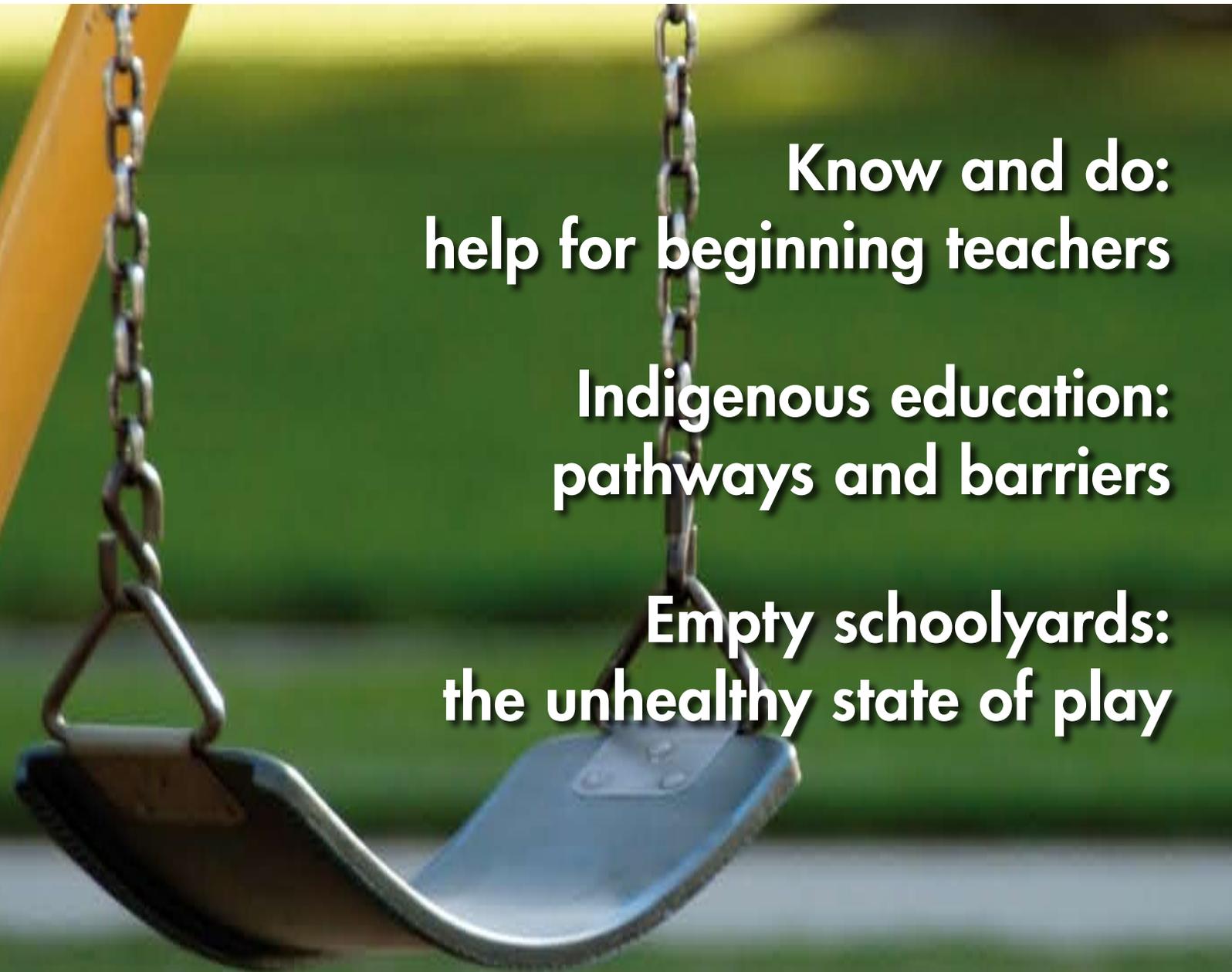


Professional Educator



**Know and do:
help for beginning teachers**

**Indigenous education:
pathways and barriers**

**Empty schoolyards:
the unhealthy state of play**

PROFESSIONAL EDUCATOR

ABN 19 004 398 145 ISSN 1447-3607
 PRINT POST APPROVED PP 255003/02630

Published for the
 Australian College of
 Educators by ACER Press



EDITOR Dr Steve Holden
 holden@acer.edu.au 03 9835 7468

JOURNALIST Rebecca Leech
 leech@acer.edu.au 03 9835 7458

AUSTRALIAN COLLEGE OF EDUCATORS
 ADVISORY COMMITTEE

Hugh Guthrie, NCVR
 Patrick Bourke, Gooseberry Hill PS, WA
 Gail Rienstra, Earnshaw SC, QLD
 Mike Horsley, University of Sydney
 Cheryl O'Connor, ACE
 Penny Cook, ACE

PRODUCTION Ralph Schubele
 schubele@acer.edu.au 03 9835 7469

NATIONAL ADVERTISING MANAGER

Carolynn Brown
 brown@acer.edu.au 03 9835 7468

ACER Press 347 Camberwell Road
 (Private Bag 55), Camberwell VIC 3124

SUBSCRIPTIONS Lesley Richardson
 richardsonl@acer.edu.au
 \$87.00 4 issues per year
 Ph 03 9835 7470 Fax 03 9835 7499
 www.acer.edu.au/professionaleducator

ACE MEMBERSHIP

ace@austcolled.com.au Chris Cameron
 www.austcolled.com.au

AUSTRALIAN COLLEGE OF EDUCATORS

James Darling House,
 42 Geils Court, Deakin ACT 2600
 Ph 02 6281 1677 Fax 02 6285 1262



All reasonable attempts have been made to trace copyright holders of material published. Material contained in *Professional Educator* is protected under the Commonwealth Copyright Act 1968. No material may be reproduced wholly or in part without written consent from the copyright holders. The views expressed in this publication are not necessarily those of the Publisher or Editor and do not necessarily represent the views or policy of the Australian College of Educators or ACER. The Editor reserves the right to edit, abridge or otherwise alter articles for publication. All photographs have been published on the understanding that appropriate compliance with privacy legislation has been obtained. The attention of advertisers is drawn to the Trade Practices Act 1974 and the provisions of the Act that apply to advertising. It is not possible for *Professional Educator* to ensure that advertisements published herein comply in all respects with the Act and the responsibility must therefore lie with the person, company or agency submitting the advertisement for publication.



4 EDITORIAL and LETTERS TO THE EDITOR

6 OPINION

- **Bruce Addison** asks why our newspapers accentuate the negative
- Grading wool is fine, says **Sean Burke**, but not grading students

8 FEATURE – SOLVING THE RESEARCH PUZZLE

Carolyn Page reports on research into quality teaching and school leadership that identifies some of the key education policy issues

14 NEW TEACHERS – KNOW AND DO: HELP FOR BEGINNERS

What should beginning teachers know and be able to do?

Ross Turner has some answers

18 INNOVATION – SCIENCE AND INQUIRY

Want to implement an inquiry-based approach in Science? Try these tips from **Doug Jones**, **Wayne Melville** and **Anthony Bartley**

22 TEACHING AND LEARNING – OETZI: THE ICE MAN

Helen Billett, **Heather Boundy**, **Mark Chapple**, **Steve Fraser** and **Gary Simpson** explain how to extend teaching and learning across the curriculum

26 RESEARCH

- **Mark Corbett** considers the International Baccalaureate, outcomes-based education and a critical curriculum
- **Katrina Alford** and **Richard James** report on their research into vocational education opportunities for young Indigenous people

34 NATIONAL PERSPECTIVE and IN BRIEF

36 ISSUES – SCHOOL PLAYGROUNDS: THE UNHEALTHY STATE OF PLAY

Changes in our nation's school playgrounds are reducing opportunities for active play and that's unhealthy for our children, says **John Evans**

42 REVIEW

43 THE DIARY

44 AS I SEE IT... Forget your pride of lions

Danny Katz comes clean and shows us his collective noun collection

VITTA

EDITORIAL

When the Ministerial Council on Education, Employment, Training and Youth Affairs met to discuss performance-based pay in Darwin last month it must've seemed like Groundhog Day – you know, the 1993 Bill Murray comedy about a TV weatherman stuck in a time loop in wintry Punxsutawney, Pennsylvania, where he repeats the same Groundhog Day assignment again and again – until he finally escapes through a gradual process of reform. MCEETYA is fiercely protective when it comes to publicity, so it's unlikely you'll ever read a transcript of the Darwin meeting to discuss performance-based pay – again – but chances are it went something like this. Bishop: 'We need performance-based pay if we're to attract and retain the best teachers.' Della-Bosca: 'Sure, but how do we assess the performance of individual teachers?' Lomax-Smith: 'Didn't we talk about this yesterday?' Welford: 'No, that was Brisbane; we're in Darwin.' Henderson: 'So why is it snowing?'

Letters to the Editor**A NATIONAL CURRICULUM – ISN'T THIS A NO-BRAINER?**

Graham Lange, Principal, Pulteney Grammar School, Adelaide

I cannot for the life of me understand why discussion of the possibility of a national approach to curriculum so quickly and consistently raises the hackles of expert educators. Responses rarely find any positives in the suggestion, but almost always point to the doom and gloom that will settle upon us as a result of the loss of innovation and local content.

Do we really believe that a national approach to curriculum automatically, totally and inevitably means no place in the curriculum for state and local interests? That innovation in curriculum will most assuredly disappear? Surely there is common sense in having common elements to curriculum across Australia. Where is the sense, in a country of 20 million highly mobile people, of having a different curriculum in each state or territory? Surely a national curriculum is a no-brainer.

Maintaining the current state-based approach to curriculum makes about as much sense as having different railway gauges in each state, or even allowing the states to manage the Murray-Darling River system. Now we wouldn't contemplate that – would we?

NEW APPROACH TO TEACHING ROUNDS IS A WIN-WIN MODEL

David Zyngier, Lecturer, Faculty of Education, Monash University

When students undertaking the Graduate Diploma in Primary Education at Monash University's Peninsula campus began their teaching rounds this year they were part of a pilot that aims to benefit students and, just as importantly, local primary schools. Instead of placing 110 students in up to 70 different schools, we've decided to trial a new approach. The new model includes sending the students, two to a classroom, to a smaller number of schools, close to the campus for two consecutive days.

Previously, one student was allocated per classroom for one day a week over a period of ten weeks followed up by a three-week teaching block. This meant that during the initial practical side of the course the students' classroom teaching experience lacked continuity.

In the new model, students undertake two single days in the classroom as well as six double days followed up by a two-week teaching block. One of the main advantages to this new timetable is that students have more consistency in the school and have opportunities to follow through on their teaching over the two days.

Having two students per class should be an enormous benefit for schools, their teachers and students, leading to all sorts of new and innovative learning and teaching approaches including acting as critical friends, providing peer support or taking individual students for testing or tuition while full class control is taken by the other member of the teaching team. It's also allowing university lecturers to be more involved in students' hands-on learning experience, with tutorials now being run in schools as a way of further connecting theory with practice.

The pilot is being trialled in five local primary schools this year – Ballam Park, Langwarrin Park, Frankston, Woodlands and Rowellyn Primary Schools. Ballam Park Primary teaching staff are so enthusiastic about the potential of the program for their students that they've decided to increase the number of student teachers in the school from 24 to 32.

That means that 16 of the 18 classes in the school have another two adults, two days a week to assist the children in their learning programs. Staff at the school say the opportunity to be involved in the initiative and to interact with a large group of motivated young professionals who have chosen to continue their own education and become primary teachers is a win-win exercise for the Monash students, the staff and most importantly the primary school students.

PERFORMANCE-BASED PAY? NO WAY

Ian Broinowski, Institute of TAFE Tasmania, Hobart, and the author of Child Care Social Policy and Economics (1994), Creative Childcare Practice: Program design in early childhood (2002) and Managing Children's Services (2004).

A performance bonus payment: it's such a simple and obvious way to deal with lazy, ineffective and incompetent teachers. I mean, they only work a few hours a day anyway to say nothing of those interminable summer holidays! We all know that teachers will perform so much better if they receive just that little bit extra in their pay packet for a job well done.

I have a friend Julie, not her real name, who works in a school that has offered performance incentives for the past few years. She says it's brilliant. Each pay day she and the other goodie-two-shoes line up outside the principal's office waiting for their turn to stand before the 'DESK' and receive a small brown envelope with a few extra gold coins to make their lives so much more worthwhile.

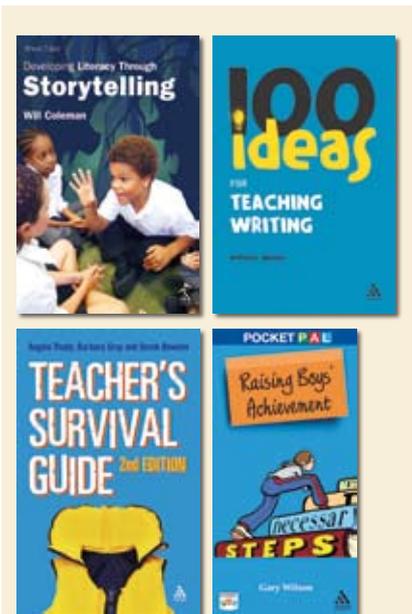
There are some tricks, she tells me. First, make sure you get the bright class. Do whatever it takes: go to endless strategic and policy-making meetings, make coffee for the principal every day, sleep with whomever you have to, but be sure you don't get 'F Troop kids.' Then when a test comes up send the dummies down with the lunch order. Your results are sure to be good. Finally, never challenge kids beyond their ability. Her exams rarely go beyond the two-times table – after all, the departmental auditors – aka corporate police – only look at the results, not the questions.

So each week she smiles sweetly at her principal and goes home with a nice little bonus, thank you very much.

Of course there is a down side to this. What happens to those teachers who are seen to be underperforming – the ones whose teaching simply doesn't match the established criteria laid down by the community or, in recent terms, those who are un-Australian? There are some unfortunate precedents. Socrates, you may recall, was considered to be un-Greek at the time and was executed by the education auditors of the day. Jesus, too, was quite beyond the pale, was certainly un-Jewish and suffered a similar fate, although with a happier ending. So teachers be warned.

Like everyone else, including politicians, when push comes to shove, teachers are in it for the money, yet at the same time money isn't everything. Take Prime Minister John Howard, for example. Highly respected as a leader by George Bush and Tony Blair, he has served the nation well but, like our teachers, when he retires how should his performance bonus be determined?

When a smiling Mr Howard does finally take his leave of the Governor General for the last time, watch for the size of his little brown envelope. It may well reveal a simple truth that politicians, teachers, doctors, in fact most of us are motivated by something far deeper than the crassness that money can reveal. We do our job because it's important to us, nothing less, nothing more, and perhaps my friend Julie and sometimes I think our Prime Minister may have missed the point.



*Congratulations to **Graham Lange** who wins a voucher valued at \$100 courtesy of Allen and Unwin in association with Professional Educator. When it comes to the key educational issues we want to know your opinion.*

Write to us and win.
Email editor.profeducator@acer.edu.au; or write to Letter to the Editor, Professional Educator, ACER Press, Private Bag 55 Camberwell, Vic 3124.*


ALLEN & UNWIN

**Quality resources
for teachers**

www.allenandunwin.com

** Letters from ACER staff and families and Allen and Unwin staff and families will not be eligible to receive a prize. Vouchers are redeemable for Allen and Unwin titles or imprints to the value of \$100.*

Eliminate the negative

When it comes to education, everyone seems to be an expert, but that, says **Bruce Addison**, still doesn't explain why our daily newspapers fail to accentuate the positive.

THE nation's daily newspapers have been giving teachers a lot of bad press lately. It's actually worse than bad since many recent articles seem to imply teachers are intellectually-challenged underperformers. That kind of teacher bashing may help to sell newspapers, but so often it appears to reflect lazy journalism, a lack of critical reflection and an ignorance of what actually occurs in schools.

Understandably, what goes on in our schools, both formally and informally, is of concern to a great number of stakeholders, not least when it comes to the curriculum. The curriculum is, by definition, a political construct. It always has been and always will be because there will always be an imbalance between the demands required in the curriculum and the amount of time available to teach them. The curriculum, in other words, will always be contested and will always, because of that contestation, be a product of its time. One of the most important implications of that, and something we should not be afraid to admit, is that the curriculum changes. An aspect of the curriculum may eventually become redundant because it's outlived its purpose, although it's possible that it was faulty from the outset. To say that there's change in the curriculum, however, is not to say that it's the victim of every passing fad.

No profession gets it right all of the time. Space shuttles blow up, roads are designed that cause fatal collisions, and medical advances can have unpredicted and devastating consequences. Mistakes are made and perspectives change, and in this context education is no different from other areas of human endeavour. The curriculum of the 1970s, when grammar and the construction of language were jettisoned, is a case in point. I should know, I'm a product of it. If I had my time again I would ask to be taught, if not drilled, in this aspect of language, as I enjoy researching and love writing.

I don't hold my school teachers in contempt for the way I was taught, nor do I harbour any bitterness towards those who made curriculum decisions in the 1970s. When I look back at my schooling I remember teachers who instilled in me a passion for ideas, who taught me the importance of patience and tolerance, and who taught me the importance of having a go rather than being obsessed with failure. It was such experiences of learning that drew me to teaching after starting my professional life in the business world. When I was at school the thought of becoming a teacher never crossed my mind; in fact it never entered my mind.

I hope that I act as a role model for my students, that I give them a thirst for ideas even when these ideas are complex, controversial or confusing. I hope that I present the many sides of the issues I teach, that I identify my bias and that I challenge my students to think about theirs. I hope that I model fairness and concern for my fellow citizens and that when I fail I acknowledge this failure to them so that they may do the same. I hope that I work with families to reinforce the values of the home and I hope that I do this with an open integrity that helps to make our society more tolerant of difference. I hope that the seeds I help to nurture grow into tall trees. This is how I value education. Teaching must be a vocation, it must be a passion, it must be a lifestyle, it must be a total commitment. If it is not all of these things then it's not worth doing.

What worries me is that the bad press the profession has been attracting in recent years says nothing about such things, instead suggesting all teachers are evil, ideologically-driven postmodern zealots. It all leaves me wondering about the curriculum, about change, about what people expect from schools and about the inquisitive students in my classes day after day. It leaves me wondering why there's so little in our daily newspapers to explain what a privilege it is to work with such students. Most of all, it leaves me wondering whether or not, given all of the teacher bashing, I would've chosen to change career all those years ago.

Bruce Addison is a teacher of social sciences and a PhD student in Education at the University of Queensland.

Grade wool, not our kids

What's the idea with quintile letter grades? Can you grade students as though they're commodities? Grading wool is fine, says **Sean Burke**, but try grading a student as 17.5 ultrafine merino and see where it gets you.

IN seven years of teaching, I've never given grades to my students. I encourage them, I correct them, I endeavour to teach them, but I do it without giving grades. What would happen if I did? A student who is having difficulty with a subject would be told that he is doing badly, which might deter future effort. A student who is managing the work easily may relax, not try so hard, and become lazy or bored. Worse still, a student may work hard because he or she likes to get good marks – and replacing a student's pleasure in learning with a Pavlovian focus on the gold star or quintile letter grade is, in my view, a crime.

Grading one student against another is neither useful nor meaningful since each student is on an individual learning journey, with its own challenges, interests and end points. In order for a grade to be meaningful, it needs to be a grade I receive today, compared only with a grade I received yesterday, without reference to those received by other people – essentially, a measure of my personal best.

Our current governments, however, hold firmly to the view that my result can be meaningfully and usefully compared with your result, and that education policy can be based on these comparisons. At its most extreme, the current Commonwealth government now requires that schools report to parents using quintile letter grades, A, B, C, D or E, and has made this requirement a condition for Commonwealth funding.

When we accumulate the results of every student in each state and territory, however, we don't create meaningful statistics; all we do is bundle together many meaningless comparisons between discrete individuals.

Many parents who experienced a grading system when they went to school may well ask, 'How will I know how my child is going without getting her grades?'

The answer is twofold.

First, when parents receive reports with quintile letter grades, they don't get information on how their child is going, they only get raw data on how their child compares to the rest of the class in each subject. This can be consoling or alarming, but it's not relevant to their child's actual learning journey.

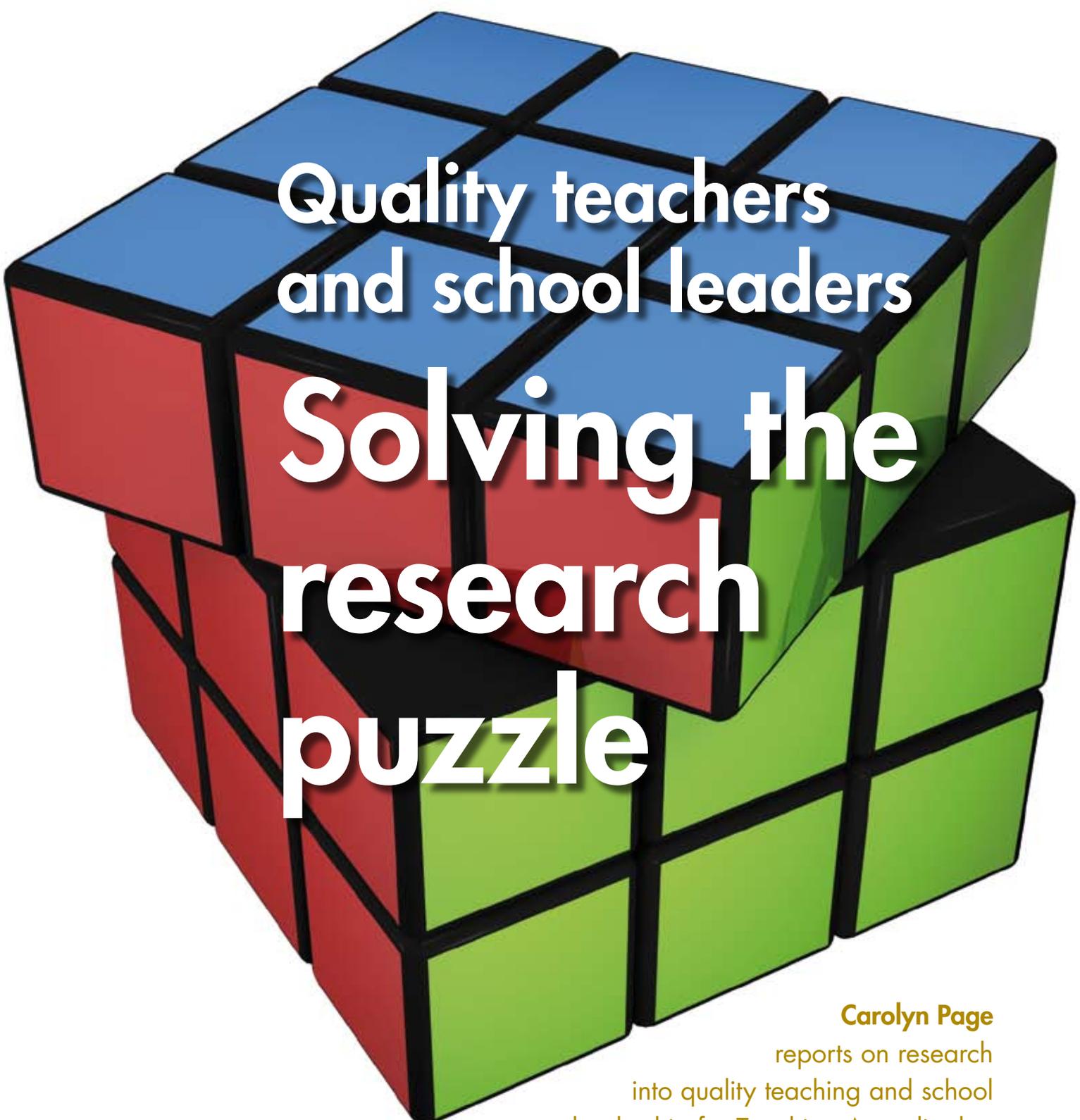
Secondly, what parents really need to be told is what their child actually knows and can do in each subject, how they have progressed since the last report, and what they need to focus on next. This is real reporting, real information, real communication, real teaching.

When I teach without grades, a pass requires mastery – 100 per cent. If the student learns what I've taught, then they have 100 per cent of it. That would be their mark, and it would also be mine, for teaching. If they don't manage to 'get' the whole of the subject, if they can do, say, 80 out of 100 of the like sums in a Maths topic, then they don't get a mark of 80 per cent and move on. They just haven't finished learning that part yet, and neither have I finished teaching it to them. Their mark is not 80 per cent, it's zero, and so is mine, until they have learnt it and thus proved that I have taught it, 100 per cent of it, and they've mastered it.

Teaching without grading means the student owns his or her work. The 80 like sums in Maths lead him or her, and me, to focus then on the 20, until that 20 is all done. It teaches responsibility to the student, and it requires teachers to actually teach individuals, rather than just deliver lectures and tests. Students don't get a bad mark or mediocre mark or good mark and then move on – they keep learning until they 'get' the whole of the subject. Strong students are driven by their natural enthusiasm, not sidetracked by a mark; weaker students are never discouraged by a grade that indicates they lack mastery – before being told to move on.

We can grade wool, but we need to stop treating our own children as though they're a commodity. They're not. Most of the teachers I meet already know these things. They learned it on the job.

Sean Burke lives in Perth. He has been, variously, a lawyer and a Steiner/Waldorf primary class teacher. He currently teaches English to recent migrants at a state school senior campus, is writing a book on the creative teaching of literacy in primary school, and hosts an alternative education website at www.educationfutures.com.au



Quality teachers
and school leaders

Solving the research puzzle

Carolyn Page
reports on research
into quality teaching and school
leadership for Teaching Australia that
identifies some of the key education policy
issues likely to emerge before the next federal election.

TALK with anyone involved in education and schooling – teachers, school leaders, researchers, parents, students – and you’ll hear one message more common and insistent than any other: when you’re describing quality teaching and school leadership, you can’t easily pin it down since the characteristics of quality teachers and school leaders are not static but dynamic, and the way they work is highly responsive to the context in which they work. It’s not surprising, then, to learn that this is the key finding of research undertaken at the University of Western Sydney (UWS), drawing on an extensive analysis of Australian and international research and on national consultation, commissioned by Teaching Australia.

Called *Teaching and Leading for Quality Australian Schools: A review and synthesis of research-based knowledge*, the UWS research sought to answer three questions: what does the most recent research say about quality teaching and school leadership; what are the gaps in research; and how could an interactive database provide a vehicle for enhancing quality teaching and school leadership, and thereby for enhancing the status of the profession?

With a federal election expected some time between August and next January – the pundits favour October – education policy is likely to be highly contested in the coming months, and the UWS review couldn’t be more timely. By synthesising the research, *Teaching and Leading* will help educators to identify those policy issues where there is strong evidence to support action, and those issues where we still have much to learn. In the course of that synthesis, the report describes current evidence for some of the most significant education questions of our time:

- why does the quality of pre-service teacher education matter
- what is the value of standards for teachers and school leaders
- what is the nature of educational leadership – and can it be learned
- what is the ideal balance between leadership and management in a school principal’s work
- can leadership be usefully distributed within a school community
- what are the pros and cons of a centrally-mandated curriculum
- how can educators best make a difference in challenging schools, and
- how can educators build a culture of information exchange and reflection within a school?

The UWS review found strong support in the research for the importance of initial teacher preparation: initial academic qualifications are a good predictor of quality teaching and have been shown to have a clear impact on students’ outcomes – both social and academic. Teachers with sound pedagogical knowledge were better able to identify, assess and use appropriate curriculum materials, based on their capacity for analytical and creative judgement, and better able to ‘read’ students’ behaviour and cultural context. As the review puts it on page 14, drawing on research by the likes of Linda Darling-Hammond, Terry Lovat and Adrienne Alton-Lee, such teachers ‘interpret student behaviour based on (pedagogical) knowledge so as to be responsive, creative and efficacious’ in facilitating the learning process.

Just as important, in the face of current teacher shortages, quality teacher preparation has an impact on teacher satisfaction and retention. The review reported evidence of adverse consequences when teachers are not prepared, or prepared through short alternative routes. When compared with teachers who had completed ‘carefully designed’ teacher education, teachers with inadequate preparation were found to:

- be less satisfied with their training
- have greater difficulties with planning curriculum, managing their classes and diagnosing student learning needs

At a glance

Teaching and Leading seeks answers to these questions:

- *What is ‘quality’ teaching?*
- *What do quality teaching and school leadership contribute to improving social and academic outcomes for Australian students?*
- *How is quality teaching shaped by the local and wider contexts for schooling?*
- *How can quality teaching be developed, communicated and sustained?*
- *What roles do school leaders play?*
- *How is school leadership evolving and responding to change?*
- *What are the research implications for policy and practice?*

The UWS review reported evidence of adverse consequences when teachers are not prepared, or prepared through short alternative routes.

- lack contextual knowledge or the ability to use culturally-responsive curricular content
- be rated less highly on instructional skills by principals, supervisors and colleagues, and
- leave teaching at a higher-than-average rate.

Keep in mind, however, the research doesn't nail down every issue. While the evidence of a link between quality teaching and pedagogical knowledge is strong, it's less conclusive with respect to a link between content knowledge, the number of qualifications teachers hold and student learning. The balance between university and school-based initial teacher education also remains a matter for debate in the literature. According to an Organisation for Economic Cooperation and Development report, debate continues about the advantages of longer courses and 'the possibilities of more flexible systems' of initial teacher education. The UWS review concludes that more research is needed on these issues, a conclusion endorsed in the bipartisan support of both political parties for the recommendations of the *Top of the Class* report by the House of Representatives Standing Committee on Education and Vocational Training on its inquiry into teacher education, tabled in the Commonwealth Parliament in February. The report recommends that the Commonwealth government 'continue to support the work of Teaching Australia in developing a national system of accreditation' of teacher education courses with 'sufficient resources to allow for the time needed to reach agreement.' The central elements of a national accreditation system are outlined in a national consultation paper, *Australia-wide accreditation of programs for the professional preparation of teachers*, also available on the Teaching Australia website.

Top of the Class goes well beyond pre-service preparation, proposing that renewal of teacher registration should be linked to currency of professional development, as is the case with many professions. The synthesis of research in the UWS review certainly provides strong support for the emphasis in the *Top of the Class* report on 'lifelong and lifewide' learning. Knowledge about content, learners and pedagogy cannot be achieved through initial teacher education courses only; that depends on continuing professional learning. Moreover, according to the UWS review, page 15, research shows that opportunities to engage in 'efficacious continuing professional learning' result in:

- teachers engaging more effectively in their own learning
- increased teacher knowledge, practice and sense of efficacy
- higher levels of student achievement
- improvements in the nature and extent of collaborative collegial work, and
- stronger and better-integrated professional communities of teachers.

While it's clear that continuing professional learning is critical, there's an obvious next question: what kinds of professional development are most effective? The kind, extent and recency of professional learning all make a difference to teacher performance. One-off intensive workshops, for example, seem to give participants less time to understand and experiment with initiatives before implementing them. Professional learning was reported as having an impact on teaching practice and student learning outcomes when:

- it was aligned with the whole-school vision and supported by school leaders
- it was specific to the grade or group of students the teacher taught
- content was integrated with approaches to delivery and understanding of how students learn that content
- it involved active learning and the integration of theory, practice, reflection, feedback and follow-up action

- it was flexible and delivery was teacher-focused, and
- it was collaborative and continuing – allowing space, time and support to develop confidence.

The need for collaboration and professional dialogue is a recurrent theme in the UWS review. As the review points out on page 15, Lynn Fendler's historical study of professional development in 2003 showed that 'reflection undertaken in isolation, such as reflective journal writing, can be an undesirable practice that merely reinforces the status quo, encouraging the reproduction of teachers' existing understandings and pedagogies.' There's plenty of research, on the other hand, to demonstrate the importance of feedback, collaboration and discussion among professional colleagues, and more longterm and active methods for beneficial professional learning.

How can the development of professional standards and certification support this work? One of the dilemmas for teachers and educational leaders is managing professional standards systems for the seemingly contradictory purposes of teacher assessment, usually linked to salary increments, on the one hand and the enhancement of the profession on the other, as the UWS review indicates on page 16. Those professional standards systems that have a positive impact on teacher performance have important features:

- they take innovative approaches to assessing teacher performance
- they use multiple sources of data
- they use specially-trained assessors
- assessment is linked to professional standards and to the ongoing work of quality teachers
- standards cover the collective and collaborative work of the teaching profession, not just the attributes of individuals, and – once again –
- the standards are implemented within schools that operate as professional learning communities.

As Susan Groundwater-Smith and Judyth Sachs have pointed out, however, and as the UWS review notes on page 16, professional standards are not a panacea: 'standards did not solve the problems of dysfunctional school organisation,

One of the dilemmas for teachers and educational leaders is managing professional standards systems for the seemingly contradictory purposes of teacher assessment, usually linked to salary increments, on the one hand and the enhancement of the profession on the other.

How teacher training will be affected by the Melbourne Model.

Announcing the new Master of Teaching at the University of Melbourne

The decision of the Faculty of Education to follow the Melbourne Model and replace all its current undergraduate and graduate professional preparation programs with a two-year Master of Teaching will dramatically change the pre-service teacher education landscape both at the University of Melbourne and around the country.

Stay abreast of these exciting developments by visiting our website or contacting:

Faculty of Education Student Centre
Phone: +61 3 8344 8285

To email us or to request information, visit
<http://edfac-unimelb.custhelp.com>
www.edfac.unimelb.edu.au

dream large



Ask yourself

- Do opportunities exist for you to visit other sites and see research-based teaching in action?
- Are the kinds of professional learning opportunities typically available to you one-off, intensive and workshop-based or continuing, flexible and team-based?
- When it comes to sharing professional information, are there 'blockers' in your educational situation:
 - time?
 - timetable?
 - access to information?
 - access to colleagues and others?

outmoded curricula, inequitable allocation of resources or lack of social supports for children and youth,' they caution. The process of assessment against professional standards, moreover, can add to the already-heavy workloads of teachers, and can have industrial consequences in terms of working conditions, recognition and reward for teacher learning.

On the whole, however, as the UWS review notes on page 17, professional standards 'have been found to contribute to the ongoing professional learning of teachers where this is their primary purpose.' Teachers have reported that the process of going through an application for certification can be a positive learning experience in its own right, leading to useful interaction between teachers, administrators and community members.

The report describes teachers and principals actively negotiating the challenges and dilemmas of their school and wider context. They are working within evolving organisational and leadership paradigms and, as the UWS researchers put it on page 24, practising 'more contingent and pluralistic forms of leadership.' Successful school leaders are selective about the external forces they respond to, and can turn them to their own advantage by using them to drive internal reform. If there's one over-riding message from *Teaching and Leading*, it is that quality teaching and school leadership are driven by the context; they're dynamic, not static. For this reason, the authors argue that future research should focus on practitioners in action. With luck, the wide-ranging synthesis of research in the report will engage teachers and school leaders in reading, and participating in, research about schooling.

But do teachers have time for the facts? Research in Australia, the United States and Great Britain suggests that there are significant barriers to the sharing of knowledge within and between schools – and time is a major factor. A PriceWaterhouseCoopers study in Britain in 2001 concluded that if school and student outcomes are to be improved, 'an essential strand will be to reduce teacher workload.' The recent Australian House of Representative *Top of the Class* report seconded that, recommending a twenty per cent reduction in a beginning teacher's face-to-face teaching load 'to enable time to undertake professional development, reflection, observing other classes and meeting with mentors.'

Time, however, is only part of the problem. Michael Fullan claims that the norms of school culture also intervene: 'Teachers do not have habits of giving and receiving information. Indeed in many cases, the cultures of schools discourage such sharing,' he says. 'I don't want to blow my own horn.' 'Who does she think she is?' 'Others won't be interested in what I am doing.' These, Fullan says, are typical responses by professional educators in schools. In this light, the emphasis in *Top of the Class* on observation and mentoring is important. How might observation and mentoring be enabled? Teaching Australia's *Teaching and Leading* report examines a range of research on 'inter-visitations' between school sites by teachers and principals, reporting on several studies that indicate school leaders and teachers were positive about the possibilities of mentoring and opportunities to visit schools where they could see research-based theories in action. The positive results of these initiatives, however, depend on cooperative organisational arrangements being made by leaders at the school level and at district or regional levels.

The report shows there is a critical role for school leaders in actively building a professional learning community. This should be purposeful: success in building the intellectual and cultural capacity of a school depends on a multi-faceted approach. Key elements include:

- promoting professional dialogue within and outside the school

- putting a strong emphasis on professional development
- providing opportunities for collaboration with external professionals and leaders, and
- providing opportunities to visit other sites and see research-based theories in action.

Top of the Class recognises the limits of our knowledge. It proposes a longitudinal study of the effectiveness of different models of teacher education across Australia ‘following cohorts of teachers from selection into courses, through pre-service preparation, through the first five years of service and through their careers.’ It also recommends support for Teaching Australia to conduct a feasibility study into the establishment of a National Clearing House for Education Research – noting the importance of teacher awareness and of stakeholder input to the development of such a clearing house. It also recommends the creation of an Educational Research Fund along the lines of the National Health and Medical Research Council.

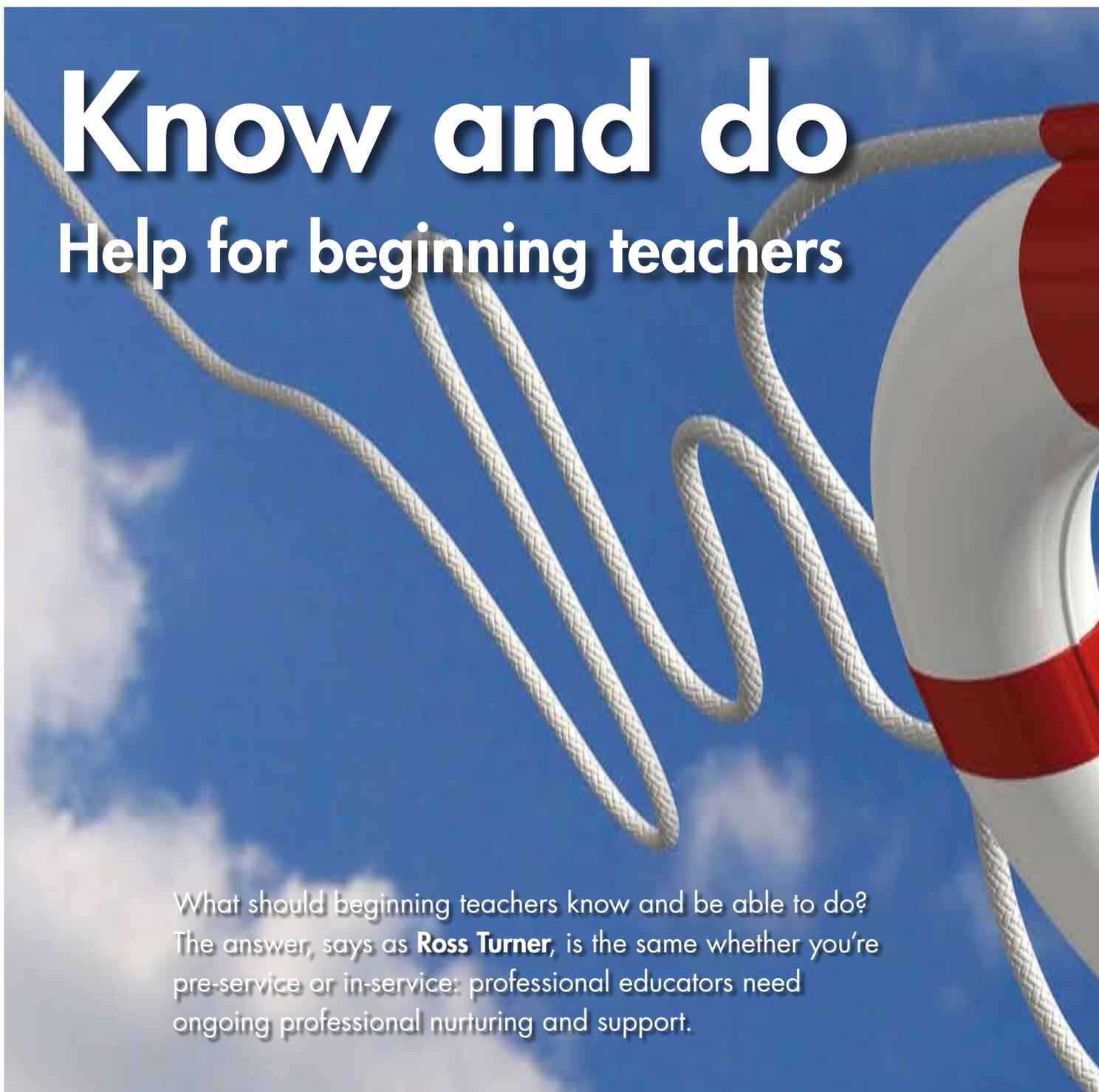
In the meantime, reviews of Australian and international research such as the UWS *Teaching and Leading* review for Teaching Australia are filling a gap – and making research accessible for busy professional educators and school communities.

For the full Teaching and Leading for Quality Australian Schools: A review and synthesis of research-based knowledge by Katina Zammit, Catherine Sinclair, Bronwyn Cole, Michael Singh, Debra Costley, Lois Brown a’Court and Kathy Rushton for Teaching Australia, visit <http://www.teachingaustralia.edu.au/ta/go/home/publications>

For the Top of the Class: Report on the inquiry into teacher education of the House of Representatives Standing Committee on Education and Vocational Training (Luke Hartsuyker, Rod Sawford, Kerry Bartlett, Michael Ferguson, Sharon Bird, Stuart Henry, Ann Corcoran, Kirsten Livermore, David Fawcett and Louise Markus) Inquiry into Teacher Education, visit www.apb.gov.au/house/committee/evt/teachereduc/report.htm

Carolyn Page is a writer commissioned by Teaching Australia – Australian Institute for Teaching and School Leadership. For more information on Teaching Australia go to www.teachingaustralia.edu.au

Deakin



Know and do

Help for beginning teachers

What should beginning teachers know and be able to do? The answer, says as **Ross Turner**, is the same whether you're pre-service or in-service: professional educators need ongoing professional nurturing and support.

MOST professional educators hold strong and often negative views about their pre-service teacher training experiences, and just as anyone who has been a student – and that's everyone – feels suitably qualified to speak definitively about schools, teachers and education in general, teachers feel they can speak definitively about teacher education. As things usually pan out, however, the anecdotal and the definitively evidence-based can sometimes be poles apart. Of course, debates that start from personal experience can be informative, especially when one appreciates different personal experiences, and accepts that one's own experience is not necessarily typical, although such an appreciation and acceptance might not be as common as you think.



The learning of longer-term importance to the best of our teachers takes place in the context of the professional environment provided by schools and the broader professional community within which teachers ply their trade – that is, through ongoing professional development.

Pre-service teacher education courses have an important overarching role: namely, the re-orienting of those aspiring teachers undertaking the pre-service course, to help them make the transition from thinking about schools and teaching from the perspective of the student, to thinking from the perspective of the teacher.

As well as that essential initial re-orientation, what is it that teachers need to know and, as we now say, be able to do? As I see it, there are four broad knowledge categories that are essential for good teachers, alongside a fifth fundamental attitudinal commitment that is also required. Let's look at these in turn.

How do the observed forms of teacher education stack up? Probably not very well, if anecdotal reports of pre-service education courses were a reliable source and if that were the end of the story. Fortunately there is more to it than that.

Content knowledge As they move from pre-service to service, teachers are in the business of acquiring and developing subject-matter knowledge in their teaching area or areas. This knowledge is typically acquired during specialised undergraduate and sometimes post-graduate study; however, it's likely you'll see considerable variation in the depth of subject knowledge among beginning teachers. It's also likely that you'll see some teachers in some schools being pressured to teach in areas outside their expertise. Of course, the best teachers realise the need to update their subject knowledge continuously through reading and further study, and by keeping in touch with the research literature in their fields of interest.

Pedagogical knowledge Subject knowledge is not sufficient – teachers need to know how to teach their subject, and this pedagogical knowledge in their teaching area or areas can be rather difficult to come by. A start should be made during pre-service teacher training, and a good teacher understands that the quest for pedagogic knowledge is a lifelong quest, fed by many sources.

System knowledge Beginning teachers need to acquire and develop their knowledge of the system in which they'll be employed, particularly to understand their rights and obligations in that system, the bureaucratic rules and procedures of the system, the legal and regulatory obligations that operate within and across systems, current government and other policies that affect their work in particular and the work of teachers in general, the authority and power relationships that operate within and around schools, legal and ethical issues to do with the relationships that occur in and around schools, and perhaps most importantly the knowledge that the system and its rules are in a constant state of flux. Beginning teachers need to know that all things change, and that this will be one of the few constants in their life as a teacher.

Professional knowledge New teachers also need to acquire and develop awareness of several broader areas of professional knowledge that can provide a basis for further learning and development. Quality teaching depends on a growing professional knowledge of different methods of assessment and how to apply those methods according to purpose; options for reporting of student performance; issues and principles of curriculum and syllabus development; evaluation methods – of one's own performance, of one's peers, of one's school; issues related to student management, classroom management and school management; technological developments and the educational uses of technology; sources of teaching and learning resources; knowledge of how to establish and maintain contact with relevant professional communities; and familiarity with sources of information about current educational research findings.

Continuous improvement: or good, better and best Finally, new teachers, indeed all teachers, need to understand and accept that there's almost always a better way to do something than the way you're currently doing it or than the way it's currently being done by others around you; and they need to be able to seek such better ways in cooperation with their peers.

So how do the observed forms of teacher education stack up in relation to the goals of re-orienting the prospective teacher, of increasing content knowledge, pedagogic knowledge, system knowledge and professional knowledge, and of fostering a commitment to continuous improvement? Probably not very well, if anecdotal reports of pre-service education courses were a reliable source and if that were the end of the story. Fortunately there is more to it than that. For starters, pre-service courses vary enormously, and in spite of their shortcomings, all of them do provide prospective teachers with useful knowledge and skills. But much more importantly, that's only a start and the learning of longer-term

importance to the best of our teachers takes place in the context of the professional environment provided by schools and the broader professional community within which teachers ply their trade – that is, through ongoing professional development.

Pre-service training can be pretty scary. The survivors who go on to teach have a great deal to learn, much of it by yesterday. It's a very stressful job and teachers frequently feel undervalued and unappreciated. The high turnover rates in the teaching profession may well be an indicator of these difficulties, and of the frequent failure to provide ongoing sources of professional nurture and support. We must find ways to do this better.

One great source of support for Maths teachers, and I'm sure similar sources exist for others too, is the web-based discussion list of the Australian Association of Mathematics Teachers (AAMT). Recent threads in the AAMT list community, which is part of Education Network Australia at www.edna.edu.au, have included the sharing of resources and ideas on a number of specific topics like proof by induction, puzzles and extension activities, and assignments of varying kinds, the different kinds of interactive software currently available, and broader discussion topics such as the 'Maths wars,' and 'universities and teacher education.' This technology is a great boon – teachers can use it when they have the time and inclination, and it's a great way to bring otherwise separated people – including teachers at all levels, academics and researchers – together in a community of common interest.

Ross Turner has been at the Australian Council for Educational Research (ACER) since 2000. He manages the ACER project team that delivers the Program for International Student Assessment for the OECD. He was a secondary school teacher from 1974 until 1987. In 1987 he moved to the Victorian Curriculum and Assessment Board to work on the development of the Victorian Certificate of Education, and remained there in what became the Board of Studies, now the Victorian Curriculum and Assessment Authority, as manager of Research and Evaluation.

Pre-service training can be pretty scary. The survivors who go on to teach have a great deal to learn, much of it by yesterday. It's a very stressful job and teachers frequently feel undervalued and unappreciated. The high turnover rates in the teaching profession may well be an indicator of these difficulties.

STUDY AT HOME

THE FACULTY OF EDUCATION, HUMANITIES, LAW AND THEOLOGY
offers postgraduate courses to improve your qualifications and for professional development that may be studied in your own place and time.

Courses offered are:

MASTER OF EDUCATION
MASTER OF EDUCATION (SPECIAL EDUCATION)
GRADUATE CERTIFICATE IN EDUCATION (SPECIAL EDUCATION)
GRADUATE CERTIFICATE IN EDUCATION (LEADERSHIP & MANAGEMENT)
BACHELOR OF SPECIAL EDUCATION
GRADUATE CERTIFICATE IN EDUCATION (STUDIES OF ASIA)
GRADUATE CERTIFICATE IN TESOL

Study may be undertaken on a full-time or part-time basis and attendance at the University is not required.

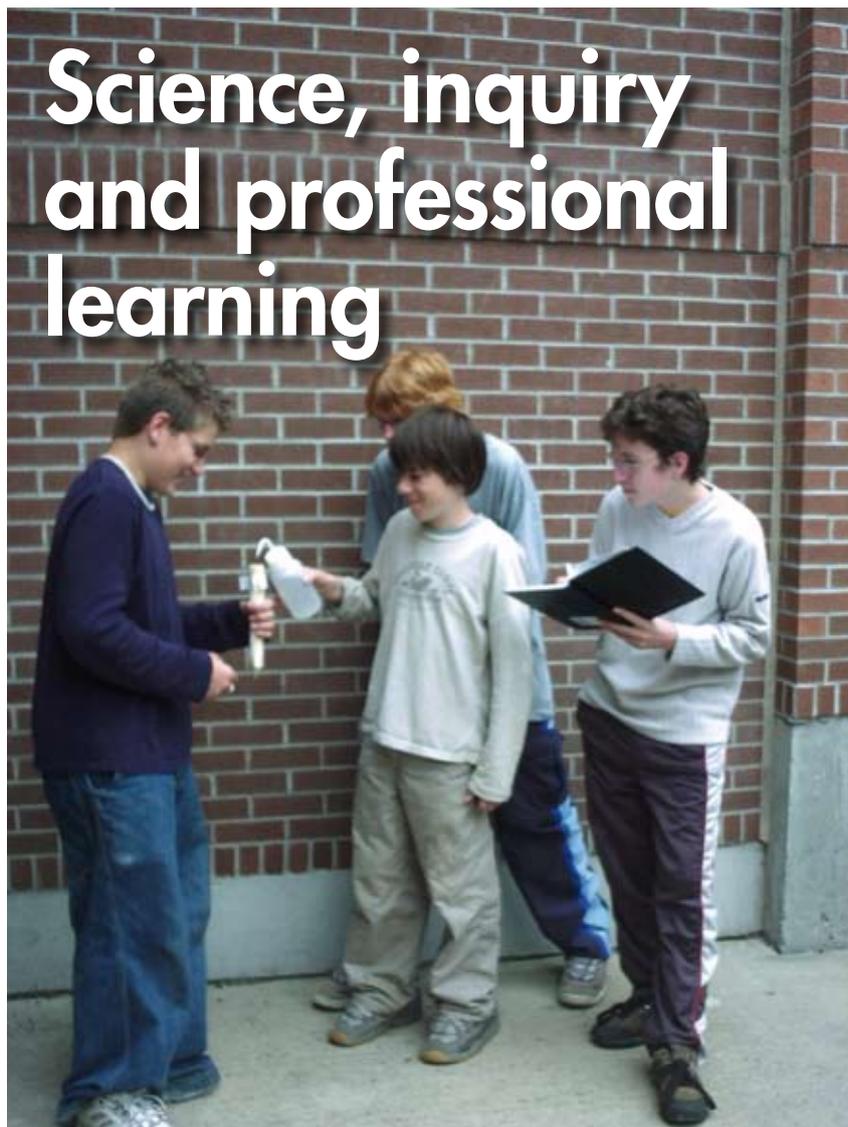
For inquiries contact:

Flexible Delivery Unit
Faculty of EHLT
Flinders University
GPO Box 2100
Adelaide, SA 5001
Tel: (08) 8201 3351
Fax: (08) 8201 3210
Email: seds.flexdel@flinders.edu.au
Website: <http://ehlt.flinders.edu.au/distance>



Science, inquiry and professional learning

Implementing an inquiry-based approach in Science classrooms is a challenge for teachers, but **Doug Jones**, **Wayne Melville** and **Anthony Bartley** have some tips for those who believe that asking questions lies at the heart of teacher professional learning.



INQUIRY, as a teaching method, has become a priority in various renovated Science curricula around the world, which has had a clear flow-on effect: an inquiry-based approach to Science is now influencing teaching methods.

An inquiry-based approach to Science stresses the active engagement of students in their own learning, the development of appropriate strategies to solve personally-relevant problems and the undertaking of these strategies with the aim of producing data that can be analysed and presented to a variety of audiences.

An inquiry-based Science curriculum is founded on three assumptions, as Alan Colburn pointed out in his 2004 article, 'Inquiring scientists want to know.' The first is that students must learn to think scientifically and independently. Secondly, learning to think is a complex skill that involves instruction, practice and feedback. Finally, learning is not a context-free activity; learners must actively struggle with content. Since the 1993 publication of *Science for All Americans* by the American Association for the Advancement of Science and the 1996 publication of the National Science Education Standards by the National Research Council in the United States, the implementation of an inquiry-based curriculum has been a priority in the reform of Science education across much of the industrialised world.

The implementation of an inquiry-based approach in Science classrooms is, however, and for very good reasons a challenge for Science teachers, which is why we

want to share our successful – although sometimes painfully gained – experiences so that the benefits can reach as many students as possible. To do that, we'll draw on our experience at one secondary school, Churchill Collegiate and Vocational Institute, a public school in Thunder Bay, Ontario.

Churchill has developed a program of inquiry that has resulted in fully twenty-five per cent of its 2004 graduating class selecting a post-secondary destination that involves science. For the past five years, the school has won the Most Extensive Participation award at the North West Ontario Regional Science Fair, with four divisional winners being invited to compete at the Canadian National Science Fair. In 2005, the Bi-National Forum on Lake Superior presented the school with an environmental award in recognition of the Environmental Science course which the school offers. Churchill also hosted 200 students and teachers at the Lake Superior Youth Symposium in May 2005 to learn about the Lake's environment and the management of environmental issues. There's also plenty of anecdotal evidence from former students as to the value of being taught using inquiry as they pursue science studies at the undergraduate level. By describing Churchill's program, we seek to show what is required of Science teachers if they are to promote inquiry in their own schools.

THE CHURCHILL PROGRAM

There are four foundational aspects of the Churchill program. First, the program involves not one teacher, but all of them. Secondly, the program involves not one course or grade, but all of them. Thirdly, the principles of scientific inquiry taught in Year Nine are built on in subsequent years. Fourthly, we need to start where our students are at. Students who have been taught and evaluated using traditional strategies have little desire to change. When confronted by inquiry, which will require students to become increasingly responsible for their own learning, there will naturally be resistance – 'Just tell me what I need to know to pass.' Given this pressure, it's understandable why some teachers don't persevere past the initial difficulties, or indeed never start. There's a valuable lesson here for those responsible for professional learning within schools. Teachers need to be provided with the opportunities to express their teaching successes, frustrations and questions – questions about their own teaching and the teaching of their colleagues. We believe that it's precisely the asking of questions and the seeking of answers that is at the heart of teacher professional learning.

The actual inquiry program begins in Year Nine, with the scientific method. 'Oh, I do that,' you say. We know, we've all been there, and have taught scientific method as a series of discrete steps: a question, background research, hypothesis, experimental design, data collection, manipulation and analysis of data, and a conclusion that leads to a new question. Give the students some examples, write the test and they've 'done' the scientific method. Add some cookbook experiments and we've covered all the Science standards expected by education bureaucracies. Well yes, but the reality is that such coverage is superficial and actively discourages the development of broader understandings, critical reasoning and problem solving skills.

In Churchill's program, students are not *told* that scientists design a method to gather data in order to answer their research question. Rather, students *go through the process*, not once but two or three times a semester. Teachers need to spend time modelling, teaching, coaching and practising each step. The context of the work is in actual inquiries with the use of exemplars. A crucial consideration for student improvement is the provision of appropriate formative feedback. In working through these inquiries with their students, teachers demonstrate their expertise and their worth. If the inquiries are authentic and relevant to the curriculum then students and teachers begin to see success build on success. That success, moreover,

AT A GLANCE

Inquiry-based Science involves students:

- *learning to think scientifically and independently*
- *learning to think through a process that involves instruction, practice and feedback, since learning to think is a complex skill*
- *actively struggling with content, since learning is not a context-free activity.*



Ask yourself

- *How or how much is an inquiry-based approach to Science implemented in your educational programs?*
- *What assessment strategies do you use to provide more than a grade?*
- *What evidence do you collect other than a mark or test that demonstrates scientific literacy?*

is cumulative: the learning that happens in Year Nine isn't left in Year Nine; in Year Ten it's revisited, reviewed, extended and repeated. One suggestion we would make to Year Nine and Ten teachers is to form inquiry-learning support groups with other teachers at your year level. The conversations will help you to reflect on your own learning and generate deeper understanding and support.

The accumulated learning as students reach the senior grades then undergoes a process of refinement. They refine their technical report writing and research skills and develop a deeper understanding of and capacity for data manipulation and analysis. Importantly, students become more confident and proficient at communicating and defending their work to peers, teachers and others. Generally, at least two inquiries are completed during each senior-level course.

TEACHER GROWTH, TEACHER PROFICIENCY AND ASSESSMENT CRITERIA

What we have talked about so far is the Churchill program of inquiry. For any program to be successful, however, you need to do more than consider just the program itself. You need to consider three other aspects of teaching and learning – teacher growth, teacher proficiency and assessment criteria – and the consideration needs to be undertaken by teachers and school leaders.

Teacher growth is the growth we see in teachers as individuals and as members of the Science education community. As a group, the teachers at Churchill are committed to continuing their conversations and action research with each other. As new teachers and pre-service teachers arrive, they are mentored along the inquiry continuum. As a group, they know that their motivation to continue stems from observing students becoming more successful at doing Science and understanding science. It's taken us seven years of sustained effort to reach this point. It's also required leadership at both the departmental and administrative levels. The value of having a supportive principal is not to be underestimated. Principals have a role not just in being seen as supportive, but also in the allocation of resources and political support. Schools, as we know, are political places. Teacher growth is, we believe, foundational to, and concomitant with, the development of teacher proficiency.

Teacher proficiency could be said to relate to the more 'technical' aspects of teaching, although we must remember that even the 'technical' has a human facet. Teachers at Churchill have had to become proficient, over time, with the use of instructional strategies that provide for collaborative learning: strategies like jigsaw, think-pair-share, academic controversy; having students use analogy to show they understand a concept; using conferencing as a small group instructional strategy; and using authentic tasks, rich assessment tasks and the development of culminating performances that address both curricular expectations and scientific literacy. This last strategy brings us to a vexing question in Science education – 'What evidence can you show me other than a mark or test that demonstrates scientific literacy?'

At Churchill, a variety of assessment strategies are used to provide more than a grade. These include the provision of assessment criteria up front; the use of exemplars to demonstrate how assessment criteria will be applied; the development of assessment criteria with students; the use of exemplars to develop self-assessment and peer-assessment competency with the assessment tool; the use of exemplars to 'set the bar,' to show students what quality work looks like; the use of assessment formatively to provide for improved performance; and the use of interviews and conferences to provide assessment feedback. Churchill has not had a Year Nine exam for six years now, relying exclusively on culminating performances. In Year Ten, exams have recently become history for applied students, while for academic students there's still an examination and culminating activity. Culminating performances require students to demonstrate

what they know and understand about scientific inquiry. It's worth pointing out, if you read between the lines here, that there's been a significant time gap between the changes to the Year Nine and the Year Ten assessments. Why? Because Science departments and schools that expect, or demand, rapid change run the risk of reform fatigue – with the result that the more things change, the more they'll stay the same.

ALLAYING DOUBTS

We've heard every reason under the sun for not adopting an inquiry-based approach in classrooms. 'The budget is too small.' 'There isn't enough time.' 'I have to get through the curriculum.' 'I already do experiments.' The most strident reaction, however, is from teachers who believe that the adoption of an inquiry-based approach requires them to give up teaching important concept knowledge that the curriculum requires them to cover. On that score, let's be unequivocal: inquiry is but one teaching strategy amongst many teaching strategies. Teachers at Churchill still teach didactically, still grade tests, and still use verification tasks and activities when they are the most appropriate strategies to use. Inquiry is nothing without concept knowledge, just as concept knowledge cannot be created without inquiry. It doesn't matter if you introduce a concept with an inquiry and then fill in the details or set the stage with curricular knowledge and then pursue an inquiry. With experience, you can choose the most appropriate path to take.

The work, which has so far taken seven years, is not complete and never will be. Students coming into a secondary school bring with them new experiences and new challenges. Teachers retire, are transferred or move on. The priorities and policies of school boards and governments change, not always for the right reasons. It's imperative, therefore, that teachers continue to question what is important in the teaching and learning of their subject, and are prepared to share that knowledge with their colleagues and those in positions of authority. Without these critical conversations, a teacher's capacity for professional learning is compromised, and both teaching and learning suffer.

Teacher leadership is crucial if we are to maintain a commitment to inquiry as a teaching strategy, especially in the face of the challenges that will inevitably come our way. As Diane Silva, Belinda Gimbert and James Nolan pointed out in 'Sliding the Doors: Locking and unlocking possibilities for teacher leadership,' leaders understand how schools operate, nurture relationships, encourage professional learning, help their colleagues with change and always have the best interests of their students at heart. In a superficial way, Churchill has been lucky in having had a series of very capable Heads of Science guiding its Science department. In another way, Churchill has made its own luck by developing the leadership potential that exists within its Science department. Fortunately or strategically, or because of both good fortune and good strategy, continuity has been maintained, and the effort required to sustain and improve Science education has become a shared responsibility rather than reliant on one person – and that's what makes Churchill an example for other secondary schools that are looking at implementing an inquiry-based approach in their Science courses.

Doug Jones is Head of Science at Sir Winston Churchill Collegiate and Vocational Institute in Thunder Bay, Ontario, Canada. Drs Wayne Melville and Anthony Bartley are both assistant professors in the Faculty of Education at Lakehead University, Ontario, Canada. Pictures courtesy Sir Winston Churchill Collegiate and Vocational Institute.

For references go to www.acer.edu.au/professionaleducator/references.html

JOIN THE TECHNOLOGY AGE NOW with PICAXE



Developed as a teaching tool, the PICAXE is a low-cost "brain" for almost any project.

Easy to use and understand, teachers and students can be productive within minutes. Safe to use, runs from three AA batteries.

Free software development system and low-cost in-circuit programming.

Variety of hardware, project boards, and kits to suit your application. PC connectivity.

Applications include:

- Datalogging
- Robotics
- Measurement & instruments
- Motor & lighting control
- Farming & agriculture
- Internet server
- Wireless links
- Colour sensing
- Fun games.



Distributed in Australia by

**Microzed Computers
Pty. Limited**

Phone 1300 735 420
Fax 1300 735 421

www.microzed.com.au



An integrated curriculum

Want to develop an approach to teaching and learning across the curriculum? **Helen Billett, Heather Boundy, Mark Chapple, Steve Fraser and Gary Simpson** explain how an extended learning task lets you do just that.

WHEN you teach in a school where the curriculum is shaped by the Victorian Essential Learning Standards (VELS) you need to develop an approach to teaching and learning according to various domains within various strands. What that looks like, for Year Seven students at Woodleigh School on Victoria's Mornington Peninsula, is an integrated approach to science, English and humanities subjects that also addresses library research and information and communication technology (ICT) skills in the form of an extended learning task. Besides meeting the learning needs of students and the teaching objectives of the teacher-librarian, the Science teacher, the English and Humanities teacher, and the ICT teacher, the task addresses the Personal Learning and Thinking Processes domains of the VELS.

While that might look like a tall order, it was actually quite easy to deliver. How? By using an authentic mystery – *Ötzi: the Ice Man* – that students can only really solve by using a range of skills.

Ötzi: the Ice Man is a task that integrates many skills, forms of knowledge and ways of thinking across the curriculum, but it's worth pointing out that the way your school is organised is important when you develop an integrated approach. Woodleigh School moved in 2001 to a core teacher model at Year Seven. Students have a single teacher for English and Humanities, and another teacher for Maths and Science, spending half of their class time each week with just two teachers. A Year Seven core teacher team was established, and the timetable provides time for meetings within teacher allotments, with time after school for whole team meetings and core teacher buddy meetings. Buddy meetings tend to focus on pastoral and behavioural issues. Curriculum team meetings clearly focus on integrating subjects and developing curriculum. This model had been successful in terms of each curriculum area and pastoral care, but little curriculum integration had been attempted before 2006.

The introduction of the VELS and a new leader for the team in 2006 changed all that. We had an opportunity to integrate the two curricula areas and address the Personal Learning domain within the Physical, Personal and Social Learning

strand of the VELS, and the ICT and Thinking Processes domains within the Interdisciplinary Learning strand.

The many professionals involved in this integrated approach came at *Oetzi: the Ice Man* from different starting points and in different ways. These are their stories.

THE TEACHER-LIBRARIAN

The first-term Year Seven Science project was a collaborative unit involving the Science teachers and the teacher-librarian, which served two purposes. First, it enabled teachers to assess the standard of research skills of Year Seven students coming from a range of feeder schools, and introduce them to some of the resources available through the Woodleigh Library. Secondly, it enabled teachers to introduce the concept of information literacy through a specific research assignment aimed at the students' level, and also encourage them to become critical thinkers who know how to find information from a range of sources, and how to select, organise and communicate that information to others.

By integrating the unit with Humanities and changing the focus from *Famous Scientists* to the study of *Oetzi: the Ice Man* we broadened the range of information skills and critical thinking that students must apply in completing the research assignment. We aimed to encourage creative problem solving as the students imagined themselves in the role of a scientist piecing together the story of Oetzi. They also had to use a range of library resources, and had to present their findings to a particular audience using Publisher.

The research path is a long one, and this is just a start for Year Seven students, but we are hoping to extend their research skills from those of mere information gatherers to researchers who can critically analyse and interpret a range of data and pose their own questions in a logical framework. We hope to encourage our students to be inquisitive thinkers, keen to use knowledge in a creative way.

THE MATHS AND SCIENCE TEACHER

Year Seven students commence their secondary Science studies in first term by addressing issues of safety in the classroom and safe laboratory practices before moving on to studying the scientific method and the various disciplines and branches of science. The *Famous Scientist* project was used to look at historical figures from the various disciplines and their important work.

To better integrate with the Humanities, however, we changed the focus so that, instead of historical figures, the project looked at areas of science that could be used to solve real-world problems and looked at the people who currently conduct this work. *Oetzi: the Ice Man* offered both a real-world mystery which could be tackled using scientific skills and ways of thinking, and a subject which the Humanities teachers could use to focus on a broader project about self.

As Science teachers, we started the project with some trepidation, concerned that we would 'lose' our project to the Humanities, a concern that proved to be baseless since our objectives have been fully met and our students have produced work that displays a clear understanding of the work of scientists and a broad range of scientific skills. We've also gained a great deal from sharing this experience with teachers in other faculties, developing stronger relationships that address the pastoral, behavioural and curricula needs of our students and that help us to work together to best address those needs.

Since the project has been an evolutionary one, we've found there are several things we could do to further refine and enrich scientific activities about:

- the properties of water and ice, and how Oetzi could have been preserved

What are the Victorian Essential Learning Standards?

The VELS use three core and interrelated strands for the Prep to Year Ten curriculum to identify various domains that describe the essential knowledge, skills and behaviours students need to prepare for further education, work and life. There are three strands – Physical, Personal and Social Learning; Discipline-based Learning; and Interdisciplinary Learning – that determine domain subsets which in turn determine the standards, organised by dimension, by which student achievement and progress is measured.

- how wind and altitude contribute to general weather conditions and temperatures
- the effects of wind on the environment and, again, how Oetzi could have been preserved
- the materials found preserved and what they tell us about the life of Oetzi and his people, and
- the development of metal objects in the Iron Age and the effect of rusting on these objects.

Such aspects haven't been goals of the first unit of Science in Year Seven in the past, but do link nicely to other units that generally follow throughout the year.

We could also investigate the use of spreadsheets and data loggers during our unit to develop experiments that could be used to explain the work of the various scientists who have worked with Oetzi. This would develop links to further units of study during the year and offer other avenues for student investigations.

Ask yourself

- *Is the structure of your educational institution likely to help or hinder the implementation of an integrated curriculum?*
- *Does your curriculum encourage or inhibit an integrated approach to teaching and learning?*
 - *What would you need to change to make an integrated curriculum possible?*

THE ENGLISH AND HUMANITIES TEACHER

The focus for the English team was on journalism, to develop the skills and knowledge of students so they were able to produce a magazine. That required an understanding of the appropriate writing style for a science magazine, layout and proof reading, with some brushing up on paragraphing. The students brought with them content from their Science and library lessons to craft into the final product. With Year Sevens in Term One, that content was certainly enough to deal with. The students were also taught about publishing in terms of ICT.

Since the various classes completed the assignment at different times we were able to discover the difficulties inherent in the project. By discussing the problems that we'd faced with the project we were able to teach it more successfully, refine the assignment task we gave to the students and produce a more professional final product each time. And, of course, we're doing it much better this year. The first year was a steep learning curve.

THE ICT TEACHER

As part of the introductory English and Humanities unit, the Year Seven students had been introduced to the school network, the school intranet, internet searching and browsing, email and a range of software programs such as Inspiration, PowerPoint, Word and Publisher. Many students were already familiar with some, but not all, of these programs.

The *Oetzi: the Ice Man* project meant that students could take existing and new ICT knowledge and skills and put them into practice far more extensively than in previous years and for a specific purpose. During the course of the unit, students demonstrated that the basic skill sets – such as working with attachments, inserting and manipulating images, and file management to name a few – had become far more embedded than in previous years. That gives them a strong foundation to expand upon their learning in future classes without having to review or re-learn the basic and expected skills.

The extended unit allowed for the introduction of a range of other broad skills using the multimedia capabilities of the software and known student interests. Students were more engaged than in previous years as they could see an interesting finished product that they could take home and show parents. They were keen to learn multimedia skills and also enjoyed the challenge involved in developing an interactive project.

THE OUTCOME

The *Oetzi: the Ice Man* project addresses a number of the Personal Learning and Thinking Processes domains of the VELs. For the Personal Learning domain we created opportunities for students to:

- monitor and describe their progress as learners, identifying their strengths and weaknesses, taking actions to address their weaknesses whilst working in their groups, and reflecting on the information they had collected
- identify, select and use an expanded repertoire of learning strategies to collect and analyse information about a real scientific investigation
- seek and respond to feedback from peers, teachers and other adults, and explain how their ideas have changed as they develop and refine their content knowledge and understanding
- set realistic short-term and long-term learning goals within a variety of tasks, and describe their progress towards achieving these
- manage and complete competing tasks – from short to extended tasks as well as group tasks – within set timeframes, prioritising their available time, utilising appropriate resources and demonstrating motivation
- initiate and undertake some tasks independently within negotiated timeframes
- review the effectiveness of their management of tasks, identifying successes and strategies that would improve outcomes, and
- demonstrate a positive and structured approach to learning, identifying and using effective strategies that assist with study, both at school and at home.

For the Thinking Processes domain we created opportunities for students to:

- use a range of question types and locate and select relevant information from varied sources when undertaking investigations
- use a range of appropriate strategies for reasoning and analysis to evaluate evidence and to compare their own points of view with the views of others
- use a range of discipline-based methodologies, and
- demonstrate creativity in the ways they engage with and explore ideas in a range of contexts.

This was highly successful teaching and learning from the perspective of both teachers and students. By sharing the task we gained a great deal professionally as individual teachers and teams and learned from each other. Our students' learning needs are now met with a much richer, deeper, engaging and authentic task that provides many opportunities for students to develop and practise many skills in a variety of subjects and gain conceptual knowledge across those subject areas. The *Oetzi: the Ice Man* project enabled students to work independently and collaboratively on tasks. We were stunned by the manner in which our students approached and completed the task, and by the quality of the science magazines they prepared.

Our next step, now underway, is to include opportunities for students to meet the reflection, evaluation and metacognition standard of the Thinking Processes domain of the VELs by having them:

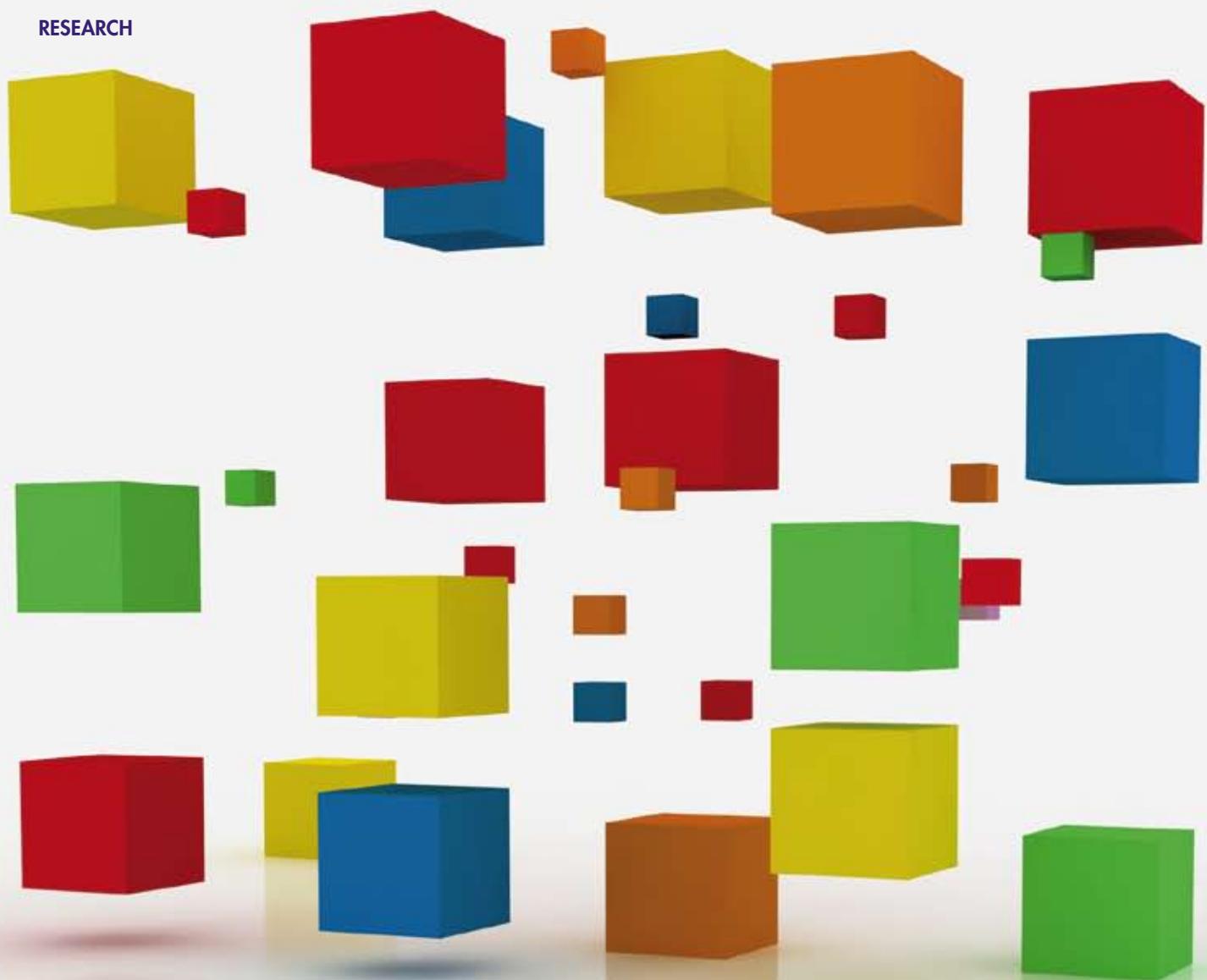
- explain the purpose of a range of thinking tools and use them to assess competing views about how Oetzi came to die where he did
- use specific language to describe their thinking and reflect on their thinking processes during their investigations of the Oetzi mystery
- modify and evaluate their thinking strategies in light of new information, and
- describe and explain changes that may have occurred in their ideas and beliefs about the application of science and the way that many knowledge disciplines are used by a variety of researchers working as a team.

We were stunned by the manner in which our students approached and completed the task, and by the quality of the science magazines they prepared.

Helen Billett is Head of the English Faculty and an English and Humanities core teacher at Year Seven; Heather Boundy is the Director of Library Services; Stephen Fraser is the Director of Information and Communication Technology; and Gary Simpson is the Coordinator of Curriculum Initiatives – Independent Learning, all at Woodleigh School on Victoria's Mornington Peninsula. Mark Chapple is an ICT consultant who is employed to work with teachers to incorporate ICT in their teaching at Woodleigh School.

LINKS:

For more on the Victorian Essential Learnings Standards, visit <http://vels.vcaa.vic.edu.au/links/standards.html> or <http://vels.vcaa.vic.edu.au/essential/index.html>



Building blocks for a critical curriculum

Outcomes-based education and the International Baccalaureate

Is the International Baccalaureate Diploma Program moving towards a critical curriculum? **Mark Corbett** has some answers.

CURRICULUM and assessment have become hot topics in Australia since various states have implemented, or tried to implement, different versions of outcomes-based education (OBE) of one shape or another. One of the more curious aspects of the fallout following OBE-type curriculum reforms is that some commentators and politicians have howled down OBE at the same time they've endorsed the International Baccalaureate (IB) Diploma Program.

That's strange because the IB clearly exhibits characteristics of OBE. Overall learning outcomes are set initially, and all other curriculum matters are subsequently designed to ensure that students achieve those outcomes. Moreover, the IB aims to provide educators and students with opportunities for critical self-reflective teaching and learning. The IB appears, in other words, to be a form of OBE that's moving towards a critical curriculum.

Before examining the IB as a critical curriculum, however, it's worth asking 'What is this thing called OBE?' As Roy Killen, an associate professor in the Faculty of Education at the University of Newcastle, explained in an unpublished paper in 2000, paraphrasing the so-called father of OBE, William Spady, an OBE approach starts with a clear picture of what is important for students to be able to do, then organises the curriculum, instruction and assessment to make sure learning happens. From an IB perspective, this starts by establishing a set of broad knowledge, skill and attitude attributes towards which all students should converge. Known as the IB learner profile, this includes broad, longterm value, culture and ethos outcomes. For example, according to the 2006 *IB learner profile booklet*, 'IB learners strive to be...thinkers. They exercise initiative in applying thinking skills critically and creatively to recognise and approach complex problems, and make reasoned ethical decisions.' Using this focus, specific subject aims are then determined, such as these from the experimental sciences, also from the *IB learner profile booklet*: 'experimental science courses should aim to...develop an ability to analyse, evaluate and synthesise scientific information.' Objectives are then established to reflect the assessment of the aims: 'students should achieve the following objectives: apply and use: (a) scientific facts and concepts; (b) scientific methods and techniques; (c) scientific terminology to communicate effectively; (d) appropriate methods to present scientific information.'

At the same time, the subject content to be mastered by students if they are to reach subject objectives is developed. Occasionally, time spent on specific types of teaching and learning activities is prescribed, such as in experimental sciences, where forty hours of practical laboratory work must be completed.

Next, the types of assessment components to be used to measure student achievement are identified. OBE places importance on students knowing what they should know and how it will be measured, so it is almost exclusively concerned with criteria-based assessment, although, as Roy Killen pointed out in his 2000 paper, 'OBE does emphasise the importance of criterion-referenced assessment in which the intended outcomes provide benchmarks against which student achievement can be judged.'

With IB, different criteria are developed for different levels of achievement for different assessment tasks, and even different components of a particular assessment task, such as the final part of an examination essay in, say, Economics, which should, according to the 2003 *Diploma program Economics guide*, demonstrate 'relevant concepts developed in reasonable depth...(and) effective evaluation, supported by appropriate evidence or theory.'

Given the OBE framework of the IB, there are some critical questions that naturally follow: who decides on the outcomes and, buried within this, which outcomes count? These are not superficial questions as to whether one outcome

AT A GLANCE

- *The International Baccalaureate Diploma Program is a version of outcomes-based education.*
- *International Baccalaureate Diploma Program subjects include assessment tasks with a goal-based orientation.*
- *Excessive technical and hermeneutic knowledge content in some International Baccalaureate Diploma Program subjects significantly hinders critical self-reflective teaching and learning.*

One of the common questions of an OBE approach asks how, or by whom, are the outcomes established? It's a justified concern.

The established outcomes have the potential to totally determine the learning experiences students can construct, and those who decide them thus wield enormous social control.

or another is preferred. They're fundamental questions about education and social control. They can be resolved into one simpler question: is the IB Diploma a critical curriculum?

The main thrust of critical educational theory, as Klaus Mollenhauer put it back in 1968, quoted in Jan Masschelein's 2004 article, 'How to conceive of critical educational theory today?' is 'to produce in the coming generation the potential for social change and emancipation.' Education, in other words, is an instrument through which society can be changed. It's a view most fully articulated by Jürgen Habermas, who suggested that if people were to be truly free, they needed to be liberated from the chains of their own ignorance. As Stephen Brookfield so nicely put it in his 2005 article, 'Learning democratic reason: The adult education project of Jürgen Habermas,' 'If we could understand the conditions necessary for people to participate in full, free, and equal discourse, Habermas argued, then we would have a theory – the theory of communicative action – that would guide the operation of democracy.'

Habermas suggested that any area of study exhibits three cognitive interests. His first level of cognitive interest is 'empirical-analytic' knowledge. This includes non-negotiable standards upon which there is general agreement, requiring little interpretation. At the second level is 'historical-hermeneutic' knowledge, mainly concerned with interpretations and ways in which various factors are interrelated. Habermas's third level is 'critical' or 'self-reflective' knowledge, mainly concerned with critical reflection on subject matter and critical reflection of the learner in dialogue. In Habermas's view, as Jan Masschelein explains it, 'the role of both theory and practice consisted mainly in raising the consciousness of the irrational motives and dependencies that limit and restrict the rationality and freedom of individuals, which prevents them from seeing and defining their own true motives and aims and thus alienates them from their true humanity. Critical self-reflection in dialogue would produce emancipation that is, the *bildung* (or education) of self-confident, self-reflective, autonomous and rational subjects.'

Coming back to the IB, one of the common questions of an OBE approach asks how, or by whom, are the outcomes established? It's a justified concern. The established outcomes have the potential to totally determine the learning experiences students can construct, and those who decide them thus wield enormous social control. That was clearly demonstrated when OBE was introduced into Californian schools, leading to a battle between various groups trying to capture the means to control the consciousness of people, and especially the next generation, through education. As Basil Bernstein explained in an interview in 1999 with Joseph Solomon, quoted by Christine Sleeter and Jamy Stillman but originally published as 'Pedagogy, identity and the construction of a theory of symbolic control,' 'The pedagogic device, the condition for the materialising of symbolic control, is the object of a struggle for domination, for the group who appropriates the device has access to a ruler and distributor of consciousness, identity and desire.'

What that means, put simply, is that outcomes have the potential easily to prevent or at least inhibit students from pursuing a dialogue of critical self-reflection and emancipation, guiding them as captives of a system determined to use them for other purposes.

Within the IB, the learner profile, subject aims, objectives, content, some teaching time, and summative criteria-based assessments are all mandated by the IB Organisation (IBO). It's a system in which teachers seem to have little control, and students even less control, of their educational landscape. Compliance to outcomes is mainly enforced through international standardised examinations that account for up to eighty per cent of assessed material, and through moderation of

the remaining internally-assessed components. Add to this the extensive content that must be covered in certain subjects, and the curriculum might be considered highly prescriptive and restrictive.

The way in which each of the levels of curriculum construction I've just outlined can be interpreted, however, allows significant freedom for educators and students to negotiate their way through a critical curriculum, and more importantly the way in which outcomes and criteria are constructed allows for the development of the critical type of knowledge described by Habermas.

How? The first answer comes out of that earlier question: how, or by whom, are the outcomes established? or, as Terry Lovat and DL Smith more precisely put it in *Curriculum: Action on reflection*, 'What reference points will we use to identify the relevant outcomes?' To use the terminology of the IBO, in its mission statement as articulated in the 2006 *IB learner profile booklet*, those reference points are 'independent critical and creative thinking,' 'internationalism' and 'active, responsible citizenship,' aims that certainly complement a critical curriculum.

Beyond that, teachers and students must still determine classroom activities, notwithstanding time constraints, and to do this successfully must critically evaluate what they will do. Furthermore, the imperative that teachers make outcomes, assessment and criteria clear to students from the outset involves both teachers and students automatically in the construction of the learning environment. That, at least in terms of the construct of OBE, provides opportunities for critical reflection by both teachers and students. As Lovat and Smith explain, 'Such an approach forces teachers to, first, think clearly about the teaching/learning processes that they are going to use, that is, unpack their head, and, second, make explicit to students the outcomes, how these will be assessed and the criteria by which the assessment will be determined. In this manner, the student becomes a partner in the process of assessment. To achieve this step effectively requires (a) critically reflective approach to curriculum work.'

Closer scrutiny of the IB learner profile, however, reveals that there is, at least in theory, recognition of the need for critical, self-reflective learning. As the 2006 *IB learner profile booklet* puts it, 'IB learners strive to be reflective. They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.'

Furthermore, although evidence of the existence of this reflective aspect is required in some tasks, IB curriculum documents recognise that some types of learning cannot be effectively evaluated. The wording that introduces subject objectives is revealing here, indicating that some parts of course aims will not be assessed. The 2001 *Diploma program Biology guide*, for example, recognises that 'The objectives for all group 4 subjects reflect those parts of the aims that will be assessed.' To indicate that parts of the aims will be assessed is to imply that parts of the aims will not be assessed, which is to say that teachers and students are working with a critical curriculum which cannot be effectively evaluated, let alone be measured, by anyone other than the learner.

Thus, the IB curriculum and assessment structure not only recognises that students should be self-reflective critical learners, but also allows some room for this to happen in a way 'uncontrolled,' or not wholly controlled, by assessment.

The method for establishing criteria allows further leverage for student progress towards critical knowledge and thereby emancipation. The IB Diploma assessment criteria, generally, follow Bloom's taxonomy, which proposes three domains in the cognitive, affective and psychomotor areas of educational activities as Benjamin



BOYS IN SCHOOLS

Would you like to know how to fully engage boys in classroom learning?

Develop their self-confidence, self-control and self-esteem?

We offer >

- Experience as 'Success for Boys' presenters
- Proven ability to act as 'critical friends' for action learning projects
- Academic partners to assist in evaluation of school based projects
- Workshops tailored to the needs of your staff

PROFESSIONAL DEVELOPMENT

We offer the **Graduate Certificate in Educational Studies** and **Master of Educational Studies – Educating Boys**. The courses offer up-to-date research and classroom-based action learning projects for teachers wishing to deepen their knowledge and improve practices related to boys' education.

INFORMATION

For information about the courses contact:

Faculty of Education and Arts

T +61 2 4921 5314

F +61 2 4921 6997

www.newcastle.edu.au/study/courseinfo/postgrade/index.html

For information about the programs or resources please contact:

Boys in Schools program

The University of Newcastle

Callaghan NSW 2308

T +61 2 4921 8739

F +61 2 4921 8686

[health-boysinschools@](mailto:health-boysinschools@newcastle.edu.au)

newcastle.edu.au



The ideas of students, their perceptions, perspectives and the ways they construct tasks, take on a central role, so they are not captive to the educational system within which they learn.

Bloom and his colleagues identified them back in 1956. IB assessment criteria often work through lower cognitive skills up to higher-order skills such as synthesis and evaluation. We also see criteria representing the interests of the affective and psychomotor domains as outlined below in points 4 and 5 respectively, quoted from the 2001 *Diploma program Biology guide* for experimental sciences.

‘Students will be expected to:

4. demonstrate the personal skills of cooperation, perseverance and responsibility appropriate for effective scientific investigation and problem solving;

5. demonstrate the manipulative skills necessary to carry out scientific investigations with precision and safety.’

These skills in different domains reflect different levels of cognitive interest, meaning that different levels of cognitive interest might be reflected in assessment criteria. For example, in the IB Theory of Knowledge essay, approximately 12.5 per cent of the mark is awarded for fulfilling basic standards in each of the use of knowledge terms, analysis, structure and factual accuracy. Hence, up to fifty per cent is awarded for ‘empirical-analytic’ knowledge. A further twenty per cent is available for the application of knowledge issues to real-world examples, illustrating the relative importance of ‘historical-hermeneutic’ knowledge. Finally, thirty per cent is available for the use of knowledge, analysis and examples which reflect the ‘voice,’ ‘thinking’ and ‘experience’ of the candidate, a reflection of the importance of ‘critical’ or ‘self-reflective’ knowledge, as it’s put in the 1999 *Diploma program Theory of Knowledge guide*. This pattern is apparent in assessment tasks for other subjects. Thus, within an OBE curriculum structure, and a highly prescriptive one at that, there’s still room for the emancipation of students by using criteria-based referencing, giving emphasis to individual reflection and students’ adaptation of technical and hermeneutic knowledge to their real world. Some call this ‘authentic assessment.’

Notwithstanding the OBE structure of the IB curriculum, many assessment components are rooted in the traditions of goal-based assessment. In fact, every IB subject includes assessment tasks with a goal-based orientation. Goal-based assessment occurs when the development of outcomes for tasks are decided upon after a process of collective decision-making between teacher and student. Consider, for example, the World Literature Assignment for First Language Literature courses, which is typical of goal-based assessment tasks across the IB. Although the criteria and structure are controlled by the IBO, teachers only give process guidance and feedback, so the topic and avenue of investigation are largely determined by the student in negotiation with the teacher. The teacher acts as facilitator and students have significant control over what and how they wish to proceed. The same applies to the Extended Essay, Historical Investigation, Second Language Oral Examinations and Written Tasks, Economics Portfolio, Mathematical and Experimental Science Investigation Portfolios, and the Visual Arts Exhibition. Hence, the ideas of students, their perceptions, perspectives and the ways they construct tasks, take on a central role, so they are not captive to the educational system within which they learn. As Lovat and Smith have pointed out, ‘goal-based assessment provides the potential to act as a liberating process for student and teacher, to make both of them more critically aware of the teaching/learning process.’

Clearly, the IB curriculum and assessment do offer, at least in theory, opportunities for critical reflection on subject matter, and for critical reflection of the learner in dialogue, but do teachers perceive these opportunities, do they believe that such opportunities are afforded, and are they realised? To find out, I interviewed teachers at the German International School Sydney (GISS) from all subject areas.

Without exception, all teachers believe IB assessment tasks afford students opportunities for critical self-reflective learning. A Mathematics teacher, for example, explained how he worked in collaboration with students over an extended period on a calculus problem involving the shape of the Sydney Harbour Bridge, and how students slowly, upon reflection, began to re-evaluate their approaches to solving the problem.

What about externally-dictated written examinations? Teachers say opportunities do exist in some components for critical self-reflection, although most concede that the main purpose of examinations is control and measurement.

An interesting perspective was offered by a Visual Arts teacher. In Visual Arts, a visiting examiner is led by students through their final exhibition and looks through their process work books. For the Visual Arts teacher this is central to the course since it allows students to express their perspectives on how they constructed their work, an approach that encapsulates critical, self-reflective learning in dialogue. Moreover, the human face of the examiner, as the Visual Arts teacher explained it, allows students to truly own their product, and certainly enables a more reliable and valid evaluation process.

What about course content? Does it allow opportunities for critical self-reflective teaching and learning on a day-to-day basis? Second Language teachers of English, German and French effused enthusiastically about the opportunities for critical self-reflection, one commenting that, 'The whole course is about that. That's all we do.' A History teacher believed he could cover course content efficiently enough to allow space for critical self-reflection, although he suspected this was because he taught most of the same content, albeit at a more superficial level, to the same students in junior secondary.

Experimental Science, Mathematics and First Language and Literature teachers, however, say courses are so packed with content there is little room for critical self-reflective teaching and learning on a day-to-day basis. One Literature teacher complained that she barely had time to read all fifteen works on the course. There is obviously a strong feeling that the dominance of technical and hermeneutic knowledge content in some courses severely restricts critical self-reflective learning.

Theoretical and to a lesser extent practical opportunities for critical self-reflective teaching and learning do exist within the OBE construct of the IB. These opportunities arise:

- because the reference points used to identify the IB outcomes complement a critical curriculum
- because teachers and students still need to construct their classroom activities
- because the outcomes, assessment and criteria must be made clear to students from the outset
- because of the IB learner profile
- because some subject aims are free from the controls of measurement
- because the different levels of cognitive interest might be reflected in assessment criteria and tasks, and
- because of the significant influence of goals-based assessment on many IB assessment tasks.

Many teachers recognise and realise these opportunities, especially through assessment tasks, but some believe that excessive technical and hermeneutic knowledge content in some subjects significantly hinders critical self-reflective teaching and learning on a day-to-day basis.

It seems that IB curriculum and assessment structures are moving towards, but are not yet a complete realisation of, a critical curriculum.

The IB curriculum and assessment do offer, at least in theory, opportunities for critical reflection on subject matter, and for critical reflection of the learner in dialogue, but are such opportunities actually realised?

Mark Corbett is the IB Coordinator at German International School Sydney.

For references go to www.acer.edu.au/professionaleducator/references.html



Pathways and barriers

Indigenous schooling and VET

Katrina Alford and **Richard James** report on their research into vocational education opportunities for young Indigenous people in Victoria's Goulburn Valley and Shepparton.

THE Shepparton Indigenous community, the largest in Victoria outside Melbourne, accounting for 2.7 per cent of the region's population, according to census data, is a non-traditional community that speaks English, although Aboriginal English is part of the language mix.

SCHOOL EDUCATION

At most, forty per cent of Indigenous young people in the compulsory secondary school years – Years Seven to Ten – may be enrolled in the region's schools. More than a third leave the school system either after primary school or in very early secondary school. The average point for Indigenous male and female students leaving school for the period 1999 to 2004 was before the end of Year Eight. By Year Twelve, 23.8 per cent of the Year Seven cohort were still at school. Retention rates to Year Twelve appear to be falling, comparing unfavourably with those for the total regional youth population, where the rate was 69.8 per cent in 2003, and for the whole of Victoria, where it was 85.8 per cent in 2003. They're also significantly below national average Indigenous school retention rates, which were 35.7 per cent in 2001 and 39.1 per cent in 2003.

Respondents in our research identified a number of school-based issues that contribute to the low participation and retention rates, including culturally biased curricula, the 'white middle class' language of teachers, the lack of Koori educators in schools, and the absence of a general affirmation of Indigenous culture and identity.

Koori children bring a language mix of Indigenous words, Aboriginal English and Standard English to school, but literacy programs and texts recognise only Standard English. 'Koori English' is not used as a literacy teaching tool. One result is a growing gap in literacy levels between Koori and non-Koori students in the region and in reading abilities in particular.

Vocational education and training (VET) opportunities appear to be provided too late to engage students since, by the time these become evident, many Indigenous students have already disengaged from formal education and training. It would appear, based on enrolment evidence, that the former technical secondary schools more successfully engaged Koori students than do current mainstream state schools. The indirect financial loss to the regional Koori community from early school leaving is estimated to be \$2.6 million a year in government education funding.

FURTHER EDUCATION AND TRAINING

The proportion of Indigenous people in the Goulburn Valley who have post-school qualifications or participate in accredited training is lower than the state Indigenous average. Areas of study appear to be linked more with anticipated future employment in Koori organisations, such as the Rumbalara Cooperative, than with mainstream employment. Many Indigenous early school leavers in the region, particularly males, move into the post-school VET sector through attendance at technical and further education (TAFE) institutes. This provides a stepping stone to VET pathways and potentially into employment. There are, however, a number of barriers to successful course completion and skilled employment, including: student issues, such as low levels of literacy and numeracy, and low motivation; education and training issues, including culturally-inappropriate content and teaching methods; lack of Indigenous staff and space, and lack of VET and pastoral support; poorly developed Indigenous links with industry and employers; family and community influences, including lack of education, experience and support for students; and apparent fear of mainstream work experience and placements, and racism in and beyond school or TAFE.

EMPLOYMENT

In the Goulburn Valley, the Indigenous labour force participation rate is 50.5 per cent, which is low when compared with the national rural Indigenous rate of 58.4 per cent and extremely low compared with the rural non-Indigenous rate of 76.1 per cent. (ABS 2001) Employment in the Community Development Employment Projects scheme accounts for a startling two-thirds of all Indigenous employment in the Goulburn Valley. Indigenous job seekers account for 8.4 per cent of registrations at Centrelink Goulburn Valley, but for only 3.5 per cent of job placements. About half are younger than twenty-four years, compared with a third of non-Indigenous placements. Very few Indigenous placements involve either skills or interaction with the broader community, for example, in retail, hospitality or office work.

OUTCOMES AND AREAS FOR IMPROVEMENT

There are limited tangible gains evident to date in either skills or employment when young people move from schools to the VET sector. Indigenous students lack effective monitoring, guidance or mentoring. This appears to be related to insufficient resources and a jurisdictional vacuum, since no particular agency is responsible for facilitating meaningful, sustainable VET pathways for Koori students.

The system needs better coordination and more resources to ensure that reluctant students are supported culturally, emotionally, educationally and vocationally to enable them to become committed and continuing students and, subsequently, workers. The need for individual case and pathway management and support of Koori students is evident. Greater emphasis on Koori culture and Koori language in curriculum and the education and training context overall may be fundamental prerequisites for improving the levels of achievement of Indigenous students.

The Indigenous community of the Goulburn Valley deserves better educational and employment outcomes. Clearly, education attainment is a key to the community's long-term development, and VET that leads to employment must be a major component. Strategies that might boost VET participation include: an entitlement fund to twelve years of education to offer alternatives to young Kooris who leave school early; intensive investment in early literacy and numeracy programs; highly coordinated individual case management; and the greater involvement of the community in the planning and leadership of educational programs.

At a glance

Strategies to boost successful vocational education and training participation:

- *an education entitlement fund*
- *stronger early literacy and numeracy programs*
- *individual case management, and*
- *greater involvement of the community in planning education programs.*

Katrina Alford and Richard James from the Centre for the Study of Higher Education at the University of Melbourne are the authors of Pathways and barriers: Indigenous schooling and vocational education and training participation in the Goulburn Valley region, a research report funded via a grant under the National Vocational Education and Training Research and Evaluation Program coordinated and managed by the National Centre for Vocational Education Research on behalf of the Commonwealth, state and territory governments, with funding provided through the Department of Education, Science and Training.

For the full report and references, visit www.ncver.edu.au/publications/1734.html



New ministers,
new departmental
heads, even new
headquarters:
it's been a whirl
on the education
merry-go-round, where
everything revolves
around a stable and
unchanging axis –
agreeing to disagree.
Steve Holden reports.

National perspective

WHEN Carmel Tebbutt stepped down as New South Wales Education Minister following the state election that saw the return of the Iemma government in March, she was probably unaware of the game of musical chairs that was to follow. Her ministerial replacement, John Della Bosca, took swift action, removing the NSW Director General of Education, Andrew Cappie-Wood, and replacing him with the former head of the NSW Department of Commerce, Michael Coutts-Trotter – all this after NSW Premier Morris Iemma offered a cabinet position to, and quickly withdrew it from, Paul Gibson.

The Coutts-Trotter appointment was immediately questioned, either on the basis that the new DG had served almost three years' jail in the 1980s for trafficking heroin or because his background wasn't in education. It's worth asking why Coutts-Trotter's conviction twenty-three years ago was an issue in 2007, but appeared not to have been an issue when he was appointed to head up the Department of Commerce in 2004. The new DG told ABC Radio, 'My life shows that redemption is possible, that a terrible and criminal mistake, serious as it was, can be paid for and you can move on from it.' Coutts-Trotter appeared to stand alone in pointing out that criminal sentencing is about rehabilitation, not retribution – and since rehabilitation is by any definition an educational matter, that suggests he may well be qualified for the job.

Della Bosca then leapt into the federal-state fray, taking his Commonwealth counterpart, Julie Bishop, to task for her proposal for a national system of performance-based pay before Australia's education ministers met for last month's two-day meeting of the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) in Darwin. Writing in the *Sydney Morning Herald*, the new minister said Bishop's proposal was 'simplistic, ill-defined and unworkable.' Bishop hit back in the *Adelaide Advertiser*, writing that, 'Many teachers report frustration that no matter how effective or how highly qualified they become they are unable to obtain higher rates of pay. Many of our best are leaving the profession.'

So there.

And so to Darwin, where a national curriculum, national literacy and numeracy tests, and hire and fire powers for state school principals were also on the MCEETYA agenda.

Imagine the scene: day one, a warmish thirty-two degrees, humidity forty-eight per cent, but in the air-conditioned meeting room it's getting hotter as the Labor ministers reject Bishop's proposal that school-by-school data from national literacy and numeracy tests in Years Three, Five and Seven be provided to the Commonwealth. The states and territories fire back, having already agreed to use common literacy and numeracy tests and to add a Year Nine test, asking for a one-off payment of \$35 million to cover the total cost. Bishop refuses. She estimates the extra Year Nine tests will add \$6 million to the bill and offers to pay half.

Stalemate.

Day two, a warmish thirty-two degrees, humidity forty-eight per cent, and it's getting even hotter as the ministers grapple with performance-based pay, principal autonomy and a national curriculum. The day two result? Predictably, a no, a no and a yes – it would've been hard to find a bookmaker. On that yes to a national curriculum, by the way, Victoria's acting Education Minister Jacinta Allan said Bishop had supported the states' and territories' proposal. Bishop, for her part, said, the states and territories had agreed to the Commonwealth government's plan

for greater national consistency in school curriculum, testing and reporting. ‘The important thing is that we have got a commitment to progress the plan that has huge community support for a nationally consistent curriculum,’ she told AAP.

It wasn’t all face saving: the ministers did consider a cooperative approach to higher education reform to create a national accreditation agency and consistent financial and risk management auditing procedures for universities, as well as changes to the governance model for universities. Queensland Education Minister Rod Welford told the *Australian* he supported greater collaboration between the states and Commonwealth in higher education. ‘It’s nice to at last see the Commonwealth prepared to collaborate on something,’ Welford said, but that was before the MCEETYA meeting.

There you have it, federation in action: and now you know why they have their own drivers instead of waiting in line at a cab rank after the meeting.

Speaking of cabs, the Australasian Forum of Teacher Registration and Accreditation Authorities, which looks a bit like one of those maxi-cabs filled with the nation’s various teacher registration boards, colleges and institutes, approved a draft framework in March that would establish nationally-aligned mandatory requirements that education courses would have to meet if their graduates were to register to teach. The draft framework establishes common yardsticks for teaching qualifications, including a minimum four-year degree, English language and numeracy standards, a minimum practicum and minimum content standards in Maths and Science. The national alignment would allow graduate teachers to work anywhere in Australia without having to obtain a separate state or territory registration.

In brief

ENROL TO VOTE

‘Enrol to Vote Week,’ an initiative of the Australian Electoral Commission, which runs from 28 May to 1 June, aims to get young people to enrol ahead of the federal election expected later this year. Amendments to the Commonwealth Electoral Act last December mean new voters only have three days after a federal election is called in which to enrol. Visit www.enroltovoteweek.com.au to register your school or www.aec.gov.au to help individual students to enrol.

NATIONAL WINNERS

The Commonwealth Minister for Education, Science and Training, Julie Bishop, announced the winners in this year’s National Awards for Quality Schooling in Canberra in March. The seven major award winners are: Danielle Radley from Miami State High School, Queensland, in the Excellence by a Teacher category; Tanya Taylor-Cox from Thebarton Senior College, South Australia, in the Excellence by a Beginning Teacher category; Viviana Golding from Highton Primary School, Victoria, in the Excellence in Teacher Leadership category; Genia Janover from Bialik College, Melbourne, in the Excellence by a Principal category; and Kerryn de Jonge from Taroom State School, Queensland, in the Excellence by a Support Staff Member category. The recipient of the inaugural Medal of Distinction for Excellence in School Improvement was Seaford 6-12 School, SA.

LINKS: for the list of the fifty-seven highly commended winners, go to www.acer.edu.au/professionaleducator/references.html

IN YOUR STATE

TASMANIA

Education bureaucrats from head office in Tasmania are going back to school. The entire bureaucracy will be relocated to a school, yet to be chosen, when the current head office in Hobart is sold. Even Department Secretary John Smyth will go back to school. Around 200 curriculum staff have already been shifted into schools, with the rest expected to join them in the next month or so. Tasmania’s Education Minister David Bartlett told Hobart’s Mercury the move will save up to \$1 million in annual rent when staff move out of leased city offices. Bartlett could not say whether money from the sale would be spent on education. ‘That’s a decision for the Treasurer,’ he said.

VICTORIA

It was hard to avoid media coverage about Xavier College, Melbourne, last month when a series of drug and bullying stories made the front page of Melbourne’s dailies. The first, about the alleged schoolyard sale of marijuana, snowballed when the media reported that the school had not reported the incident to police. The second followed within days when two instances of mobile phone footage surfaced of schoolyard bullying, taken last year. The school took action in all three incidents, suspending the students involved and expelling the student who allegedly sold marijuana, while police launched separate investigations into the drugs and bullying incidents.

Make sure In Brief really covers what’s happening in your region. Email editor.profeducator@acer.edu.au

Empty schoolyards

The unhealthy state of play



Whether or not you believe there's an obesity crisis or that our students are turning into couch potatoes, changes are taking place in our nation's school playgrounds which are reducing opportunities for active play and that's unhealthy for our children, says **John Evans.**

WE are, it seems, in the midst of an obesity crisis, if we're to believe the popular press, and we face dire consequences if we don't act quickly to deal with it: the 'battle of the bulge,' apparently, is one of the biggest challenges facing the health and wellbeing of our nation's youth. Last year in these pages, Shane Pill argued there's an abundance of evidence to show that the combination of poor diet and physical inactivity presents serious problems for an increasing number of children. As he put it, on page 37, 'There is little doubt that decreasing activity levels are significantly affected by our changing – read, more sedentary – lifestyle.' In his view, schools are well placed to address these problems both through formal programs of physical education and sport and the informal times such as recess and lunch breaks since, as he puts it, 'Teachers and schools are in a position to influence the level of physical activity, and therefore the health and wellbeing of students.'

Interestingly, not everyone shares the view that there is a crisis. Michael Gard and David Kirk, for example, question the research – and the lack of research – and alert us to the fact that there are alternative interpretations. According to Gard, writing in 'HPE and the obesity epidemic,' in *Physical Education in Australian Schools*, edited by Richard Tinning, Louise McCuaig and Lisa Hunter, 'There now exists a body of research that questions the medical consequences of overweight and obesity.' As Gard notes, some studies show that body weight by itself has little effect on people's medical health except in cases of extreme obesity. He also argues that there's little evidence to support claims that we're a nation of couch potatoes or that our children are suffering from an epidemic of inactivity, and goes on to express concerns about the view that it is the role of school Physical Education programs to fight the war on obesity. Adopting this approach, he argues, may lead to a curriculum that's too focused on strenuous, repetitive activity of the sort that concentrates on fitness circuits and laps of the oval at the expense of skill development and a more multidimensional view of health and wellbeing.



David Kirk is also of the opinion that claims of an obesity crisis have little foundation. In his 2006 article, 'The "obesity crisis" and school physical education,' he points out that even the terms 'overweight' and 'obesity,' which are frequently used interchangeably, actually have quite different meanings. 'So even if we cautiously accept the ubiquitous claim that children appear to be getting fatter,' he explains on page 123, 'the precise meaning of this claim in terms of its implications for children's health, now and in the future, is far from clear.' Even the question of just how active children are in this day and age is in dispute. Kirk points to research which suggests that children today are actually more active than they were in the 1980s. Like Gard, he calls for more careful analysis of the research and a warning against drawing conclusions that are not warranted by the evidence.

Whether we have a 'crisis' on our hands or a significant problem that demands our attention, one thing most researchers do agree on is that we need to continue to find ways to encourage children to be active. Pill's 2006 article in these pages outlined a five-point strategy which schools could use to promote active and healthy living, one of these being to make better use of lunch and recess breaks by providing children with access to space and equipment with which to play. Intuitively this makes a lot of sense because these breaks occupy a significant amount of time in the school day, or at least they did. Recess and lunchtime, once highly active periods of the school day for many children, have undergone a transformation. For a number of reasons, not the least a concern for safety, the playground is no longer the haven for active players it once was.

WHAT'S CHANGED?

Australian research by John Evans published in 2003 as well as overseas research by Anthony Pellegrini published in 2005 shows that many primary schools have made changes to their recess and lunch breaks, in four main ways.

Sedentary playgrounds

Why are recess and lunch times no longer places of high activity? In a word, safety. More particularly, because:

- *both the number and duration of breaks in the school day have been reduced*
- *play equipment has changed*
- *there's been an increase in the number and stringency of playground rules, and*
- *playground supervision by teachers is now closer and more organised.*



Eliminating play opportunities altogether is sometimes considered the best and safest course of action even though it takes away from children the opportunity for developmentally-appropriate play. A recent example of this was a school that banned the popular game of 'poison ball' because of a concern that balls thrown at children had the potential to cause injury.

- **Changes to the number and duration of breaks** Not so long ago many schools had three breaks – morning and afternoon recess and a one-hour lunch break. Typically, we now see schools with only a morning recess of twenty or so minutes and a lunch break of forty-five or so minutes, with the first ten or so minutes for eating lunch in a designated and supervised area, the rest for free play.
- **Changes to equipment** Some popular items of equipment like swings, see-saws and flying foxes have been removed, loose equipment in the form of tyres, wood and ropes that might once have been used by children for creative and imaginative play are rarely seen, and even the sandpit has gone in some schools. Strict regulations now apply to fall heights and the type and depth of undersurfacing.
- **Changes to rules** Perhaps the most significant change of all is the increase in the number and stringency of rules applying to what children can play and where they can play it. Climbing trees and even playing in and under them, running, ball games near or against school buildings and games involving tackling or even tag have been prohibited.
- **Changes to supervision** Supervision of the playground is now a more organised and accountable responsibility for teachers. It's not uncommon for teachers to carry clipboards, whistles and mobile phones while on yard duty. Children are no longer left to their own devices to organise their own games and resolve disputes that arise since the playground is now closely monitored, some might say 'policed.' Many teachers now refer to yard duty as being on 'guard duty.'

WHY HAVE THESE CHANGES COME ABOUT?

They're largely a response to the pressures on schools to provide a safe play environment. While it's understood that active children will occasionally sustain injuries from accidents when playing, we seem now to be less accepting of this fact, particularly when the child is in a supervised setting like a school. Parents are now far more likely to demand an explanation and even compensation in the event of an injury since, as Wendy Wallace has pointed out, we now live in a 'compensation culture.' There's very little evidence to show that playgrounds are any more risky or dangerous than in the past but schools are much more conscious of their potential liability, and adopting safe practice means erring on the side of caution.

Playground supervision used to amount to an occasional glance out of the staffroom window. Children were encouraged to sort out their own problems and only seek staff assistance in the event of serious injury or unresolvable disputes. Now supervision is a rostered duty and staff are allocated specific playground patrols. It's rare to see teachers kick the footy with children or join in a game of hopscotch – to do so would risk accusations of negligence should an accident occur. According to Rita Shackel, schools are minimising the risk of injury and possible legal action by restricting children's play. Eliminating play opportunities altogether is sometimes considered the best and safest course of action even though it takes away from children the opportunity for developmentally-appropriate play. A recent example of this was a school that banned the popular game of 'poison ball' because of a concern that balls thrown at children had the potential to cause injury. The fact that very few incidents had been reported didn't stop decision makers at the school from banning the game. In so doing they took away from many children the chance to play a game they enjoyed and played actively and regularly.

Another reason why the changes I've outlined have come about in some schools is that the growing student numbers in some schools lead to the location of new buildings on space previously devoted to play – crowding more children into smaller play spaces, potentially leading to an increase in the number and severity of accidents,

more arguments and conflict over space and equipment, and additional rules – such as zoning play areas – which may further erode opportunities for active play.

Growing pressure to improve academic achievement is another factor. Michael Patte, in ‘What’s happened to recess?’ describes schools overseas not only reducing the length of play time but actually cutting recess breaks altogether in order to spend more time in the classroom, this despite the fact that recent studies like Pellegrini’s show that children need regular breaks. Prolonged periods of academic instruction may actually be counterproductive. As Pellegrini found, play time helps students to learn rather than hindering learning.

Decision makers in some schools have also claimed the lunch break is too long, arguing that children can’t play happily together for forty-five minutes or so. They point out that their records show that most arguments, disputes, fights and accidents occur in the last ten minutes of the long break. Their solution? Shorten the break – the logic being that if children have less time to play they’ll be less likely to have an accident or get into trouble. And the concerns are not just over what happens during the recess or lunch breaks. Teachers say that valuable time is wasted in settling students down once they return to class, particularly if they’ve been involved in some form of altercation during the break.

WHAT ARE THE IMPLICATIONS?

The trend to restrict opportunities for children to play actively during recess and lunch breaks because of safety-first policies and because of pressures on schools to devote more time to improving children’s learning outcomes is not something

In America, they’re cutting recess because of concerns about injury – or maybe that’s concerns about litigation – and so that children spend more time in class working on achieving state-mandated academic standards.

Resources for Courses



Ask children what they actually do and what they would like to do during recess times and they'll tell you they want the space, time, equipment – fixed and loose – and freedom to play, and they're unhappy when these opportunities are not available.

that can be solved simply. We have to accept that schools will take steps to make play environments safe for children and staff, even when a 'safe' playground may not be conducive to active play. The question raised by that acceptance, of course, is whether we can balance the need for safe play against the need for play that is active and vigorous. Put negatively, what are the consequences if we can't balance the need for safe play against the need for active play?

Michael Patte's interesting 2006 study, surveying sixty elementary school teachers from sixty public schools in Pennsylvania in the United States, found that ninety-eight per cent of surveyed teachers believed that recess was important to children's physical, cognitive, social and emotional development and yet fifty per cent of the schools in the survey had recently reduced recess time. According to Patte, this is consistent with what's happening in schools across America. They're cutting recess because of concerns about injury – or maybe that's concerns about litigation – and so that children spend more time in class working on achieving state-mandated academic standards.

According to Andrew Hope, a British researcher whose focus is on risk and surveillance in educational cultures, we've become obsessed with the probability of damage, illness or death. As he puts it in 'Risk, education and culture,' you might easily start to think the contemporary world is becoming more dangerous, but that's not the case. Rather, people have, as he puts it, become 'risk obsessed.' We now live in what Deborah Lupton calls the 'blame society' and this has had the effect of discouraging teachers and schools generally from allowing children to engage in any activity that has the slightest element of risk.

It's no surprise, then, to come across articles like one in the *Australian Educational Leader* last year by Keith Tronc, a barrister, which sets out a checklist of nineteen rules which, Tronc believes, should be an essential part of every schools' playground supervision plan. The motive behind the rules is to help schools keep children safe and avoid potential legal problems. The rules are specific and very much directed at ensuring that teachers take their supervision seriously. For example, the eighth rule, on page 13, states: 'There is to be immediate intervention by teachers on playground supervision duty, preventing any observed dangerous games and activities, with the aim of protecting the safety of students.'

In Tronc's language, teachers now 'patrol' playgrounds, maintaining 'continuous surveillance' on constant alert for children engaged in 'illegitimate occupation.' Tronc's 'guard duty' replaces 'yard duty,' shifting the function of teachers from facilitation with minimal intervention to surveillance with frequent intervention. Not surprisingly, 'guard duty' has become highly unpopular for most teachers.

Intervention is now more frequent in part because the types of games and activities now thought to be 'dangerous' have grown. A good example of this is 'play fighting' or 'rough and tumble play,' an activity enjoyed by boys in particular which sees them wrestling, rolling and pretending to fight. According to Tom Reed and Sharon Roth, this type of play is immensely valuable not just for its vigorous activity, but also because boys use it as a way of expressing feelings and building friendships. As Mechtild Schaefer and Peter Smith found in their 1996 study of teachers' perceptions of play fighting and real fighting, though, teachers were more inclined to judge rough and tumble play as 'real' fighting than as 'pretend' – and insist that children stop immediately since they believed it was dangerous, would deteriorate into aggressive behaviour and would in all likelihood result in injury. By intervening in such ways, teachers are as much protecting themselves as they are protecting the children.

The problem we now face is not just that children may have fewer opportunities to be physically active during recess and lunch breaks but that increasing restrictions and interventions curtail both opportunities for social play with friends and play which

involves exploration, uncertainty and challenge. Ask children what they actually do and what they would like to do during recess times – as Julia Bishop and Mavis Curtis did in 2001, Sue Dockett did in 2002, and Catherine Burke and Ian Grosvenor did in 2003 – and they'll tell you they want the space, time, equipment – fixed and loose – and freedom to play, and they're unhappy when these opportunities are not available, which might help explain some of those behaviour problems reported by schools in the latter stages of lunch breaks. Children deprived of opportunities to play become bored and restless. A child, when asked by Sue Dockett 'do you play at school?' replied, as she reports on page 9 of 'Teachers don't play!' 'We do but you are not allowed to shout and you are not allowed to touch and not allowed to fight.' As the title of her article suggests, the children in her study made frequent reference to the fact that teachers don't play. According to Dockett that's unfortunate because teachers can be a major factor in promoting and maintaining play. Put simply, playing with the children acknowledges that play is important. On the other hand, as Tronc points out, playing with children while on duty places the teacher at risk of being accused of negligence should an accident occur. As he advises in his twelfth rule, again on page 13: 'Teachers on playground duty should not undertake any participation in student games that would prevent them from properly performing their surveillance duties.'

What we now see in most schools is a built environment rather than a natural one and, typically, the natural spaces that still exist are ruled out of bounds to children. This is in complete contrast to what we know children prefer, as Wendy Titman found in her study. According to Titman, children enjoy natural landscapes, trees, bushes, ponds, gardens and sand pits because they offer diversity and the opportunity for risk and challenge. Given a choice, they much prefer to climb trees than play on the fixed climbing frames we see in many schools, and like using bushes as places to hide from real and imaginary enemies or as places of retreat to sit and ponder. The natural environment, however, isn't easily supervised and ease of supervision is the crucial factor today.

WHERE TO FROM HERE?

There's little doubt that some playground equipment in schools was well past its use-by date and needed to be replaced: cracked and splintered pine-log equipment posed dangers for users, fort structures provided little protection against small children slipping through or getting caught in railings; chain on swings sometimes trapped little fingers. Reports by Angela Clapperton and Erin Cassell, and by Margaret Cavanagh show that falls from playground equipment account for the highest number of playground injuries, so it would be negligent not to take appropriate action to reduce and, if possible, prevent such accidents, and schools are doing just that. Attention is being given to proper undersurfacing and making sure new equipment conforms to national standards for playground design.

At the same time, the playground at recess and lunch time can and should be a place where children engage in a multitude of active games, which can make a significant contribution to their physical, social and cognitive development. Children need access to space and equipment and they need to be encouraged to play, where possible, with minimal intervention. The issue, finally, is this: how do we provide an environment where children can play actively, explore, take risks and challenge themselves, *and* do so free of accident and injury? The truthful answer is we can't. We can take precautions, but we can't eliminate risk or the chance of injury short of preventing children from going out to play or regulating it so heavily that they're essentially bubble-wrapped. This is precisely what's happening in some schools overseas. I hope it's not something any professional educator wants to see happening here.

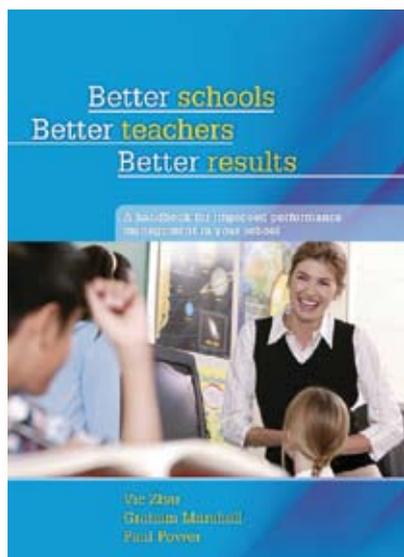
Longer daze

By STEVE HOLDEN

States and school districts across America are increasing the number of hours in their school day by reducing break times and extending class time into the afternoon by between a half hour and two hours. The reason? The federal government's No Child Left Behind (NCLB) law, which requires annual testing of students, with severe sanctions for schools that do not make adequate yearly progress. Sanctions range from requiring failing schools to pay the transport of students who elect to enrol at another local school that is not failing through to the extreme measure of closure. School leaders who have extended the school day say that their regular day concentrates on NCLB test preparation and they need the extra hours so teachers can spend more time to prepare students for tests or to teach across curriculum areas such as History, Art and Drama that are last on most teachers' list because they fall outside the NCLB testing regime.

John Evans is a Senior Lecturer in the Faculty of Education at Deakin University, Geelong.

For references go to www.acer.edu.au/professionaleducator/references.html



Better Schools, Better Teachers, Better Results

ALTHOUGH this book calls itself a handbook for improved performance management, it seeks to do much more than simply assist school leaders appraise teacher performance in their schools. Vic Zbar, Graham Marshall and Paul Power run a strong subtext that focuses on the conditions that foster effective schools and effective teachers, and they acknowledge that performance management is only one aspect of a successful school community.

Chapters dealing with designing performance management systems, bringing staff on board and building capacity tackle the challenges facing school leaders in establishing models of performance management that are accepted and supported by all staff. Zbar, Marshall and Power articulate performance management as a process for linking teachers and support staff to the success of students and the school, and for establishing a shared understanding of what has to be achieved and how. They suggest that success will occur when there is a clear and unrelenting focus on student learning and building a climate which emphasises continuous improvement and learning by all. These chapters provide practical advice for school leaders and include diagrammatic representations of most ideas that lend clarity to the concepts being advanced. Questionnaires and pro formas offer practical tools for leaders that will be welcomed in many situations.

These initial chapters seek to place the functional and practical aspects of performance management within a framework of research into teacher effectiveness and quality teaching and learning, drawing on such luminaries as Richard Elmore and John Hattie. This is not surprising considering the background of the authors, and the inclusion of references and a reading list is an encouragement for school leaders using the book to develop their own views about effective professional learning cultures as much as about performance management.

The final chapters provide guidance for team leaders and teachers working with team leaders and conclude with advice about monitoring the impact of performance management systems. The authors work through the steps required of the different players and don't resile from the challenges and complexities facing leaders. These chapters were a little less convincing at times: the 'top down' model proposed for leaders appears to be at odds with the rationale of collegiate practice and shared responsibility outlined earlier; and the advice earlier in the book to make sure that eighty per cent of your feedback is positive was not borne out in figure 3.9 where questions were phrased in the negative – a minor inconsistency which would only be of consequence if the book were used as a mindless lock-step formula for performance management. The authors stress the need to consider the context of each individual school and the flexible use of the tools presented.

This book provides school leaders with an array of tools to be used in establishing and sustaining an effective performance management system. The authors draw on current research, professional standards and the characteristics of effective teachers to argue for a model where there is interaction and collective purpose. In fact, there is evidence to suggest that school leaders immersing themselves in the simple strategies and structures proposed in this book will move their staff and schools well beyond performance management and into a professional learning culture where self assessment and appraisal is integral and ongoing, and the term performance management is redundant.

BY

Vic Zbar, Graham Marshall
and Paul Power

ISBN 9 780 864 317 490

RRP \$39.95

PUBLISHED BY

ACER Press

REVIEWED BY

Fran Cosgrove

Fran Cosgrove is the Manager of Professional Learning at the Victorian Institute of Teaching.

Want to know about professional development opportunities, conferences and just plain useful stuff? **The Diary** tells you what's on.

15-17 JUNE

EVENT **The Alliance of Girls Schools Australasia Annual Conference**

PLACE Lauriston Girls' School, Melbourne

CONTACT Jan Butler

PHONE 07 3488 2686

EMAIL jan.butler@internode.on.net

WEBSITE www.agsa.org.au

21 JUNE

EVENT **SMART Technologies and ELECTROBOARD Solutions World Teachers' Day Video Contest**

Primary and secondary teachers across the globe can submit videos that demonstrate how SMART Board interactive whiteboards improve student learning outcomes. Asia Pacific finalists win iPod shuffles, with the regional winner receiving a SMART Board and a chance to go to London for BETT 2008.

WEBSITE www.smarttech.com/wtd

4-6 JULY

EVENT **Working with Boys, Building Fine Men** The 5th biennial conference of the Family Aciton Centre of the University of Newcastle includes keynotes by: Melvyn Davis, boys2MEN project, Vic; Michael Gurian; and Andrew Fuller.

PLACE University of Newcastle

PHONE 02 4984 2554

EMAIL boys@pco.com.au

WEBSITE www.pco.com.au/boys2007

6-9 JULY

EVENT **21st Biennial Conference of the Australian Association of Mathematics Teachers 'Mathematics: Essential for**

learning, essential for life'

PLACE University of Tasmania, Hobart

EMAIL office@aamt.edu.au

PHONE 08 8363 0288

WEBSITE www.aamt.edu.au/2007

11-13 JULY

EVENT **16th National Vocational Education and Training**

Research Conference 'No Frills'

Sponsored by NCVET and Charles Darwin University.

PLACE CDU Alice Springs campus

CONTACT June Ingham

EMAIL june.ingham@ncver.edu.au

WEBSITE www.ncver.edu.au/newsevents/trconf/trconf16.html

23-28 JULY

EVENT **ICT Week: 'Switched on: ICT Now'** Celebrate and showcase the use of information and communication technologies throughout your curriculum during ICT Week. The focus this year is on developing ICT skills to improve career pathways to all industries.

CONTACT Lisa Chadderton

PHONE 03 9495 6836

FAX 03 9495 6834

EMAIL lisa@vitta.org.au

WEBSITE www.vitta.org.au/switched-on

29 JULY-1 AUGUST

EVENT **Directions for Catholic Educational Leadership in the 21st Century: The Vision, Challenges and Reality** hosted by ACU.

EMAIL conferences@acu.edu.au

WEBSITE www.acu.edu.au/conferences

3 AUGUST

EVENT **Jeans for Genes Day**

Wear jeans to school to help the Children's Medical Research Institute find cures for children's diseases.

PHONE 1800 436 437

WEBSITE www.jeans4genes.com.au

12-14 AUGUST

EVENT **'The Leadership Challenge: Improving learning in schools' The 2007 Research Conference of the Australian Council for Educational Research**

PLACE Grand Hyatt Hotel, Melbourne

CONTACT Margaret Taylor

PHONE 03 9835 7403

FAX 03 9835 7457

EMAIL taylor@acer.edu.au

WEBSITE www.acer.edu.au/workshops/conferences.html

18-26 AUGUST

EVENT **National Science Week**

WEBSITE <http://www.scienceweek.info.au>

19-21 NOVEMBER

EVENT **VITTA 2007 'Rethinking Education: You say you want a revolution?'**

The theme of the Victorian IT Teachers Association annual conference acknowledges the radical shift in the teaching and learning landscape that faces educators of information and communication technologies.

PLACE The Grandstand, Flemington Racecourse, Melbourne.

CONTACT Donna Benjamin

PHONE 03 9495 6836

FAX 03 9495 6834

EMAIL donna@vitta.org.au



Forget your pride of lions Try a shmuck of jellyfish

Danny Katz comes clean and shows us his collective noun collection – at least what’s left of it since he stopped collecting in the Seventies.

ADDICTIONS have plagued me all my life, but thankfully never the big ones, never the scary ones, like drugs or alcohol or tobacco – sure I dabbled in those too, but that was all on the one night, at Davy Schannzer’s twenty-first, then I threw up on his father’s billiard table, and decided to stay clean for good.

No, I’m talking about the lesser addictions, the more obscure, insidious ones that get into your system and just won’t get out – like my glue habit. Yeah, I’ve always loved that special glue they use to attach promotional shampoo sachets inside women’s magazines – that long stringy glue that feels so good when you peel it off. Ooooooh I love peeling off that glue, it’s the finest sensation I ever experienced – at least until I got into popping bubble wrap. I’ve also had a two-year battle with the springrolls at Saigon Palace, a three-year struggle with plumping the cushions on my couch, and a five-year dependency on that ‘seafood cocktail highlighter’ stuff you buy from the deli. I love eating that stuff, even if it tastes like squid-scented porridge.

But there’s one addiction that wound up being the most dangerous and tenacious one of all, and I’m talking about the Big C, the Grammar Gunja – also known as..... Collective Nouning. Yeah, I got hooked on the Collective Noun in fourth grade of primary school, under the influence of my dealer/teacher, Mr Miro, or as he was known, The Punctuation Pimp. Mr Miro pumped us with hundreds of them: ‘a nuisance of kittens,’ ‘a sleuth of bears,’ ‘a conspiracy of ravens’ – I WAS A COMPULSIVE COLLECTIVE NOUNER BY THE AGE OF NINE. We were doing at least ten a day, and anything up to twenty during our weekly Crazy Kool-a-Roonie Friday-Fun English Blast-Zone – it was the Seventies, we had lessons like that back then. Every day, Mr Miro dealt us stronger and harder doses: ‘a pod of porpoises,’ ‘a rumba of rattlesnakes,’ an ostentation of peacocks’ – oh man, we were hooked on the gear, we were having a Conflagration of Fun.

Soon I was Collective Nouning all day long: in the classroom, in the playground, behind the shelter shed, making up rude ones with Sam Sequira: ‘a pong of toilets,’ ‘a finger of boogers,’ ‘a lagoon of wee-wees’ – it was the Seventies, we thought that was rude back then. I even started C-Nouning at home, RIGHT IN FRONT OF MY OWN PARENTS – telling them that a group of doves was a ‘piteousness,’ a group of ferrets was a ‘fesnying,’ and that while a group of pheasants was a ‘nye’ on the ground it was a ‘bouquet’ when fully flushed. But my downward spiral began the day Mr Miro taught us that a group of jellyfish was called a ‘shmuck’.....that was the moment my parents decided to step in and get me off the C-N junk for good. See, I come from a Jewish family, and in the Yiddish language, a ‘shmuck’ is actually a very vulgar word – it’s a term for a certain male reproductive organ that I don’t need to actually spell out, but let’s just say the collective term for them is a ‘dangle.’

So the next morning, my mother visited the school and told Mr Miro that a group of jellyfish couldn’t possibly be a ‘shmuck’ and Mr Miro said that it was definitely a ‘shmuck,’ and Mum said ‘No it’s not,’ and Mr Miro said ‘Yes it is,’ then he showed her our English textbook, and sure enough, he was right – though she still wasn’t happy about it. As she walked out of the classroom, I heard her mumbling under her breath, calling Mr Miro a group of jellyfish. But sadly, the damage was done: after that morning, Mr Miro lost his passion for the Collective Noun, and he never taught us another one again. We had to go back to boring spelling tests and dreary punctuation exercises and tedious dictation – and eventually all us fourth graders switched over to a new addiction: we got onto cigarettes. Candy cigarettes. It was the Seventies: we smoked those back then.

RESEARCH CONFERENCE 2007

The Leadership Challenge: Improving learning in schools

Early registration is recommended
to avoid disappointment.

Contact: Margaret Taylor
Tel: 03 9835 7403
Fax: 03 9835 7457
Email: taylor@acer.edu.au
www.acer.edu.au

12-14 AUGUST 2007, GRAND HYATT HOTEL, MELBOURNE, VICTORIA

The need for effective leadership in our schools and school systems has never been greater. School leaders can have a major impact on student learning, even in the most disadvantaged schools.

This conference will address key issues related to building leadership in schools that makes a difference to student learning outcomes. It will:

- Provide the latest research on leadership practices that enable conditions for quality teaching and student learning.
- Stimulate discussion about the resources and conditions that need to be in place if effective forms of leadership are to flower and be sustained in our schools.

CONFERENCE SPEAKERS INCLUDE:

Professor Philip Hallinger,
Mahidol University, Bangkok

Dr Chris Sarra,
Indigenous Education Leadership Institute, QLD

Professor Viviane Robinson,
University of Auckland, NZ

Professor Elizabeth Leo,
University of Dundee, UK

Dr Lawrence Ingvarson & Michelle Anderson,
ACER

Dr Phillip McKenzie,
ACER

Assoc. Prof. Michael Bezzina,
Australian Catholic University, NSW

Professor Bill Mulford,
University of Tasmania

Professor Sheryl Boris-Schacter,
Lesley University, Massachusetts

Professor Steve Dinham,
University of Wollongong, NSW

Professor Brian Caldwell,
Educational Transformations, VIC

Dr Louise Watson,
University of Canberra, ACT

Professor Paul Hughes, *UNISA;*
Ms Susan Matthews & Mr Gavin Khan,
National Aboriginal Principals Association (NAPA)

Knowledge is power.

Boost your career to a higher level with
a world of exclusive
online research and information.



Knowledge is power

ASCD wants to help boost your career to a higher level with a world of exclusive online research and information by extending to you a special invitation to enjoy extraordinary membership opportunities through **ASCD Express**. You can stay on top of the education world with the latest and most relevant research and information. It's a great way to give your daily practices a universal perspective while you save time and money.

Indispensable resources

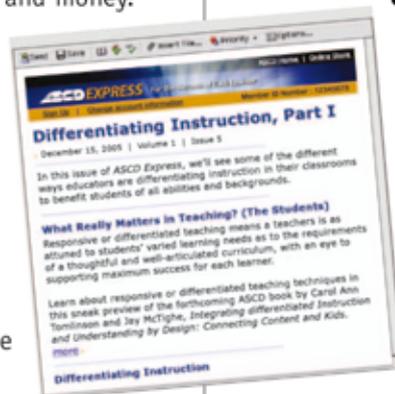
With ASCD Express, you get 24/7 access to one of the largest libraries anywhere—the ASCD Online Library—without leaving your desk. You can also check out the enormous volume of available resources essential to advancing your career. Plus, you can get free e-newsletters and shop our online store.

It's all about your future

Boost your career and discover a world of professional development opportunities—for all grade levels and subjects. And you can enjoy this enormous volume of relevant resources for only US\$29!

Your benefits are endless...

- Stay informed
- Save time and money
- Benefit from an exclusive online membership and a wide variety of meaningful resources at your fingertips
- Get it all whenever you need it, 24/7
- Save with members-only discounts
- Access classroom-proven practices
- Go to one of the largest libraries anywhere—without leaving your desk
- ASCD Online Library



JUST US\$29

to tap into our vast research and
information resources with exclusive
membership to ASCD Express.



Discover a World of Educational Opportunities!

Visit www.joinup.org/ascdexpress813



Association for Supervision and Curriculum Development
1703 North Beauregard Street • Alexandria, VA 22311-1714, USA • www.ascd.org