Lev Semyonovich Vygotsky (1978, 1981a, 1981b) in the early 1920s. The theory emphasizes the central role of social relationships and culturally constructed artifacts in organizing thinking. It attempts to theorise and provide methodological tools for investigating higher cognitive processes by which social, cultural, and historical factors shape human functioning (Daniels, 2001, p. 1). Sociocultural theory is one theory of subjectivity. Arguably its main contribution is to provide a conceptual framework for (re)conceptualizing relations between humans and their sociocultural context. It continues to be widely used in educational research.

2499 Å®

[Paper](#)

Characterising secondary school teacher imperatives as subject pedagogies: A Pedagogy of Support in mathematics and a Pedagogy of Engagement in science

Linda Darby

The ideas of Lee Shulman have played a major role in reconceptualising pedagogical description. In 2005, Shulman described a construct called 'signature pedagogies' in order to describe recognisable and distinctive pedagogies used to prepare future practitioners for their profession. As a broader application of Shulman's ideas, this paper asks, what is the efficacy of describing pedagogies that have become entrenched in secondary school subjects as signature pedagogies? Approached from a cultural perspective these questions are examined by comparing the subject cultures of junior school maths and science as experienced by, and represented in the classrooms of, a small number of teachers from two secondary schools in Victoria, Australia. In this research, subject culture is underpinned by shared basic assumptions that govern the dominance of certain 'subject paradigms' (what should be taught) and 'subject pedagogies' (how this should be taught) (Ball & Lacey, 1980). In this secondary school setting, the term signature pedagogies can be equated to the term subject pedagogies on the basis that both aim to characterise practice across the subject, or discipline, based on what was perceived as central to the task of teaching and learning. The paper draws on classroom observation and teacher interview data to show how six teachers positioned two aspects of their teaching in relation to what they believed was central in shaping their maths and science teaching: the effect of the arrangement of curriculum content on teachers' conceptualisations of the teaching task; and a pedagogical imperative to engage students through activity-based learning experiences. The cultural expectations surrounding these two aspects of teaching appear to have a strong influence on practice, and in some senses teachers' pedagogical responses were clear. These common responses are what I am calling 'subject pedagogies' (see Ball & Lacey, 1980) because there was general agreement about what was central to the teaching task. Two subject pedagogies were seen to represent strong discourses occurring in both subjects: a 'Pedagogy of Support' in maths, and a 'Pedagogy of Engagement' in science. Their established and shared character resembled Shulman's posited 'signature pedagogies' (Shulman, 2005). The data shows that by evaluating cultural practices that teachers have in common, and assumptions underpinning these, there is potential for highlighting imbalances, strengths and weaknesses, and connections and disconnections, associated with prevailing subject pedagogies.

1834 Â®

[Paper](#)

Exploring the role of Police Officers in early childhood services: Creating a meaningful connection with the community.

Katey De Gioia, Fay Hadley

Early childhood settings provide a place for children to develop connections with their local community. Whilst social capital is recognised as an important factor in community life and a sound determinant for this practice; early childhood services in New South Wales have been further prompted to create and maintain these links through policy and curriculum documents which exist at a State and more recently Federal level (Australian Government Department of Education Employment and Workplace Relations for the Council of Australian Governments, 2009; National Childcare Accreditation Council, 2003, 2006; NSW Department of Community Services, 2001) and highlight the importance of community context and authentic experiences for children as a part of these connections. Initially, the role of the New South Wales Police Youth Liaison Officer was defined as working with children and young people under twenty five years of age; particularly in relation to juvenile justice and reducing youth related crime and victimisation (New South Wales Police Service, 2001). However their role has significantly broadened. The authors of this presentation have been commissioned by the New South Wales Police to develop and deliver training to all Youth Liaison Officers around how children learn and effective teaching practices particularly aimed at children in the early years of school. This initiative has developed out of the implementation of the Keeping Me Safe (New South Wales Police Force, 2007) program which must be delivered by a Police Officer in schools. This paper describes a pilot study, exploring Police aspects in their connections with early childhood settings; the research aims to explore the current role Police Officers play in early childhood settings and identifies the role police believe they can play in connecting with early childhood settings. The research has been conducted with Police Youth Liaison Officers across New South Wales, Australia. A phenomenological approach was enacted to gain an insight into their perceptions and lived experiences through their interactions with early childhood settings. An open ended questionnaire was developed to elicit responses in the following areas: 1) years of service and how they came to the role of Police Youth Liaison Officer; 2) prior experiences with young children; 3) expectations from the local early childhood community in terms of visits; 4) types of information provided in presentations to children (expected and developed) and 5) benefits and constraints of visiting early childhood settings. The findings from this study will provide a starting point for discussion and reflection for the early childhood field in relation to effective community connections. It will allow teachers to understand Police perceptions of their role in early childhood settings. It will provide an opportunity to begin to reconceptualise the role of Police in settings and will inform the direction of further research in this area.

2169 Â®

[Paper](#)

The Australian Story: Catalysts and Inhibitors in the Achievement of New Women Professors

Carmel M. Diezmann, Susan J. Grieshaber

Women are substantially under-represented in the professoriate in Australia with a ratio of one female professor to every three male professors. This gender imbalance has been an ongoing concern with various affirmative action programs implemented in universities but to limited effect. Hence, there is a need to investigate the catalysts for and inhibitors to women's ascent to the professoriate. This investigation focussed on women appointed to the professoriate between 2005, when a research quality assessment was first proposed, and 2008. Henceforth, these women are referred to as 'New Women Professors'. The catalysts and inhibitors in these women's careers were investigated through an electronic survey and focus group interviews. The survey was administered to new women professors (n=255) and new men professors (n=240) to enable a comparison of responses. However, only women participated in focus group discussions (n=21). An analysis of the survey and interview data revealed that the most critical catalysts for women's advancement to the professoriate were equal employment opportunities and mentoring. Equal opportunity initiatives provided women with access to traditionally male-dominated forums. Mentoring gave women an insider perspective on the complexity of academia and the politics of the academy. The key inhibitors to women's career advancement were negative discrimination, the culture of the boys' club, the tension between personal and professional life, and isolation. Negative discrimination and the boys' club are problematic because they favour men and marginalise women. The tension between personal and professional life is a particular concern for women who bear children and typically assume the major role in a family for child rearing. Isolation was a concern for both women and men with isolation appearing to increase after ascent to the professoriate. Knowledge of the significant catalysts and inhibitors provides a pragmatic way to orient universities towards redressing the gender balance in the professoriate.

Key Phrase: professors, women, Australian, academic, higher education

1864 Â®


[Paper](#)

Researching Australian School Leadership

Lawrence Drysdale, David Gurr

The Australian education context is characterised by increasing public scrutiny of school

performance and an expectation that all schools should, within contextual boundaries, produce high level student outcomes. Whilst discussion of successful schools and successful school leadership is a relatively recent phenomenon, it is now an important concept for research, policy and practice. This paper reports on our research in developing an Australian model of successful school leadership, and associated research areas of instructional leadership, sustainable leadership, and leadership preparation. It is a paper that describes the research agenda of two Australian educational researchers as they explore successful school leadership over a ten-year period.

2384 

[Paper](#)

The implication of the multiple contexts for teaching and learning on student academic identity within professional education

Nicola Dunham

With the move to mass education the interest of higher education institutions in professional education has taken on a new emphasis in the 20th century (Moodie, 2008). Professional education does not necessarily occur in isolation from wider societal contexts of learning and this is particularly evidenced in field-based Early Childhood Initial Teacher Education programmes which draw simultaneously on the multiple contexts of the training institution and early childhood centres within the community. As field-based Early Childhood Initial Teacher Education programmes draw on the teaching and learning from these multiple contexts being a student has the potential to hold a multiplicity of meaning. This suggests a degree of adaptability on the students' part to adequately function within the multiple learning contexts which have the potential to hold contested meanings between familiar or practice-based ways of knowing and doing things and academic ways (Lea, 1998; Mezirow, 2000). This implies that students are open to the development of aspects of identity within a range of contexts, which has further implications in specific relation to their developing academic identities. Developing an identity as a student of field-based Early Childhood Initial Teacher Education is a constituent part of becoming academically literate (Lea, 2004; Northedge, 2003), and as such has further implications in relation to associated issues of student engagement retention and success. This literature review informs a research project for completion of a PhD in Education, to critically examine the academic identity of students in field-based Early Childhood Initial Teacher Education. The study holds relevance for those involved in the wider preparation of students for tertiary education such as curriculum alignment between the compulsory and post compulsory sector and the teacher registration body. Further stakeholders interested in the outcome of the study potentially include early childhood education service providers, policy makers, users and employees, as well as students themselves.

Key Phrase: Professional education; field-based Early Childhood Initial Teacher Education; academic identity; academic literacies.

E

2498 

[Paper](#)

Computer based dilemma-scenarios, a reflection tool between theory and practice?

Eva Edman Ståhlbrandt

The aim of this paper is to report one part of an ongoing doctoral study, which is designed to provide pre-service teachers in Finland and Sweden with a tool for reflection of practical experiences dealing with complex situations in school. According to learning theory a social cultural framework is used. Regarding the methodology a developmental and a narrative approach is used. The developmental part includes four phases: Collecting authentic school dilemmas; analysis of the practical problem and construction of narratives; development of computer-based simulations and testing of simulations in pre-service teacher education. Semi-structural interviews and a short survey were used. The results show that the use of computer-based dilemma-scenarios in pre-service teacher education provides pre-service teachers with time to: observe the same situation several times, reflect on complex situations in school and discover different perspectives of a situation in order to develop ability to observe, interpret and draw conclusions which contributes understanding of complex situations in school. The background of the research interest is that many novice teachers leave the profession. The so-called "praxis shock" is often the reason. According to previous research the most challenging areas seem to be social relations, leadership and maintaining self-confidence. Previous research has strongly recommended investigating alternative approaches in pre-service teacher education in order to bridge the gap between the theory of pre-service teacher education and practical experiences. Reflection is one method, which is considered as a tool for linking theory in pre-service teacher education and practical experiences in school. One way, which successfully is used in several other professional educations, is computer simulation.

2149 

[Paper](#)

What Teachers (Really) Think About Practitioner Research: Views from NSW and Singapore

Neville Ellis, Ann Armstrong

Many contemporary education systems encourage the notion of the teacher as practitioner-

researcher as part of their professional learning agenda and a means of improving classroom practice. Both the NSW Government Department of Education and Training (DET) and the Singapore Ministry of Education (MOE) have adopted a professional learning agenda which encourages teachers to undertake practitioner research in schools. While there appears to be considerable literature documenting both the process and outcomes of practitioner research, there seems to be no compelling data on teachers' experiences in the affective domain. This paper is part of a broader interpretive case study of 42 participants, including teachers, school leaders, policy makers and academics which investigates the experiences of secondary school teachers in NSW and Singapore as practitioner researchers. The results of this study will give an insight into teachers' perceptions of the strengths, weaknesses, advantages, as well as the disadvantages, of doing research in their own schools and any barriers or difficulties they might face. In this paper however, we acknowledge that a distinction needs to be made between "practitioner research" and "research by practitioners" and explore secondary teachers' thoughts and feelings in response to "top down" implementation agendas on practitioner research and investigate whether their affective experiences vary across different contexts and settings. We argue that teachers are motivated to engage in practitioner research for a myriad of reasons ranging from an intellectual curiosity to the fact it was mandated. While teachers in NSW and Singapore largely shared a similar experience, differences can be attributed mainly to nuances in culture or policy. Key Phrase: teachers' work and lives, teacher professional learning, practitioner research, action research, comparative education

2486 

[Paper](#)

Negotiating the Discomfort of Art Education

Jennifer Elsdon-Clifton

The visual arts has a long tradition of providing a space for disruptive practices such as, challenging what is known, questioning and exploiting cultural codes, and providing alternative social practices. This paper however, is interested in how visual arts students take up these disruptive possibilities within schooling; a space historically characterised by hierarchal power, surveillance and institutionalised structure. I will argue that because of the social and cultural structures that influence school settings, students' art that is characterised as disruptive is often seen as "dangerous", "messy" and "difficult". This paper draws upon interviews with art teachers to explore two narratives that illustrate the potential for students to disrupt traditional notions of sexualities and bodies in the visual arts. Utilising a poststructuralist framework, this paper explores how students, teachers and the general school community negotiate the tension, fear and anxiety that can arise from "disruptive" art created by students and the difficult classroom discussions and issues that can arise in visual arts education.

F

1657 

[Paper](#)

An evaluative study on the significance of the Web in an Australian university context

Si Fan, Thao Lã

The Web has permeated many aspects of social activities in the modern society. It has also created a new paradigm in the world of commerce as well as in the field of education. Most Australian educational institutions have directly or indirectly made use of the Web to facilitate teaching and learning. Web-based technologies have become a powerful tool in supporting students in both traditional coursework as well as online learning. Web-based learning, as a strong manifestation of e-learning, has also become more feasible and acceptable within the tertiary education context. As the main stakeholders in web-based learning are students and lecturers, it is important to understand their views and attitudes toward the Web as a learning resource. This paper reports a recent study which investigated the significance of the Web in an Australian university context. It involved the participation of 115 students and 31 lecturers from the Faculty of Education at this university. Questionnaire and semi-structured interview were used in this study. The results indicate a strong recognition of the role of the Web in teaching and learning. However, there are differences between perceived expectations of web-based teaching by students and lecturers and the ways in which it is conducted and managed. Some recommendations are also made to create a more meaningful and powerful web-based learning environment.

1899 

[Paper](#)

The use of MyLO as a courseware in teaching and learning

Si Fan, Yun Yue, Wei Fan

As a key technological infrastructure for enabling computer-mediated learning, courseware is widely used by universities to provide staff and students with a broad range of resources and to enhance the management of education. However, there are issues and problems in the implementation of courseware to achieve these aims. MyLO (My Learning Online) is the central courseware used at the University of Tasmania to facilitate teaching, learning and management. This paper reports a study on students' and lecturers' views on the use of MyLO as a courseware in this Australian university discourse. The study involved the participation of 502 students and 100 lecturers from

seven different faculties. Data collection methods used were questionnaires and semi-structured interviews. These students were encouraged to give evaluations on the MyLO system adopted across faculties, and reflect on their experiences of using this central courseware platform. The findings of this research suggest that courseware systems like MyLO can enhance personalised learning and collaborative learning, and serve as a supportive tool to learning within the university context. However, there are concerns which need to be taken into account if MyLO could win the hearts and minds of its critical users. The paper provides some insights for enhancing the effectiveness of MyLO both intellectually and socially.

2449 

[Paper](#)

Getting the Balance Right: The Challenge of Balancing Acknowledgement & Correction in Behaviour Management & Support

Barry Fields

Despite continuing concerns about disruptive behaviour in schools and how best to manage it, it is comforting to note that progress is being made on many fronts. In recent years, policy makers and educators have come closer to agreement about what constitutes "best practice" in behaviour management at the system and school level. There is a growing recognition that whole school and whole school community responses to student behaviour are the most efficient and effective ways of both encouraging good behaviour and responding to unacceptable behaviour. One model of whole school behaviour management and support, namely Positive Behaviour Support (PBS) is rapidly becoming the preferred approach in Australian schools. PBS in its various designations, for example, School Wide Positive Behaviour Support (SWPBS) and Positive Behaviour for Learning (PBSL) is now being widely trialed and/or adopted in states such as Queensland and New South Wales. Central to PBS is the shift in emphasis from attending to and correcting problem behaviour, to one of increased attention given to good behaviour, both its recognition and its reward. The celebration of good behaviour is now a feature of the operations of many schools, both PBS and non PBS and this change in focus appears to be unproblematic. Less is known about what is happening at the classroom level. The literature on PBS calls for a high ratio of positive to negative teacher-student interactions, as high as five to one (Sugai, Horner & Todd, 2000). Decades of research on classroom interaction would suggest that such a ratio is unusual and to achieve it would require a significant change in teacher behaviour. This paper explores the challenges teachers working within a PBS environment face as they strive to meet recommended targets for the acknowledgement of positive student behaviour. The particular focus of the paper is on the ratio of positive to negative interactions for students whose behaviour in the classroom is often problematic. More often than not the ratio of positive to negative interactions for these students is the reverse of that for cooperating students and far less than what might be hoped for in a PBS classroom. Behaviour correction is a necessary part of what teachers do in the classroom, but getting the balance between acknowledgement and correction right is important to ensure that attention to good behaviour is what characterises individual student and overall classroom interactions. This paper looks at ways teachers can more readily achieve the balance even when working with difficult and challenging students. The paper addresses what can best be described as "missed opportunities" for acknowledgement, those occasions, more numerous than teachers often believe, when problem behaviour students are on task and well behaved.

1707 

[Paper](#)

Olga Ernst's contribution to the development of Australian identity in Children's Literature

Robyn Floyd

Many early women writers have been neglected, and without serious scholarship we lose the opportunity to gain insight into their behaviour, perspectives and the reflection of culture in their writings. However, all evidence is not created equal and I find myself needing to be a historian as well as a researcher tracing the evolution of children's literature. At the age of sixteen, Olga Ernst, daughter of German emigrants, wrote 'Fairytale from the Land of the Wattle'. It was part of a new development in children's literature leaning towards the creation of an Australian Bush fantasy genre. Ernst, a pupil teacher, had not left her European heritage behind completely but was seeking to link the old fairy world with the new Australian environment in order to amuse and educate. Australian-born descendants of German immigrants saw themselves differently from their British counterparts and were Australian first while still aligning culturally with their German heritage. Over a decade ago my initial research on Ernst was based on interviews with her daughter, analysing the few letters available and having access to an original copy of the book with author comments scribbled in margins. However, the idea that her contribution to children's literature had been overlooked remained at the back of my mind. A decade is a long time in technology and e-research options have dramatically opened doors for me. For the last year my research has centred on primary sources: archival records such as teaching registers; National Library digitisation; microfiche country newspapers; previously undiscovered private papers, use of international libraries and Lutheran Church catalogues and databases, family diaries and interviews.

2111 

[Paper](#)

Teachers' and Parents' Perspectives of

Digital Technology in the Lives of Young Children

Jillian L. Fox, Carmel M. Diezmann, Susan J. Grieshaber

The pervasiveness of technology in the 21st Century has meant that adults and children live in a society where digital devices are integral to their everyday lives and participation in society. How we communicate, learn, work, entertain ourselves, and even shop is influenced by technology. Therefore, before children begin school they are potentially exposed to a range of learning opportunities mediated by digital devices. These devices include microwaves, mobile phones, computers, and console games such as Playstations® and iPods®. In Queensland preparatory classrooms and in the homes of these children, teachers and parents support and scaffold young children's experiences, providing them with access to a range of tools that promote learning and provide entertainment. This paper examines teachers' and parents' perspectives and considers whether they are techno-optimists who advocate for and promote the inclusion of digital technology, or whether they are techno-pessimists, who prefer to exclude digital devices from young children's everyday experiences. An exploratory, single case study design was utilised to gather data from three teachers and ten parents of children in the preparatory year. Teacher data was collected through interviews and email correspondence. Parent data was collected from questionnaires and focus groups. All parents who responded to the research invitation were mothers. The results of data analysis identified a misalignment among adults' perspectives. Teachers were identified as techno-optimists and parents were identified as techno-pessimists with further emergent themes particular to each category being established. This is concerning because both teachers and mothers influence young children's experiences and numeracy knowledge, thus, a shared understanding and a common commitment to supporting young children's use of technology would be beneficial. Further research must investigate fathers' perspectives of digital devices and the beneficial and detrimental roles that a range of digital devices, tools, and entertainment gadgets play in 21st Century children's lives.

G

2517 Â®

[Paper](#)

The Ballarat Clemente Program: A doorway to the treasures of humanities education

Ann Gervasoni, Jeremy Smith, Peter Howard

This paper provides insight into the experience of Clemente education for five Ballarat students who each took part in an audio-taped semi-structured interview. The interviews explored the impact that university study had on the lives of each student, and the responses suggest that the Clemente Program was life-giving for these students. Student insights identified through an analysis of interview transcripts included: the importance of providing a supportive learning environment for people lacking life opportunities and routine; students feeling better and happier with themselves because of personal learning achievements; doing something that was about "me"; the significance of support from the Learning Partners and the program's counsellor; students appreciating their strengths; students rekindling dreams; students seeing a way out of poverty for their family; finding friendship and connection; students appreciating the academic disciplines; improvements in well-being and mental health; pride in achievements; and apprehension of what comes in the future after graduation. These insights highlighted the treasures that students found when engaged in a humanities education based upon community-based socially supported educational structures that enabled them to engage and participate initially.

Key Phrase: Social Exclusion and the Impact of Education for Bringing About Change

2479 Â®

[Paper](#)

Learning Online: Multiliteracies and inquiry-based digital pedagogies for the middle years

Sally Godinho, Paul Molyneux

This paper reports on the theoretical and pedagogical framing for the development of a digital resource designed by staff of the Melbourne Graduate School of Education (MGSE) and the Australian Venom Research Unit (AVRU) at The University of Melbourne. The resource, The Venom Patrol, is an interactive website that is designed to support science-based student learning, extend students' multiliteracy skills, and maximise learning opportunities through the use of inquiry-based and integrated learning pedagogies. The resource's design is underpinned by research highlighting the role of digital pedagogies and electronic resources in the middle years of schooling (see Culican, Emmitt & Oakley, 2001; Luke et al., 2003). Empowered deployment of specific multiliteracy skills (New London Group, 1996; Cope & Kalantzis, 2009) fostered through critical and creative engagement with digital tools is posited as essential for rich learning in contemporary classrooms (Anstey & Bull, 2006; Unsworth, 2002; Zammit & Downes, 2002). In this paper we argue digital tools such as The Venom Patrol that facilitate cross disciplinary connections have the potential to make learning more relevant and cohesive and to cultivate student voice and engagement (Apple & Beane, 2007). With The Venom Patrol website becoming available to schools Australia-wide in 2011, there is an immediate need to trial its implementation in a range of classrooms. Therefore, we conclude with an outline of the qualitative case study research that is currently being undertaken in four school settings to investigate the effectiveness of the resource, its pedagogy and curriculum support materials.

2414 A®

[Paper](#)

We made progress - Progress in dialogue across difference, where the difference remains

Clinton Golding

What might it mean to make progress in dialogue across difference, even though the dialogue never reaches any consensus? This paper develops a number of criteria for judging what I call "collective epistemic progress" in the face of seemingly irreconcilable differences. Although it might seem plausible to judge collective epistemic progress by the strength of the dialogue community, by how long the conversation is continued, or by how close we have moved towards consensus or the truth, I argue that these fail to provide serviceable epistemic criteria. However, I go on to argue that this does not imply that we must reject the possibility of any epistemic progress in dialogue across difference. The paper demonstrates how we might judge progress using the criteria of reaching mutual understanding, furthering the one distributed process of inquiry or deliberation, reaching inquiry milestones, and by finding procedural consensus.

2356b A®

[Paper](#)

Interdisciplinary processes: Constructing a text-book for educating for interdisciplinarity

Clinton Golding

If students are to learn to be interdisciplinary thinkers, then there are a number of challenges that must be resolved. This paper isolates three challenges and illustrates how these might be resolved using excerpts from the interdisciplinary subject Reshaping Environments. The first challenge is to enable students to understand what interdisciplinarity is and why it is essential. The second main challenge is how to enable students to transcend their often simplistic personal epistemic conceptions which impede their ability to understand and integrate multiple perspectives. They tend to remain trapped in thinking there are right answers or it is all a matter of opinion, which prevents them from reaching a reasonable and creative balance of the multiple and conflicting perspectives from multiple disciplines. The third challenge is how to enable readers to think like expert interdisciplinarians, given that such thinking is abstract, complex and effectively invisible for students. The paper isolates principles for meeting these challenges, and then will illustrate how these principles can be made concrete, using excerpts from the chapter on interdisciplinary processes. Students can be stimulated to abandon their simplistic epistemic positions in favour of more sophisticated conceptions that can support interdisciplinary thinking if they are exposed to problems which cannot be resolved while they think in terms of absolute right and wrong or equally valid opinions. By presenting the questions that interdisciplinarians address when they are thinking through complex environmental issues, and by having students address these same questions, they begin to be interdisciplinarian thinkers.

2445a

[Paper](#)

Changing teachers, changing teaching: Exploring the relationships among teachers' perceptions of Quality Teaching Rounds, their teaching, and their identity as teachers

Jennifer Gore, Julie Bowe, Wendy Elsworth

This paper explores the impact of Quality Teaching Rounds, a specific approach to professional learning, on how teachers see themselves as teachers and how they see their teaching. In this analysis, three key themes are drawn from interview and reflective journal data for 28 teachers: teaching publicly, shared language, and collegial relationships. The teachers who participated in Quality Teaching Rounds reported that this approach provided serious opportunities for collegial learning through focused professional dialogue. Moreover, our evidence suggests that teachers participating in this activity have been able to create new professional relationships characterised by respect, support, and critical analysis in well under a year.

2445b

[Paper](#)

Examining the impact of Quality Teaching Rounds on teacher professional learning

Jennifer M Gore, Julie Bowe, Wendy Elsworth

Despite rhetorical and financial investments in professional development, much professional learning activity fails to generate the intended improvements in teaching quality and student learning. In this paper, we examine the impact of Quality Teaching Rounds as a specific form of ongoing professional learning designed to address such weaknesses in professional learning experiences, as inadequate time, the absence of an agreed knowledge base, and cultural norms of privatism. Drawing primarily on questionnaire data, we compare the views of teachers who participated in Quality Teaching Rounds with the views of teachers who were not part of the Rounds process. Statistically significant differences were found for seven of eleven scales including Quality Teaching Support, Quality Teaching Reception, Professional Learning Satisfaction, Quality Teaching

Coherency, Teacher Responsibility, Quality Teaching Importance, and Professional Learning Coherency. These findings indicate the potential of QT Rounds to substantially impact on teacher professional learning.

1723a

[Paper](#)

Redesigning the school environment – Students as clients

Susan Groundwater-Smith, Anna Rubbo

This paper examines an initiative that was one that would fulfil two complementary purposes: to enable 2nd year architecture and design (A & D) students to understand the discipline of landscape architecture; and to enable senior school students to have a voice in developing a critique of their outdoor environment. Through lectures, research, short and longer design exercises, the unit of study for the A & D students started at the macro level with an understanding of the Sydney Basin as both a natural system within a local, national and global context, and then zoomed in to the area of G. The client for the project has been G Boys High School (GBHS). A & D students worked collaboratively with GBHS students to develop landscape and design proposals that would improve their experience of school life- and learning, as well as contributing to social and environmental sustainability. Early weeks primarily focused on providing A & D students with a new way of seeing, making and understanding place, the disciplinary knowledge for them to understand the importance of landscape design as well as the tools of site analysis and master planning. They met their clients (i.e year 11 and 12 students at GBHS) to gather some essential information, and returned again to develop the design project. Within this client centred unit of study the project explored an overall landscape approach to the development of the school, and the design of appropriate new structures integral with the landscape. With some areas of heritage gardens intact, a number of under-developed spaces, as well as a scattered approach to tree planting in recent years, the school provided a palette for the exploration of master planning and landscape design principles. The multi-cultural profile of the school opened up possibilities for cultural interpretations through design. Some potential landscape/architecture design areas were canvassed in preliminary discussions: for example, the development of outside learning areas, greater interaction with the community through weekend markets, or a community sporting facility. As the A & D students worked through their brief, school students were being continually consulted regarding their responses to the ways in which various proposals were evolving. A specific design and technology class was identified as one that would act as a representative group who could more fully amplify various issues as they arose. School students, who had previously been trained as focus group leaders interviewed a range of senior students regarding their responses to the proposals and also to questions that arose. In the presentation we shall not only outline the order of events, and the ways in which these were documented, but also a number of issues that presented themselves as the University and School students grappled with the many concerns that arose regarding, in particular, student safety and dilemmas of control.

H

2485 Å®

[Paper](#)

What's a policy maker doing at a research conference?: Mediating stronger partnerships between research, policy and practice

Elizabeth Hartnell-Young, Elvira Vacirca

This paper, written from the stance of central government policy makers, explores the sometimes tense relationships between researchers, practitioners and education policy makers in a context where evidence-based policy is espoused by governments. It is based on a belief that research in education affects, and is affected by, multiple stakeholders, and that if we are to strengthen the role of education research as a public good, making a difference to society, then we need a model and a practice that can bridge stakeholder interests. The current quest in school education policy making for “what works” is influenced by economic imperatives, increased accountability for schools and teachers, and international evidence that indicates the value of early intervention to improve learning. A new era of Commonwealth-state relations and national reforms in Australia is driving policy makers to seek timely, useful evidence from a range of sources. For researchers, the drive to publish in quality journals is constant and measurable, while influencing policy is less tangible and may take a long time. Practitioners are in an interesting third space: encouraged to innovate, to reflect on data and to research their own practice, they also often lack the time and expertise to assess their efforts to influence policy or publish their findings and ideas. Using Wenger’s (1998) theory of communities of practice as a frame, the Department of Education and Early Childhood Development in Victoria is considered in this paper as a system example. One aim of the paper is to clarify the relationships between those involved in education policy, research and practice (researchers, policy makers, teachers and other staff, sometimes students), in order to add value to research and increase its use in decision-making. By describing and reflecting on some emerging initiatives in Victoria, we suggest how we might achieve shared goals through brokering relationships in a new community of practice.

Key Phrase: policy, education research, communities of practice, partnerships

1957 Å®

[Paper](#)

Conceptualising education policy as practice

Stephen Heimans

This paper makes an argument concerning the usefulness of a conception of policy as practice for theorizing and understanding all aspects of the education policy cycle. In contrast, education policy, while usually being thought of as produced in government, is most often seen to be implemented in practice in education institutions. This paper drawing on contemporary theorising of practice, especially but not exclusively Bourdieu's work on practice and its relationships with habitus, capital and field, argues for a perspective on policy as informed by and as practice and applies it across all elements of the policy cycle, that is agenda setting, text production and implementation. It is argued that a practice perspective captures well the economies of power, and of policy, and its various contexts. A conception of policy as practice across all of the policy cycle provides analytical resources to account for the dynamic nature of the movement of ideas and their resemiotisation, as they are pulled into and used in, and for, education policy.

Key Phrase: practice; policy cycle; Bourdieu; power

2130 Â®

[Paper](#)

The relationships among previous achievement, effort, and performance in high school Mathematics and English

Brian Hemmings

Data obtained from a sample of New South Wales high school students were used to investigate the relationships among standardised Year 7 numeracy and reading tests, a measure of general schoolwork effort taken at Year 10, and Mathematics and English scores in a state-wide, compulsory Year 10 examination. A correlation analysis showed that all the measures were positively and significantly related. Multiple regression analyses demonstrated that the relevant Year 7 test result contributed to a considerable amount of the explained variance in the two Year 10 examination scores. Effort also contributed significantly to the explained variance in the Mathematics score. Implications for researchers, as well as school personnel, are considered.

1890 Â®

[Paper](#)

Calculator Technologies and Females's Mathematics Learning: A Pilot Study

Janelle Hill, Helen Forgasz

The aim of this study was to begin to investigate whether a relationship existed between females's attitudes to calculator technology and their achievement and participation in higher-level mathematics. The sample size was small. However, the results show that most of the participants believed that technologies such as graphics and Computer Algebra System (CAS) calculators are obstacles to learning higher-level mathematics and did not enable a better understanding of mathematical concepts to be gained. The females in this study did not find mathematics useful and relevant in their lives except as a vehicle for university entry. This finding invites further research on a larger scale.

1755 Â®

[Paper](#)

English-Only Classrooms: Ideology versus Reality

Nguyen Thi Boi Hoang, Sun Hee Jang, Yang Yang

In the formalized context of ESL/EFL classrooms, code-switching is undoubtedly the most commonly observed phenomenon, where teachers and students alternate between L1 and English for different reasons. This language alternation practice in class, however, is frowned upon by many educators since the introduction of English-only (EO) policy and the complete abandonment of students's mother tongue in ESL/EFL classrooms. Advocates of EO approach claim that learning is greatly affected by the amount of exposure to the language. In contrast, critics of this approach of teaching English through English only see it as an ideological perspective, rested heavily on premature and unexamined assumptions. They believe that the use of L1 or code-switching option, with its beneficial effects, is more than necessary for ESL/EFL students at all levels. This paper therefore reports a study carried out to reexamine the practice of the insistence on English only in terms of its pedagogical effectiveness, desirability and thus offer some practical implications for the ESL/EFL profession, particularly in the English learning and teaching settings at tertiary level in Viet Nam. The method of the study involved a 4-point scale questionnaire with 23 items. The participants were 42 first year intermediate and upper-intermediate English-major students. The findings indicated that EO policy did not secure thorough understanding of the lessons for the majority (70%) of the students in the sample. In addition, approximately two thirds of the students admitted being unable to express their ideas freely and a similar percentage of the sample had difficulty communicating with others in the target language. Regarding students's attitudes, around 55% of the sampled students were reportedly negative towards EO policy although a considerable majority of 92% acknowledged the value of frequent use of English in enhancing learning. The most noteworthy finding was that roughly 70% endorsed the use of L1 as an auxiliary teaching and learning medium. Pedagogical implications and recommendations are then provided so as to ultimately achieve the authentic learning of English in a near L1-free environment, where full understanding and participation are guaranteed.

2522 Â®

[Paper](#)

Linking Semiotics and Science Education: A Theoretical Framework for "Slowmations" (Student-generated animations)

Garry Hoban, Wendy Nielsen, Anthony McKnight

A "Slowmation" (abbreviated from "Slow Animation") is a narrated animation that preservice teachers design and make as a new way to learn about a science concept. It is a simplified form of stop-motion animation that is played at 2 frames/second providing a slow moving image enabling preservice teachers to explain a science concept. Preservice teachers learn how to make one for the first time in a 2-3 hour workshop and then they make their own animation on an allocated topic as an assignment in a science methods course. The theoretical framework for learning from making a slowmation is based upon Peirce's Semiotic Triad (Peirce, 1931), highlighting the interplay between the referent, representation and meaning making when individuals interpret or make a sign. When creating a slowmation, preservice teachers design and make a sequence of five representations, each being a semiotic system, that progressively link in a semiotic chain to produce the animation: (i) Representation 1 "Preparation; (ii) Representation 2 "Storyboard; (iii) Representation 3 "Models; (iv) Representation 4 "Photographs; and (v) Representation 5 "Animation. A case study is provided to show a preservice teacher's perceptions of learning science through creating narrated animation. Slowmation is a new way for preservice teachers to learn science content by making a sequence of five representations as a semiotic chain culminating in the animation as a multimodal representation, however, further research is needed to better understand how each representation influences this learning.

1897

[Paper](#)

Dwelling in complexity: relational-ecological understandings of context, space, place and the body in professional practice

Nick Hopwood

This paper explores the complexities of understanding and researching professional learning and practice. Within a broad practice-theoretical framing, the paper brings into (not always comfortable) contact theorisation of context, space/place, and the body. The aim is not to develop a clean framework and straightforwardly linked set of questions and methods, but rather to embrace the difficulties and aporias such a project presents. The following sections outline starting points and deeper commitments for the argument to be developed fully in the paper. Practice has often been overlooked theoretically, leading to a 'thin' adoption of the term with often little meaning (Green 2009; Kemmis 2009). However a body of work is emerging which asserts the primacy of practice as the focus of enquiry. Schatzki (2001a) refers to a practice turn in contemporary theorising, with others framing such work as poststructural in nature, adopting a relational perspective, and challenging dominant dualisms such as theory/practice, mind/body (eg. Green 2009; Reckwitz 2002; Saltmarsh 2009). Rich reconceptualisations of practice are crucial in developing distinctive and nuanced accounts of professional learning and education. Context Saltmarsh (2009) suggests that the place of context in research is 'ambiguous, contested and dynamic, and reflects a diverse range of understandings about the co-implications of context and practice' (p. 157). Schatzki (2002) challenges notions of context as container for social phenomena, arguing instead for a complex entanglement that is part of social practices. A relational view of context suggests it is co-implicated with practices, as each (re)constitutes the other. Notions of thrownness and projection are suggestive of a means to situate an individual practitioner within such complexity (Schatzki 2006), highlighting one's already being in the world, one's situated response to contexts. Shotton (2005) writes of chiasmic relations between bodies and their material surrounds, while metaphors of ecological relations also open up complex readings of context in which lines distinguishing features from each other are blurred and dependent on the contingencies of particular situations (Sanders 1999). A challenge thus presents itself regarding how to frame and research context (in such relational terms) within enquiry into professional learning and practice. Relationships between practice and space have increasingly come under scrutiny within a spatial turn that has enjoyed only fleeting contacts with the aforementioned practice turn. Place and space may be seen as integral to practice rather than separate entities in which practice occurs: 'practice is always embodied (and situated)' it is what people do, in a particular place and time' (Kemmis 2009, p. 23). Kemmis' wording suggests an intimacy between practice, place/space and the body. Casey's (2001) phenomenology of place starts with/from the body, arguing that the body constitutes a central mediating phenomenon between self and place. Schatzki (2001b, 2006) highlights the need to weave corporeality into notions of practice, agreeing that the body lies at the heart of complex relations between self, place, practice and context (see also Gallagher 2003). While many describe practice as 'embodied' or point to bodily aspects of it, distinctions between embodiment and the body, and the place of the body in learning and practice remain in need of elaboration and clarification. This paper does not aim to develop a clean conceptual model of practice or practice learning. Rather, recognising that practices are characteristically fuzzy, indeterminate and dynamic (Green 2009; Schatzki 2002), it anticipates parallel qualities in any conceptual account or empirical enquiry (Fish 2009). Following Wittgenstein's call to go 'back to the rough ground', I argue that we need to inhabit and pause in such difficult theoretical spaces. The full paper will further develop these ideas and explore the opportunities and tensions they present with respect to framing and engaging in empirical study of

learning and practice in health professions. As such the paper offers an account of complex theorising as part of the process of developing informed research questions and approaches. This does away with rational models of research design and methodology, and presents research as a messy, unpredictable form of practice in itself.

2000 

[Paper](#)

A university-TAFE partnership: Mentoring potential teacher aides

Peter Hudson, Sue Hudson, Sandra Mayne

Universities promote partnerships as an investment of social capital that may benefit communities. Mentoring of university students in schools has become key to induction of education workplace practices. One such arrangement is the mentoring of students from TAFE who endeavour to become teacher aides. However, there is no theoretical model for mentoring teacher aides and, similar to mentoring preservice teachers, such practices vary in quality and quantity. What are mentors' perceptions of mentoring potential teacher aides within school settings? This mixed-method research involves a survey with extended responses from 17 mentors. The aim of this small-scale study was to explore practices and strategies for mentoring potential teacher aides (PTAs). Results indicated that PTAs require induction about the school culture and infrastructure, which includes ethics, values, operational plans, awareness of facilities and a range of other inductions that would aid the PTAs' work practices. Findings also revealed that many of the mentoring practices employed for preservice teachers may be used for mentoring PTAs in school settings. The survey employed in this study may assist organisations to develop protocols of practice for workplace mentors. PTAs require mentors who are versed in effective mentoring practices that can more readily guide them towards success.

Key Phrase: university collaboration, TAFE, teacher aide, mentoring, preservice teachers.

J

1752 

[Paper](#)

Contemporary Co-teaching: The perception of ESL teachers in Australia

Sun Hee Jang, Yang Yang, Boi Hoang Nguyen

With an ever-increasing trend towards diverse collaborative teaching models, there is a growing body of research on why and to what extent these teaching approaches positively affect students' attainments as well as teaching quality in different educational contexts. In Australia, there have been a number of studies on two common collaborative teaching schemes: team teaching and co-teaching. Nevertheless, very few published studies have explored the different perceptions of English as a Second Language (ESL) teachers in Australia, specifically their views of co-teaching in English instruction to students from migrant or refugee backgrounds. The purpose of this paper is to report a case study conducted to document various teachers' perceptions of co-teaching in a TAFE institution in Australia, where ESL courses are provided to Australian migrants and refugees. This study focused more on qualitative data in nature, which were collected through semi-structured interviews. To analyse the contextual data, thematic analysis was conducted. Through the collected data, the study identified different ideas or components which fitted into specific themes. The data also suggested that there are a number of factors affecting co-teaching in this context. The findings of this paper indicated that a careful consideration of the compatibility or the partnership between co-teachers can be of importance for enhancing ESL students' achievement through well-designed co-teaching models. It is believed that this innovative pedagogical strategy could help these normally poorer English speakers to access the general education curriculum as well as to integrate into the wider social community.

Key Phrase: Co-Teaching, Team Teaching, Collaboration, ESL, Australian Refugees and Migrants, Perception of Co-Teaching.

K

1720

[Paper](#)

Future strategies for research into the use of digital technology in schools

Steve Kennewell

As we enter a period where governments are under pressure to reduce public expenditure, it is appropriate to consider the future strategy for educational research into the effects of technology. In order to do this, the paper first identifies a number of assumptions behind much existing research which are examined and challenges these where appropriate. On the basis of this critique, the paper next argues that future research should be directed towards what is learned and how it is learned, with technology being one means or aid to learning, rather than focusing on some assumed 'effect' of technology. The paper discusses ways of characterising settings designed for learning and their organisation. It evaluates the contributions of tools drawn from cultural-historical activity theory and communities of practice in analysing settings designed for learning, and

the nature of pedagogy as orchestration of the features of learning activity settings is characterised in terms of goals, actions and the affordances and constraints which influence those actions. Evidence from recent research projects conducted by members of the Interactive Pedagogy Research Group is used to illustrate how insight concerning the effects of technology can be gained from a detailed focus on the whole setting for learning activity and an analysis of pedagogy as the orchestration of features of the setting. Finally, the paper draws conclusions concerning factors which influence whether and how innovation in the use of technology is sustained when there is no longer a high level of investment in equipment and support.

2487 

[Paper](#)

Measuring engagement in classroom learning among Western Australian students using Rasch Analysis

Penelope Kennish, Rob Cavanagh

This paper is part of a larger research study into measuring classroom engagement among secondary school students in Western Australia. This paper reports on one aspect of the study; that of instrument development. Cavanagh, Kennish and Sturgess (2008) reviewed the prominent literature and proposed that the understanding of student engagement in classroom learning could be advanced by using Flow Theory (Csikszentmihalyi, 1990). The model proposes 11 facets of engagement: five relating to student capabilities for learning; and six relating to expectations of student learning for understanding. These were researched empirically to determine if it was possible to quantify student engagement using Rasch Analysis (Cavanagh and Kennish, 2009). The refinement of the instrument from being interviewer administered to a self-report survey is described in this paper. A sample of 553 students from two Perth metropolitan senior high schools Years 8 to 10 completed the survey and the resultant data was analysed using RUMM2020. The relationship between learning capabilities and expectations of learning was examined by plotting the scores of each student for learning capabilities and expectations of learning. The distribution of scores shows a direct relation between the two constructs consistent with the hypothesised model of engagement. A measurement scale of the phenomenon of engagement in classroom learning has been developed and can be used by pedagogic practitioners. In cases where resources are being channelled into increasing student engagement or re-engaging disengaged students, the instrument will be of benefit in measuring the impact of efforts made.

2518 

[Paper](#)

Another Brick in the Wall: A renewal of the built environment in an educational context

Mr Martin Kerby, Dr Margaret Baguley

The aim of this research project is to examine the complex pressures on a school leadership team as it seeks to renew the built environment against the background of government funding, heritage concerns, architectural pressures and school and wider community expectations. These often competing demands are further complicated by the need for the school to maintain the full operation of its core business of teaching and learning in the midst of three different building programs within the campus.

This research project will utilise a qualitative narrative study approach to develop an understanding of the phenomenon under discussion. The research will include interviews with key personnel involved in the leadership team at St Joseph's Nudgee College, Brisbane, Queensland. A narrative account utilising the elements of incident, characterisation, time, location and dialogue will be presented to examine the complexities involved in undertaking a project of this nature.

The significance of this research project is its focus on a leadership team facilitating a major building program in order to provide mutually beneficial outcomes for the school and wider community. The transformation of traditional classrooms into collaborative and open learning and teaching spaces emphasises an educational philosophy of learning which inevitably has a profound impact on the entire school community. This information will be of particular interest to educational leaders who are about to embark on school refurbishment initiatives whilst seeking to retain the rich history of their institution and simultaneously provide relevant teaching and learning spaces.

1837

[Paper](#)

Igniting and Sustaining Mathematical Proficiency: a Poststructuralist Analysis of the Pitfalls and Essentials of Classroom Practice

Mary Klein

Nationally we face a serious problem in that over the last twenty years the quality of Australian students' mathematical knowledge and abilities has deteriorated to a dangerous level (Brown, 2009, p. 3). Too few students want to study further mathematics (Willoughby, 2000) or pursue careers where high levels of mathematical proficiency are needed. In this paper I make use of the poststructuralist notion that "proficiency" is a state of being daily constituted in classroom practice to (a) at a theoretical level, rethink how it might be ignited and sustained, (b) analyse contemporary interactional strategies that commonly interrupt proficiency in participation and (c) nominate three (3) key indicators of instructional practice necessary for students to achieve and

maintain a state of being "proficient" as defined in the Australian curriculum: mathematics (ACARA, 2010). An alternative, poststructuralist reading of how the learning process impacts engagement and ultimately proficiency may interrupt taken-for-granted humanist assumptions that currently inform the teaching and learning of mathematics.

2474 Â®

[Paper](#)

Preparing Preservice Teachers To Step Up To the Intentions of the Australian Curriculum, Mathematics: Revitalising the Mathematics and Demonstrations of Proficiency

Mary Klein, Kerry Smith

Key to the Australian curriculum in mathematics is the emphasis placed on the development of proficiency, a level of competence and expertise in the creative use, investigation and communication of mathematical ideas (ACARA, 2010). This implies that at the classroom level teachers and students will be engaged in novel practices, new ways of doing and using mathematics that reach beyond the procedural to value each and every student as an active, investigative participant in the construction of knowledge. Questions arise, though, as to how novice teachers can be encouraged to implement and sustain these flexible interactional practices, given their commonly expressed dislike of mathematics, their lack of content knowledge and of the reasoning processes that nourish its development. Sensitive to our students' need to be able to recognise themselves as teachers of mathematics, and our need to be able to recognise them as appropriately proficient for teaching, we have introduced a structured program that aims to build an appreciation of (a) mathematics, as a logical, integrated discipline with particular attention given to its inherent pattern and order, and (b) new ways of using and doing mathematics, specifically related to the reasoning processes of representation, justification and generalisation (Ball, 2003). While data presented in this paper demonstrate a measure of success in an on-line numeracy subject (ED1491), further research is needed to clarify the extent to which these particular experiences of a revitalised mathematics in teacher education can have lasting effects on classroom practice.

2532 Â®

[Paper](#)

Culture-Fair Assessment: Challenging Indigenous Students Through Effortful Mathematics Teaching

Val Klenowski, Steve Tobias, Bob Funnell, Fiona Vance, Colleen Kaesehagen

This paper is based on research that aims to develop a teaching model to build teachers' assessment and pedagogical capacity to raise the achievement of Aboriginal and Torres Strait Islander students in mathematics. The project has been funded by the Australian Research Council Linkage program and is being conducted in seven Catholic and Independent primary schools in regional Australia. Our Industry Partners are Catholic Education and the Association of Independent Schools, Queensland. Years 4 and 6 teachers have been provided with analyses of NAPLAN numeracy data to be used to inform teaching decisions and the development of rich assessment tasks. The aim is to build teachers' assessment capacity so that they can use summative assessment data formatively to scaffold and extend Indigenous students' mathematical understandings. Each school principal and the Years 4 and 6 teachers involved in the project have received detailed summaries of each of their Indigenous students' responses to the NAPLAN test. An analysis of each question has also been provided so that teachers can check each student's answers to the different mathematical strands. The descriptive analysis of each answer aims to support a more comprehensive understanding of the underlying concept and to suggest the next steps to be taken to support the student's development in the identified mathematical concept in need of improvement. Follow-up interviews have been conducted with the Years 4 and 6 teachers concerning their pedagogical approach with Indigenous students, students' reactions to challenging tasks and the support available for Indigenous students and for the teachers, themselves, in their schools. Semi-structured interviews have also been carried out with the Years 4 and 6 Indigenous students, with principals and with Indigenous Education Workers (e.g. teacher aides and community liaison staff) to gain a broad view of cultural influences and values that effect the dispositions of Indigenous students' learning, particularly in relation to mathematics. The background information from these interviews was then analysed further to augment data from the individual NAPLAN test results. The overall aim has been to identify homologies ("resemblances with a difference") between classroom interaction, school organisation designed for Indigenous students, their education and culture, and relationships with home and family in each regional setting. Attention to the variation that emerges in the results across a continuum of Indigenous learning is further analysed to explore the factors for culture-fair assessment. The research draws on research literature on present challenges in Indigenous education (Beresford and Partington, 2003) and on improving educational outcomes for Islander and Pacifica students (Kearney, 2008) to consider connections with Indigenous epistemologies. Sociocultural theories of assessment and learning (Rogoff, 1995, 2001, 2003; Wertsch, 1991, 1995; Guti rrez, 2009), authentic assessment (Wiggins, 1989, 1990, 1993; Stiggins, 1987, 2007) and assessment for learning (ARG, 1999; Stobart, 2008) underpin the theoretical and methodological approaches adopted. The research to date has found that culture-fair assessment requires an understanding of issues to do with the literacy demands and the validity and fairness of the assessment practices. Sociocultural theories of learning and assessment have informed the analysis thus far. In addition, expectancy value theory (Fishbein),

rich assessment tasks (Clark, Sullivan; Luke, 2005) along with student centred inquiry based approaches to teaching and learning mathematics have been incorporated into the theoretical framework of this study. Combined, these theories provide a platform for analysis, understanding and explaining productive teaching and assessment practices that lead to improved learning opportunities for Indigenous students. The findings of this study have implications for pedagogy and for practice. Culture-fair assessment encourages teachers to engage students in appropriate levels of challenge through relevant and meaningful contexts for identifying conceptual and procedural understanding in light of the student's disposition and desire to learn mathematics. Underpinning the pedagogical approach is a broader view of how mathematics is taught in schools, one that encompasses students' understandings, dispositions, self-beliefs and acknowledges their personal view of the value of learning mathematics. Rich tasks (Luke, 2005) and open-ended questioning (Sullivan and Lilburn, 2007) provide a basis for authentic problem solving to enhance personal and intrinsic motivation, perseverance and resilience. Expectancy value theory (Fischbein,) suggests that students' attitudes to learning is directly affected by the value they place on learning and the success they believe they might have in reaching a satisfactory goal. Subsequently, this research study has focused on improving learning through strategic and effortful teaching that encompasses a diagnostic and holistic view of the student's background and demeanour for developing mathematical thinking skills. The paper will report on these findings related to culture fair assessment, the Indigenous mathematics program, the theoretical basis for the study along with the preliminary results as they pertain to Indigenous students' mathematical learning using effortful teaching.

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2367 Â®

[Paper](#)

The development of motor-reduced visual perceptual skill is always prior to that of visual-motor integration skill!

Mun yee Lai

In the assessment of general visual-perceptual abilities, there are two schools of thought. The first maintains that perceptual and motor abilities are interdependent and perceptual abilities are reflected in motor responses (Leonard, Foxcroft & Kroukamp, 1988). Another body of research argues that visual perception and motor development are autonomous systems in visual-perceptual abilities. (Bortner & Birch, 1960; Bortner & Birch, 1962; Rosenblith, 1965; Colarusso & Hammill, 1995). The study reported here investigated the possible relationship between motor-reduced visual perceptual abilities and visual-motor integration abilities in Chinese learning children and English learning children by employing the Developmental Test of Visual Perception, 2nd Edition (Hammill, Pearson & Voress, 1993), in which both abilities could be measured in a single test. A total of 41 mainstream native Chinese learning and 35 mainstream native English learning Australian children of age 5 participated in this study. The findings indicated that the Chinese learning children scored much higher marks in the visual-motor integration skills than the motor-reduced visual perceptual skills while English learning children performed comparably in both skills. The results of the Chinese learning children disproved a well established knowledge of the prior development of motor-reduced visual perceptual skills to that of visual-motor integration skills. The paper suggests that these findings can to some extent be accounted for by the psychogeometric theory of Chinese character-writing.

2436 Â®

[Paper](#)

Significance of a multimedia resource in the professional learning of preservice teachers

Josephine Lang

This phenomenological inquiry seeks to understand the complexity of teacher professional learning through analysis of the use of a multimedia curriculum resource in initial teacher education programs. The study follows seven preservice teachers at three points over the course of an eighteen month period to gain understandings of how they are making meaning of their becoming teacher journeys. For the purposes of this paper only one aspect of the doctoral study is reported on due to the limitations of space. Consequently, this paper focuses on the findings of the significance of using a multimedia curriculum resource, known as QuILT, for professional learning. The qualitative study used questionnaires that included open-ended questions and semi-structured interviews with each of the seven preservice teachers at three points over an eighteen month period; as well as artefacts such as their QuILT related assessment. The paper reports on the findings that the multimedia resource and its pedagogical use provide a rich professional learning environment for preservice teachers.

Key Phrase: professional teacher learning, motivation, multimedia resource, multimedia pedagogy, student engagement

2481

[Paper](#)

A Structural Model of Motivational Beliefs in Effort and Ability, Goals Orientation and Learning

Strategies of Hong Kong Teacher Education Students

Man-Tak Leung

It had been argued and debated quite for a long time by local researchers whether motivational beliefs in effort and ability would have significant effects on students' achievement goals and learning behaviors. In fact, a key factor related to cultural differences in the service and support of education would be the relative emphasis that culture would value/place on innate ability and effort. According to Weiner (1986), students who attributed success/failure to effort were more likely to incline to working harder than a student who attributed success/failure to innate ability. Popular and favorite Chinese saying: "Genius comes from hard work and knowledge depends on accumulation" (Tong, Zhao, & Yang, 1985) as well as the Chinese proverb: "The slow bird needs to start out early" both clearly explained that effort and innate ability would induce and lead to different achievement outcomes. Hau & Salili (1990) studied the causal attributions and achievement goals of primary school students in Hong Kong. Twelve specific causes including effort and ability were provided, and the students were required to rate the importance of each of them with respect to their performance in an actual examination. Results indicated that as compared to the junior students, the senior form students were learning oriented and they attributed their importance more to internal causes such as effort. In another study, Salili & Mak (1988) found that "effort" was perceived by Hong Kong students as the most important antecedents for academic achievement, while "being wealthy" and "career success" the lesser importance. Although these studies had investigated the attribution causes in academic achievements for Hong Kong students, they had not attempted to examine the structural relationships among motivational beliefs, achievement goals and learning strategies which were prevalent factors leading to desirable achievement outcomes. The present study attempted to establish a structural model consisting of the constructs of motivational beliefs (effort vs. ability), achievement goal orientations (learning goal vs. performance goal) and learning strategies (rehearsal, elaboration, organization, critical thinking). It was hypothesized that there were significant relationships among motivational beliefs in effort and ability, achievement goals and learning strategies at the $p = .05$ level. Belief in ability would have positive and significant effect on performance goal. Belief in effort would exert positive and significant effect on learning goal. Around 200 Hong Kong tertiary institute students were invited to participate in the present research. There were three adapted questionnaires on beliefs in effort and ability, achievement goals and learning strategies to be used and were administered to the participants. Findings showed that belief in effort had positive and significant effect on learning goal, whereas belief in ability had positive and significant effect on performance goal. Besides, learning goal orientation had positive and significant effects on rehearsal, elaboration, organization, critical thinking, whereas performance goal orientation had non-significant effects on these learning strategies, except the rehearsal strategy. More importantly, a structural model (utilizing path analysis by LISREL) comprising the complex interrelationships among beliefs in effort and ability, achievement goals and learning strategies could be established and substantiated by empirical data. The findings of the present research could contribute to help widen the knowledge into the characteristics of student teachers' motivation and learning processes. It also deepened the insight into the inter-correlation and complexities of the variables on learning outcomes. Teacher educators would become more aware of these influential factors affecting the quality of learning outcomes and they would develop improved pedagogical strategies and implement necessary curricular programs to cater for the needs of the student teachers. Hence, the institutional resources and facilities could be adjusted/modified aiming at providing a better environment conducive to more desirable learning outcomes. Implications for further researches with consideration of socio-cultural framework/explanation would be discussed as well.

1863

[Paper](#)

The Effects of Chinese Values (Confucian Work Dynamism and Human-heartedness) on Students' Achievement Goals and Learning Strategies

Man-tak LEUNG

There have been a number of recent studies that examined Chinese achievement goal orientations, learning strategies and their relations with other affective and cultural variables. It is argued and speculated by a number of local researchers that the Chinese values may have significant implication on Chinese achievement goal orientations and subsequently on their learning behaviors. To date, very few researchers have investigated the complex causal relations among these three constructs. In an effort to understand more about the implication of Chinese cultural values (in particular, Confucian Work Dynamism and Human-heartedness) on Chinese achievement goal orientations and learning strategies, the present study attempts to examine the relationship between the constructs of Confucian Work Dynamism, Human-heartedness with achievement goals (learning goal and performance goal) and learning strategies. More than 200 teacher education students in one tertiary institute in Hong Kong was invited to participate in the present research. Three adapted instruments on Chinese values, achievement goals and learning strategies respectively were administered to the participants. Through application of SEM (structural equation modeling), collected data were analyzed by using LISREL. Interrelationships among the latent variables/constructs were fully examined. A confirmatory model linking Chinese values, achievement goals and learning strategies was established. Findings from the present study holding implications for further researches about achievement goals, learning behaviors and cultural variables will be discussed.

2514 Å®

[Paper](#)

Levels of positive risk-taking and peer context in preschoolers' play

Helen Little, Shirley Wyver, Frances Gibson

The aim of this study was to identify whether preschool aged children's positive risk-taking in play is influenced by peer context. Research on children's risk-taking has traditionally had a focus on the negative aspects of risk, especially behaviours that lead to significant and easily preventable unintentional injury. More recently, researchers have started to consider the positive aspects of risk-taking in young children's play, particularly as such behaviours support children's physical development. Recognition of the importance of risk-taking in play is represented in recent policy and curriculum documents (e.g. QIAS and EYLF) with early childhood teachers encouraged to promote such behaviours. Despite this, little is known about the social and physical contexts that support positive risk-taking and how these might interact with individual characteristics of children. Such information is important, especially as attempts to increase positive risk-taking in play can be counteracted by "surplus safety" (i.e. excessive attempts to ensure children's environments are safe and injury free). Although there is promotion of positive risk-taking in play in the aforementioned documents, regulatory requirements, as written and implemented, generally have a bias towards risk minimisation or removal. The present study was conducted at a Sydney Child Care Centre. Twelve children, 4 girls and 8 boys (age range 48 to 60 months, $M = 54.57$, $SD = 5.20$) were videorecorded during free play sessions. Videos were coded for both positive and negative risk-taking and levels of risk-taking using a scheme developed by the first author (Little & Eager, in press) and the number of peers present during social participation. Results indicate that the impact of peers is limited, but that play involving pairs of peers is associated with low level negative risk-taking. Limitations of the results, including the exploratory nature of this study, are discussed.

Key Phrase: Risk-taking, outdoor play, peer interaction, surplus safety

2420 Â®

[Paper](#)

Finding the balance: Early Childhood practitioners' views on risk, challenge and safety in outdoor play settings

Helen Little

A growing body of research has provided evidence of both children's desire for challenging play that involves a degree of risk-taking and the role that positive risk-taking has in fostering children's optimal health and development. At the same time, there is mounting concern that Western societies are becoming increasingly risk averse with many everyday activities now being seen as dangerous and something to be avoided. Consequently, safety concerns and stringent risk minimisation strategies are eroding children's opportunities to take sufficient risks in play in order for their playground experiences to be interesting and developmentally challenging. This paper presents the argument that factors such as the Early Childhood (EC) regulatory environment, high child-staff ratios, poor outdoor environments, fear of litigation and an inadequate understanding of the benefits of risk-taking contribute to minimisation of opportunities for risk-taking play. Possible outcomes resulting from these measures include changes to both the quality and quantity of physical play, poor evaluation of risk situations, and increases in unsafe risk-taking. The present study examined these factors through semi-structured interviews with 17 Early Childhood practitioners (16 female, 1 male) recruited from 6 EC centres located in different regions of Sydney. The findings suggest that from a pedagogical perspective, practitioners believe opportunities for risk-taking are important for all aspects of children's development however the regulatory environment places constraints on their ability to provide sufficiently interesting and developmentally challenging experiences. The research findings support the call for more flexible enforcement of regulations and risk assessment procedures to allow practitioners to use their professional knowledge to make informed decisions in managing risk situations.

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2473 Â®

[Paper](#)

A proposal for building and researching ecologies of professional practice in pre-service visual arts primary teacher education

Karen Maras, Joanna Barbousas

The paper presents a conceptual framework for structuring curriculum and pedagogy in pre-service visual arts teacher education in the primary school context. Discussion examines antecedent conditions within the field of Visual Arts Education shaping current and changing conceptions of primary teacher art education. The suitability of a conceptual framework in developing capacity for pre-service teachers when designing visual arts content for K-6 students is explored. Additionally, an outline of a research proposal to investigate the viability of the conceptual framework to the development of ecologies of professional practice in the visual arts primary context is introduced. Discussion begins by identifying and outlining issues related to building pre-service teachers' capacity in a subject typically regarded as a specialist domain of curriculum and pedagogy grounded in discipline specific knowledge and understanding. The shaping effects of forces operating within

curriculum reform, school education and higher education upon the domain of Visual Arts Education and their impact on conceptions of primary pre-service teacher Visual Arts Education are examined. These include the issue of commonsense assumptions informing the identity of pre-service teacher Visual Arts Education. Pre-service teachers, often with little prior discipline-rich experience in Visual Arts Education themselves typically participate in commonsense discourse positioning Visual Arts knowledge as an exclusive specialist practice. The issue of the ever-present fight for discipline identity in Visual Arts Education as articulated in current debates concerning the standardisation of Arts Education in the proposed Australian Curriculum is examined as a concomitant factor highlighting the complexities of Visual Arts pre-service teacher education. Misconceptions of what is Visual Arts Education in curriculum terms also reveal the difficulties teacher educators face in representing the field authentically within the constraints of teacher education programs. Teacher identity in pre-service primary education is also raised as an issue wherein traditional conceptions of artists as teachers prevail and mitigate against pre-service teacher confidence in developing and engaging in ecologies of professional practice in primary teacher art education. On the basis of the analysis of these issues the authors contend that what is needed in primary pre-service teacher education is a suitably designed curriculum framework promoting a means for understanding Visual Arts as a practice and sustaining the development of professional practice in schools. The development of a strong foundation of a conceptual framework supporting curriculum development and how this can be used to structure authentic professional practices in visual arts education is the central consideration in this paper. Discussion of research on domain specific understanding in art outlines the developmental significance of a conceptual framework within art education. It is apparent that a conceptual framework in art education provides pre-service primary teachers a means for anticipating developmental changes in the structure of children's development in art and the imperative for them to work strategically to build knowledge of art practices within the minds of their students. We assert that the adoption of this conceptual framework for understanding the domain of the Visual Arts as the basis for primary pre-service teacher art education has significance for the development of professional practice. How this conceptual framework promotes developing capacity in ensuring curriculum content is structured according to relationships between artworld concepts can be reasonably aligned with the developmental status supported by authentic pedagogical decisions suited to the needs of students is examined.

The paper concludes with a brief outline of a theoretical framework as a possible means for researching the application of the proposed conceptual framework in teacher education and in school education contexts. The initiative, suggested in preliminary terms, is designed to test the viability of this conceptual framework to the development of professional practice in visual arts education. The sayings, doing and relatings occurring in curriculum and pedagogical development in the visual arts classroom will be examined as practices that formulate professional presence within ecologies of practice in the primary school setting. It is envisaged that this research initiative will link various tertiary institutions, pre-service teachers, schools and professional teachers in an action research project.

Key Phrase: art education, primary visual arts education, Visual Arts Education, Higher Education, pre-service teacher education, teaching practice, curriculum and pedagogy, ecologies of practice, professional practice

2053 

[Paper](#)

Towards a Proximate Pedagogy: Teaching Australian Literature in a National English Curriculum

Larissa McLean Davies

This paper is interested in exploring the place and possibilities of Australian literature in secondary English classrooms. To this end, this paper examines the background and politics of the current debate about teaching Australian literature in subject English, and analyses the ways in which this debate has informed the various iterations of the Australian Curriculum for English released since October 2008. I offer a close analysis of the shifting ways in which Australian literature has been presented in the drafts of the proposed English curriculum, and consider the implications of these representations of national literature for subject English. In the conclusion of this paper, I draw briefly on Ken Gelder's recent work on 'proximate reading' (2009) in order to gesture towards ways in which a study of Australian literature might 'make a difference' to the ways in which secondary students negotiate the concepts of nation, identity and belonging in the 21st century.

1858 

[Paper](#)

The native speaker assistant as a resource in language classrooms: a study of seven schools.

Robyn Moloney, Stephanie Ross

For the past three years, considerable media and governmental attention has been directed towards the study of Australian literature. This focus on the ways in which schools and universities teach and select Australian literature has been reflected in many articles printed in the mainstream media (for example: Neill, 2006; Donnelly, 2007; O'Connor, 2007; Topsfield, 2007) and in governmental and institutional responses to this issue. In August 2007, the Australia Council for the Arts convened an Australian Literature in Education Roundtable. Since the publication of the Communique following this event, the first national survey of the teaching of Australian literature in senior secondary and

tertiary institutions has been completed and the first comprehensive anthology of Australian literature has been published (Jose, 2009). An interest in the teaching of Australian literature is particularly evident in both the selection of the material for the Macquarie Pen Anthology (Goldsworthy, 2009), and also in the extensive support material provided free online designed for secondary teachers which accompanies this substantive volume. Further, and most significantly, the debate about the teaching of Australian literature, as I have argued elsewhere (McLean Davies 2008a, 2008b and 2009) has significantly influenced the various iterations of the Australian curriculum for English released since October 2008. In light of the sustained and considerable interest in the teaching of Australian literature, and the ways in which the debate around this issue has informed the development of the Australian Curriculum for English, the purpose of this paper is twofold. First, I will draw on Pierre Bourdieu's notions of capital, legitimacy and consecration (Bourdieu, 1993; Moi, 1999) in order to analyse and critique the way in which first complete draft of The Australian Curriculum: English—released on March 30, 2010—represents, defines and positions the study of Australian literature in subject English. I will consider the extent to which the representation of Australian literature in current draft of the Australian Curriculum: English resonates with the rationale, to create a curriculum which will help students to "extend and deepen their relationships, to understand their identities and their place in a changing world, and to become citizens and workers who are ethical, thoughtful and informed" (ACARA, 2010, p1). In response to this analysis, and in the absence of explicit pedagogical approaches to the teaching of literature in the Australian Curriculum: English, the second part of the paper will draw on and appropriate Ken Gelder's recent work on "proximate reading" (Gelder, 2009) in order to suggest a framework for teaching and studying Australian literature in subject English. I will argue, in this substantive part of the paper, that a 'proximate pedagogy' which directs attention to issues of closeness and distance in Australian writing can provide a useful framework for the teaching of Australian literature in a globalised, post-colonial context. In order to advance this contention, I will draw on Richard Flanagan's award winning novel *Wanting* (2008), a text marketed for use in senior English classes. By offering a reading of this text in terms of proximity, I will explore the study of Australian literature might 'make a difference' to the ways in which secondary school students engage with the complexities facing Australian writers and readers as they negotiate concepts of nation, identity and belonging in the 21st century.

2356a A®

[Paper](#)

Systems thinking applied to formulating an interdisciplinary subject, research and a case study arising from that research.

Graham Moore

This paper isolates the challenges to designing a textbook for the interdisciplinary subject *Reshaping Environments*. The first main challenge is how to transcend the often simplistic personal epistemic conceptions that students have which impede their ability to understand and integrate multiple perspectives. They tend to remain trapped in thinking there are right answers or it is all a matter of opinion, which prevents them from reaching a reasonable and creative balance of the multiple and conflicting perspectives from multiple disciplines. The second challenge is how to enable readers to think like expert interdisciplinarians, given that such thinking is abstract, complex and effectively invisible for students. The paper isolates principles for meeting these challenges, and then will present an excerpt from the chapter on interdisciplinary processes to illustrate how these principles can be made concrete. By exposing problems which cannot be resolved while they remain thinking in terms of absolute right and wrong or equally valid opinions, students are stimulated to abandon their simplistic epistemic positions in favour of something more sophisticated that can support interdisciplinary thinking. By presenting the questions that interdisciplinarians address when they are thinking through complex environmental issues, and by having students address these same questions, they begin to be interdisciplinarian thinkers.

1723b

[Paper](#)

Year 9 as Co-Researchers: "Our Gee"™ d Up School™

Eve Mayes, Susan Groundwater-Smith

The Priority Schools Program (PSP) in New South Wales has for more than a decade concentrated on student engagement and high expectations. Within the Quality Teaching Model, student engagement is considered to be a vital component of effective pedagogy. In the project reported here, it has been acknowledged that engagement goes well beyond compliance, often thought of as procedural engagement. The work of the Fair Go team, established through the University of Western Sydney, has identified the significance of the messages that students receive about their knowledge, ability, control, place and voice, acknowledging that students at schools in low-socioeconomic areas have typically received deficit messages. The team at C.P. High School has sought to engage students at a whole school, classroom and individual level through actively promoting student voice. It has been believed by the team that, without actively articulating engaging messages about student voice, any innovative classroom activities would not be effective in producing long-term engagement. The need for transformation of student beliefs about their potential, their education and their world is central to lasting engagement. By "authorising"™ resistance through students reflecting on teaching and learning, it was hoped that passive resistance and challenging behaviours would diminish. The utilisation of students'™ voices as co-researchers has the potential to lead to radically different student subjectivities, reorienting students'™ views

of themselves, their literacies, their school and their futures. A process has begun to seek students' opinions on the learning environment, teacher/ student relationships and learning activities. Under the auspices of the National Partnership Program on Literacy and Numeracy and its focus on high quality teaching, strong leadership and effective use of student performance information, the school has chosen to pay particular attention to the quality of teaching and learning in Year 9. This year was considered to be the period during which disengagement, disaffection and disconnection set in, with many students failing to recover from these conditions as they progress into the senior school. An important form of intervention was seen to be one that would enable students to raise issues of satisfaction and concern in the form of Year wide research. To this end a representative student research steering committee was formed. These students nominated themselves and were interviewed by a student leader and a teacher. The student steering committee has been involved in designing, administering and interpreting the ongoing inquiry into teaching and learning. Students were initially trained in a variety of research methods and the contexts in which they might be applied. Students considered the advantages and disadvantages of questionnaires, focus groups, scenario-based inquiry and photography essays as methodological tools. They narrowed the focus of the research and were trained to facilitate research with small groups of their peers. These students led the Year 9 research day, analysed the data and presented their findings to the teachers at C.P. High School. This led to a genuine dialogue between teachers and students, with teachers subsequently endeavouring to re-vamp units of work to incorporate student recommendations. Steering Committee members led student evaluations of these changes later in the year, collectively reflecting on whether they felt that teachers had listened to their perspectives and made effective modifications to their pedagogy and units of work. It has been noted that not all the outcomes of consulting young people have proved to be comfortable for educational professionals. However, it is believed at C.P. that greater student agency can lead to greater student commitment, confidence, critical awareness and cognitive reflection. Effective participation by young people in advising their teachers of the ways in which their professional practices facilitate or impede learning cannot be taken lightly. If consulting young people is to be seen as a powerful means of enhancing teacher professional learning, then it cannot be a short-term, tokenistic strategic tool, but rather the means through which to foster a genuine person-centred school where trust and openness are valued and celebrated and where all who participate in it see themselves as members of an equitable and civil society.

2356c Â®

[Paper](#)

Showing interdisciplinarity in a first-year textbook using case studies of "real world" research

Blythe McLennan

In this paper I contribute to the collective goals of the symposium by considering the learning opportunities presented in one of the case studies from the textbook being developed for the subject Reshaping Environments. The case studies are practical examples of "real world" interdisciplinary research that are presented in a way that makes the research process accessible to first-year students. The project presented in the case study described in this paper is based on my PhD research in the Human Geography program at the University of Alberta, in Canada. It examined challenges for pursuing social and environmental sustainability in a rural region of Costa Rica that is rapidly transforming under forces of globalization. The case study challenges students to look beyond the environmental sustainability implications of forest recovery that has occurred in the region to consider issues of social sustainability also. Interdisciplinary teaching and learning is not restricted to factual knowledge but includes a strong concurrent focus on developing students' skills to engage in the process of "doing" interdisciplinarity, as both scientists and practitioners. I therefore propose that showing rather than telling the value of interdisciplinarity with case studies can stimulate a deeper understanding of the concept amongst students as well as giving it more legitimacy. This is because first-hand case studies of "real world" research expose the practice of interdisciplinarity to students. However, the power of case studies to stimulate deeper interdisciplinary learning is greatly increased when the case studies are used in conjunction with complementary teaching tools such as reflective journals, group discussion and group projects. These tools enable students to reflect on and engage directly with the concepts, processes, tools and ways of thinking that are exposed in the case studies. In this way, students have an opportunity to engage in experiential, and hopefully transformational, interdisciplinary learning.

1729

[Paper](#)

Living by fat numbers: Exposure and effect of corporealism in a sporting culture? Stories from three Australian swimmers

Jenny McMahon, Dawn Penney

This presentation is based on doctoral research which investigates the bodily experiences of myself (McMahon) and two other former swimmers. The focus of this study is to explore the exposure and effect of "living by fat numbers" which first occurred for myself and the two other swimmers within the sporting culture of Australian swimming. This research has two distinctive sections. The first section articulates the stories of experiences of "living by fat numbers" as adolescents within the sporting culture of Australian swimming, striving to achieve corporeal perfection with the intention of enhancing our competitive performance. The second section explores the bodily experiences of the same three participants as adult women, some 10-30 years after being immersed in the Australian swimming culture. This section examines whether myself and the two other

participants are still “living by fat numbers”, the discourses through which this occurs, and ways in which we can be seen to have challenged the discourses and practices which we experienced as adolescents. The research utilises “relational analysis” (Kirk, 1999) and by “connecting the dots” (Klein, 2000) seeks to explore whether “living by fat numbers” and practices of corporeality as adolescents has had an “effect” on long term wellbeing. The aims of this research project were to articulate the intrinsic and extrinsic “living by fat number” practices experienced by three participants, all of whom participated in the culture of Australian swimming as adolescents, and the subsequent effect of those practices on them, as adolescents and also in post-career, some 10-30 years later. Narrative ethnography (also used by Tedlock, 1991) and autoethnography were found to provide us [myself and the other two participants] with the appropriate space to reveal our knowing and detail our lived experiences in the elite and amateur sporting culture of Australian swimming. The choice and development of the research methodologies related primarily to four considerations which were considered to be imperative in this research: To foreground the swimmers’ voice and the body’s voice in the research; To achieve and maintain highly collaborative relations throughout the research process; To enable the reader to take on and read from the positions and perspectives of the participants, vicariously sharing in their experiences as three adolescent elite swimmers and as 30-40 year old women; and To ensure that the research process had purpose for the participants, with specific recognition that there may be emancipatory potential in this work. In writing associated with this research, stories from the participants are foregrounded as primary data. The stories presented reveal acts of corporeality which led the three participants to “live by fat numbers” as adolescents. These stories also highlight the stress associated with “living by fat numbers” as adolescent girls which subsequently led to self surveillance (Foucault, 1977). The second section highlights that some 10-30 years on from their adolescent experiences and participation in the cultural context of Australian swimming, all three swimmers continue to “live by fat numbers” outside of the context and discourse to which they were first introduced to it. “Living by fat numbers” continues to pervade each of the three participants at meal times and in everyday body practices. Thus, the data is presented as signalling a link between the exposure and effect for these three participants. It is impossible to ignore the interplay between the body, power and knowledge and the effects that culture have on the body and selves both in the short term and long term. Further examination of the effects of a corporeal approach to the body by looking at the obsessive body practices of contemporary culture and in particular the micro-culture of Australian swimming, is undoubtedly needed.

2478 Â®

[Paper](#)

Parents' risky choices around the IB Diploma

MU Li, Catherine Doherty

In recent years there has been a rapid growth in the International Baccalaureate Diploma (IBD), a secondary curriculum administered by the International Baccalaureate Organisation (IBO), as an alternative to the local curriculum in Australian schools in some schools. This growth is indicative of an increasing demand from Australian families for new educational structures, practices and processes. With more curriculum options and pathways such as the IBD available in the secondary education system, parents are faced with a more complex high stakes decision when it comes to choosing the optimal education path for their offspring, one which requires a careful assessment of potential outcomes and risks. This paper reports on the responses of 184 parents to an online survey conducted in 26 Australian schools that offer the IBD as a curricular alternative. It examines which parents either chose, or chose not to, enrol their children in the program, why, and what risks they perceived to be associated with that choice. The paper will compare the choice behaviour of the two groups of parents from a sociological perspective, framing the enquiry with reference to globalisation and neo-liberal education policy and its effect on parental choice of schooling. This paper will make evident how parental choice of educational alternatives has become a more complicated process for Australian families.

2395 Â®

[Paper](#)

What counts as accomplishment in geography teaching? On signature pedagogies, professional standards and the performativity of practice

Dianne Mulcahy, Jeana Kriewaldt

Set within the context of neo-liberal education policy reform, this paper addresses the question of the character of accomplished teaching, with particular attention to accomplished geography teaching. Taking the development of standards for teaching school geography in Australian schools as its ground, it explores the putative roles and relations of teaching standards and signature pedagogies (Shulman, 2005a) in this teaching. Drawing on concepts from actor-network theory and video case data of classroom teaching, attention is given primarily to pedagogic practices as possible patterns of relations, both social and material, within school geography. The data collection approach adopted used technically complex methods for video recording classrooms and supplemented the video records with 57 post-lesson, video-stimulated interviews with students and the teacher in an effort to “capture” the specificities of practice. Eleven case studies (22 lessons altogether) were conducted in eight schools in three major Australian states. Working three video-based case examples of classroom practice from the larger video data set, along with teacher and student commentary on this practice, we show that a somewhat different reality of accomplished geography teaching, and of standards and pedagogies for this teaching, presents in

each classroom. Geography teachers were found to be both teaching in a signature form and beyond this form, through, for example, creating conditions for the further development in their students of attributes of lifelong learning and active citizenship. Accordingly, the empirical evidence did not strongly support the idea of a signature pedagogy for school geography. Rather, it "told" pedagogy as a contingent, distributed and diverse practice. We propose that a wide variety of pedagogies and the professional wisdom (of practice) to select among them, might be just as suitable a characteristic of accomplished geography teaching as any signature pedagogy.

2496 

[Paper](#)

Affective encounters: The critical contribution of embodiment and emotion to 'accomplished' teacher subjectivities and professional teaching standards

Dianne Mulcahy

In this paper, I draw on video case data of classroom teaching collected as part of a national study of professional teaching standards and teacher professional learning in which accomplished teachers (in this case, school geography teachers) and their students took part, towards tracing teacher subjectivities and teaching standards in situ. Particular attention is given to affective encounters which tend to be downplayed in standards development work around quality or accomplished teaching and teachers. In association with other concepts drawn from actor-network theory (Latour, 2005; Law, 2009a) and poststructuralist theory that invokes the work of Deleuze (Massumi, 2002; Thrift, 2008), the concept of socio-material practice is used to make an argument about the centrality of affect, as a socio-material process, to accomplished teaching and teaching standards. Exploring teacher subjectivities and teaching standards as practised affords a strong sense of the affective, embodied and emotional terrain of teaching and invites attention to the role that affect and emotion, as "unruly practices", can play in challenging our currently established systemic concerns in education with (received views of) scientificity (eg. metrics, measures). My main interest in this paper is to examine how these embodied enactments create new spaces for thinking and "doing" teaching standards and identities of "accomplished" teacher and teaching, and augment existing knowledge in the fields of teachers' work and standards research.

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1779 

[Paper](#)

Factors that Motivate Aboriginal Students to Improve their Achievement in School Mathematics

Kanwal Singh Neel

For many years, the achievement and participation rate of Aboriginal students in mathematics in British Columbia (BC), Canada has been significantly lower than those of the general student population. This article investigates factors in community, school, and personal life that could influence the success rates of Aboriginal students in school mathematics and mathematics-related disciplines.

2458 

[Paper](#)

Parents views on their use of multiple and changeable care - Using computer-assisted telephone interview (CATI) in the Child Care Choices (CCC) study

Cathrine Neilsen-Hewett, Linda J. Harrison, Alan Taylor, Naomi Sweller, Jennifer Bowes

This study uses longitudinal telephone survey data gathered from using a computer-assisted telephone interview (CATI) facility to examine families' use of multiple and changeable patterns of child care over the prior-to-school years. Despite the increasing use of multiple care arrangements, little is understood about why parents use mixed care or change the care arrangements for their child. Six-hundred and seventy-seven children and families were recruited from long day care centres and family day care schemes in metropolitan and rural New South Wales with 257 families participating in all six waves of the study. A factor analysis on the reasons offered by parents for their use of multiple care revealed two main factors: (1) families were in control of their child care choice or (2) families chose child care in response to outward pressure. The majority of children in all age groups did not change child care arrangements with most of the rest changing once only. Most parents felt that changing their child's care arrangement was their choice although a substantial minority of parents felt the change was definitely out of their control. Parental choice may be an important factor in perceptions of quality in child care. Key Phrase: childcare, multiple care, changeable care, parent choice, urban-rural

1997 

[Paper](#)

Reflection that informs teacher judgment:

Determining the appropriateness of differential classroom behaviors

Melissa Newberry

Introduction of Topic The way the teacher interprets and responds to the student and vice versa will determine much about the success of that shared experience. Studies show that teachers tend to have preferences for students who are like them, in personality, background and experience (Morganett, 2001; Author et al. 2008) and who are likely to facilitate ease in classroom management by demonstrating desired behaviors (Babad, 1993; H. Davis, 2006; Wentzel, 1993). Additionally, teachers prefer to spend time with students who reflect and support the role they have conceived for themselves (Woolfolk Hoy, Davis, & Pape, 2006). The practice of reflection in teaching can be helpful in improving teacher practice (E. Davis, 2006) and it may also be a valuable tool in improving relationships that form in the classroom. Previous research has proposed a model that represents how teachers are influenced by aspects of student personality and need which then influence the stance they take when interacting with a student (see Author et al 2008). The authors report three main factors that influence how teachers interact with students: negotiating personality (student attributes), relational press from the child (attention required/ demanded), and dealing with challenge (management of special circumstances). The model also identifies five different interaction-approach orientations that are indicative of how the teacher is receiving the student and how she tends to deal with him/her. They are (1) feeling affinity, (2) being reflective, (3) implementing strategies, (4) treating causally and, (5) acting professional. The original three factors determine the interaction; positive feelings lead to approaches that are reflective and full of affinity. Negative feelings lead to approaches that are likely to be rote, casual and merely professional. Aim of Project In this study, attempts to further explore the basis for these judgments were made through a closer examination of a teacher and two of her students. The dual purposes of this study are 1) to examine a teacher's differing classroom behaviors; and 2) to re-examine a previous model on motivations for teacher interaction. To do this, two relationships dyads involving the teacher were selected for further inspection. Research Methods The study was conducted following narrative qualitative research techniques based on a phenomenological framework. Data were gathered through various means including classroom observations, interviews, and written reflections. Eighteen in-class observations were made throughout the school year. There were two kinds of interviews, each occurring 4 times. The first was a structured interview included an activity known as the Adapted IOS (see Author, 2006), in which the teacher created a diagram for each student in the class, representing the closeness felt in the relationship. Open-ended interviews were conducted two weeks after the structured interviews. Between the time of the structured interviews and the open-ended interviews, the teacher was asked to write a reflection based on her experience using the Adapted IOS. Each method of data gathering was subject to constant comparative method (Glaser, 1978) of analysis throughout the process as the transcripts of the interviews and reflections were reviewed and used to guide the next step in data gathering. Findings are presented in a narrative comparison of the two relationship dyads. Research Findings Taking time to reflect on relationships often has a positive affect on those relationships, but it does not necessarily mean that there will no longer be differential behaviors in the classroom. Perceived motivations for interactions appeared to influence the direction and quality of the relationships between the teacher and the students. The teacher did act in response to the student's personality, her press for a relationship, and her specific challenges, as indicated in the Author et al model (2008) and those factors correlated with her action toward them. However, upon closer scrutiny of the data there seemed to be more processing that took place between the identifications of those factors and the resultant approach. An alternative model is suggested which incorporates a separate dimension including judgments of relation, reflection and reward, in which the initial factors are weighed. This dimension incorporates sorting information and processing feelings that collectively guide teachers' decisions. It is a process in which the teacher determines shared interests or other commonalities, makes judgments made regarding needs, requirements to meet those needs, responsibility and role, and effort necessary as well as attempts to predict outcomes for the parties involving success academically, socially or personally. This process is more easily facilitated through guided reflection techniques such as the one used in this study.

2521 Â®

[Paper](#)

A Critical Review of the Current Cyber Bullying Research: Definitional, Theoretical and Methodological Issues. Where Do We Go From Here?

Katrina A. Newey, Natasha Magson

Past documentation of schoolyard behaviour showed that bullying existed long before it became a focus for empirical researchers, psychologists, and educators (Rigby, 2002). Recent interest has arisen with the increase in the reporting of bullying behaviours occurring within the workplace, classroom, and via new communication technologies (Patchin & Hinduja, 2006; Rigby, 2002). Research has also increased due to the recognition of bullying as an invasive school issue, with harmful long-term outcomes for many students and school communities (Hinduja & Patchin, 2007; Li, 2006; Mason, 2008). With recent widespread use of new technologies, school students today have expanded traditional bullying techniques into the virtual environment. This is known as cyber bullying, and includes the use of online chat, email, websites, and instant messenger (IMs) social networking sites to bully others (Aricak et al., 2008; Smith et al., 2008). The present investigation will be conducted to: investigate the characteristics, motivations, and goals of those who engage in cyber bullying; the impact of cyber bullying on bullies, targets, bystanders, families, and the

community; the relations between cyber bullying and traditional bullying types; and the potential characteristics required for successful cyber bullying interventions. The primary proposed outcome for this research investigation is to build the capacity of students, parents, school and community by investigating and understanding the complexity of why adolescents become involved in the vicious bullying cycle and to later utilise these findings to prevent, address and minimise cyber bullying to enhance young Australians cyber safety, health, and wellbeing in a socially innovative and sustainable manner. In summation, this paper will be highlighting the previous theoretical and methodological problematic issues in past bullying research, will be discussing the gaps in the literature and provide a summary and justification for a newly proposed cyber bullying study. Cyber bullying is a relatively new phenomenon, and literature on the area is only starting to uncover and explore the nature, definitions, incident rates, gender differences, and the affects this type of bullying has on adolescent students. Australian research it is yet to elucidate the nature and prevalence rates for different cyber bullying forms, which is crucial to understand in order to create cyber bullying prevention programs (Lodge & Frydenberg, 2007). Considering the trend that traditional bullying behaviour increases as students get older, peaking during the early high school years, it is not clear whether the same trends exist for those using cyber methods. However, a study conducted by Kowalski and Limber (2008) with students from year 7, 8, and 9 found that 11% of students had been cyber bullied, 7% had been involved in both bullying and being bullied using cyber methods, and 4 % had cyber bullied another person in the last two months. These results suggested that this type of bullying may be on the rise as 50% of the teenagers in their sample owned a mobile phone, and 97% of students had access to the internet, with a large proportion of these students using electronic devices daily. Li (2007) also investigated cyber bullying with 177 grade seven students and found 54% were both bullied and targeted with traditional methods, and a quarter of this group had also been subjected to cyber-bullying. Furthermore, one in three students had bullied another by traditional styles; and 15% had bullied others via technological communication sources. However, these cyber-bullying prevalence rates may be overestimated due to the problematic research practices used (i.e., dichotomous variables, single-items indicators).

2424 Â®

[Paper](#)

Exploring learning experiences during an early childhood curriculum change in Singapore

Josephine Ng

This paper is part of a major research project on early childhood curriculum reforms in Singapore . Singapore launched the Pre-school Curriculum Framework in 2003. The resultant new curriculum focuses on developing the child holistically, on learning through play and experimentation, and on interacting with the teacher. The role played by teachers as change agents in the implementation of the new play curriculum must not be overlooked. As part of the reform the Ministry of Education (MOE) mandated that all preschool teachers had to have an accredited teaching diploma by year 2008. The aim of this reform in teacher education is to promote a shift in practice, knowledge and beliefs in pre-school teachers. A general recognition of teachers' professionalism was emphasized with a new education and training regime for teachers to promote quality teaching in a new era of a play curriculum. However, little attention has been given to Singapore's cultural and competitive environment which leads to teachers trying to make sense when negotiating the challenges and demands of this new professionalism. The new curriculum is challenging as theories of early childhood pedagogy and play may be interpreted differently, in practice, by teachers with differing teaching experiences, training and life histories. Teacher's knowledge of "play" is based on their personal understanding and experience, from which they contextualize the development for children's learning. A qualitative research methodology was used to study the lived experiences of children and teachers during the curriculum reform. The research entails a case study of one kindergarten. Data collection methods consisted of interviews, observation and document analysis. Discussions on the children's learning based on observations and analysis of this study will provide information on how the kindergarten teachers have approached the reforms.

P

2437 Â®

[Paper](#)

Effective leadership in higher education: The "circles of influence"

Dominique Parrish

Research suggests that leaders and leadership play a critical role in a university's success (Bryman, 2009; Scott, Coates & Anderson, 2008). Despite this assertion there is little empirical evidence to suggest what effective leadership in a higher education context entails. This study was an attempt to address this gap by examining leadership from a perspective of the interrelationships and influences that impact on effective leadership in higher education. The key factors that were explored included emotional intelligence, job satisfaction and leadership practice. These key factors and the relationships between them were examined in eleven case studies. A mixed-mode case study research design was used with job satisfaction, emotional intelligence and individual interview data being collected from each of the eleven case study participants pre and post engagement in a leadership capacity development initiative. The findings from this study advocates the importance of emotional intelligence for leadership in higher education and suggests that emotionally intelligent leaders are more satisfied in their role and more likely to engage in effective leadership practices. A synthesis of the analysed qualitative and quantitative data has resulted in the generation of twelve

emotional intelligence leadership capabilities that are proposed as indicators of effective leadership in higher education. In addition to these capabilities two hypotheses have eventuated. Firstly, that emotional intelligence is central to effective leadership in higher education and secondly, that leaders regularly practicing emotional intelligence will have greater job satisfaction. These hypotheses have been pictorially represented as a framework that has been coined the "circle of influence". This is because the framework relates to a leader's sphere of influence and engagement and articulates the interrelationships that this research study identified, exist between job satisfaction, emotional intelligence and effective leadership practice in a higher education context.

Key Phrase: "circle of influence", effective leadership, emotional intelligence, higher education, job satisfaction, leadership, leadership practice

2472 Â®

[Paper](#)

Midline crossing movements: A teachable skill for developing children

Scott Pedersen, Matthew Young

It has been suggested in the motor learning literature that the ability to perform efficient midline crossing movements can contribute to skill acquisition requisite for successful physical activity and sport participation (Ayres, 1972; Surburg & Eason, 1999; Pedersen, Heath, & Surburg, 2007). The present study was conducted to determine if a single bout of deliberate laterality practice could facilitate the initiation of midline crossing movements in children between the ages of 8 and 11. Thirty children were randomly assigned to one of three treatment groups. Each group received one treatment, 30 minutes in duration, spaced between a pre- and post-assessment of upper extremity choice response time, which required the participant to perform goal-directed reaching movements to a contralateral stimulus across the midline, to the midline, or to an ipsilateral stimulus that did not require a midline crossing movement. Response time was divided into reaction time (RT) and movement time (MT), with RT being the dependent variable of interest. The first group performed contralateral ball-bouncing (CBB) exercises that only involved arm movements that crossed the midline of the body; the second group performed ipsilateral ball-bouncing (IBB) tasks that only required arm non- midline crossing movements; and the control group played the Nintendo DS. Children in the CBB group became significantly faster at contralateral RT during the post-test, whereas the other two groups made no improvements in midline crossing RT. In fact, the control group became significantly slower at midline crossing movements after the 30 minutes of video game play. Even after a short bout of deliberate laterality practice children that practiced contralateral movements significantly improved their ability to initiate complex, midline crossing movements; whereas the children that did not practice midline crossing movements did not exhibit any improvement in midline crossing behaviour. Physical education teachers can utilise this developmental-appropriate approach when designing games and activities for children who could benefit from laterality practice. In turn, this development may facilitate a child's potential to successfully participate in physical activity or sport.

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Secondary Teachers' Use of Technology for Teaching Mathematics

Robyn Pierce, Lynda Ball

In Victoria the use of technology in mathematics is strongly encouraged for years 7-10 (VCAA, 2008) and expected at year 11 and 12 (access to technology is assumed for some final secondary school assessment tasks, including examinations (VCAA, 2010)). The curriculum advice for teachers incorporates statements about use of technology for students' learning of mathematics. This paper reports on responses of 92 secondary mathematics teachers from Victoria to a survey probing three issues: the mathematics software these teachers were using; the purpose of use; and teachers' concerns related to using technology for teaching mathematics. Survey responses indicated that teachers made most use of technology with senior secondary classes and the use of graphing and spreadsheets or tables was dominant. Although the use of technology for mathematics is an accepted part of school culture in Victoria, and encouraged through curriculum documents, it seems the focus is still on functional opportunities afforded through efficient computation. A minority of teachers expressed concerns regarding time and access constraints. The findings in this Victorian study add to the evolving picture of the use of technology in Australasian secondary mathematics classrooms through providing extra details related to year level and purpose.

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Recognising lifelong and life-wide learning to achieve Bradley's participation and equity targets for Australian higher education

Tim Pitman, Lesley Vidovich

As a result of the Bradley Review (2008) of higher education, Australian universities are under pressure to enrol more students from diverse social and educational backgrounds. This paper considers how the recognition of lifelong and life-wide learning (commonly known as "recognition of prior learning" or RPL) might be used to enhance higher education access for a larger and more

diverse group of students, particularly those from disadvantaged backgrounds. Within a critical theoretical framing, the paper presents selected findings from a larger research study of the admission policies and practices of different types of universities. The focus here is on the Australian Technology Network (ATN) group, which prides itself on championing principles of participation and equity, consistent with the goals of the Bradley Review. To complement a discourse analysis of university policy documents, findings from interviews with staff involved in the development and enactment of admission policy at one ATN university are analysed. Findings reveal that the ATN group is well-positioned to deliver increased enrolments of students from disadvantaged backgrounds through RPL. However there is evidence that current admission policies and practices focus on notions of academic quality and meritocracy, and this might act to undermine attempts to make the sector more accessible. Implications for admissions policy development which harmonise with the Bradley reforms are also discussed.

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