

Education Cambridge

University of Cambridge Faculty of Education

June 2009 issue 3



Undergraduates debating Children's Poetry

Undergraduate Education

The recent Guardian University League Table of Undergraduate Education courses gives a good deal of food for thought. Based on indices of teaching quality, student satisfaction levels, career prospects, staff-student ratio and per capita student spend, the Faculty's undergraduate course is very highly rated, with a Guardian score of 100 which places us 'well above' the other institutions.

No matter that we take a critical stance on school league tables; no matter that the Guardian tables might appear subjective and of dubious reliability; no matter that the Education table seems to include the very different beasts of initial teaching training courses and academic courses in Education Studies, if we are to have league tables, then it is 'to be expected' that – like Manchester United – we will at least be challenging for the premier place, to be the champions.

Yet the tables are interesting because of the institutions which are missing ... no

Oxford, no King's London, no Sussex, no Bristol, no Nottingham. Indeed, only four other Russell Group universities appear to offer some form of undergraduate course in Education, and where they do so, the entry qualifications students bring to it are significantly below the entry tariff for their other courses.

So we are unusual in our commitment to undergraduate Education as a rigorous academic course in its own right. We believe that the Cambridge Education Tripos is ideally suited for students who have a broad range of interests, and wish

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PERSPECTIVE

Undergraduate Education *continued from page 1*

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Editorial Team

Mike Younger
 Susannah Lacon
 Nikhil Gomes
 Clare Yerbury
 Ken Bingham
 Jay Pema

Photography & illustration

Nikhil Gomes, cover
 Toby Ilett-Woolmer, page 16

Design & Print management

H2 Associates, Cambridge

Faculty of Education

184 Hills Road
 Cambridge CB2 8PQ
 tel: 01223 767600
 email: newsletter@educ.cam.ac.uk
 website: www.educ.cam.ac.uk



Mike Younger, Head of Faculty

to study the social sciences through Education. We sustain our belief that this course is ideal for those students who are passionate about Education, whether or not they wish to go on to teach, and for those who wish to work in a national or international policy context, particularly on issues of Education and Social Justice.

Through this course students can gain an understanding of education and the contexts in which it takes place, by drawing on a wide range of intellectual resources, theoretical perspectives and academic disciplines. They have opportunity to study the foundation disciplines of education – history, philosophy, psychology and sociology – and their contribution to our understanding of educational policy and the process and practice of education. Here they can engage with fundamental questions concerning the aims and values of education and its relationship to society, and study Education with a global perspective; they can learn to conduct research and enquiry within the field of education and be enabled to pursue postgraduate study in education. Without courses such as this, the discipline becomes narrower and more mechanistic, and the teaching profession less informed.

Rating	Name of Institution	Guardian score/ 100	% Satisfied with teaching	% Satisfied with feedback	Spend per student (FTE)	Student: staff ratio	Value added score/ 10	Average Entry Tariff
1	Cambridge	100	89	73	10	11.7	7	474
6	Reading	77.1	93	70	5	19.2	10	301
13	Durham	68.4	85	63	6	17.7	3	389
15	Warwick	66.3	83	60	10	16.1	7	311
17	Exeter	64.1	92	72	8	21.2	8	338
26	Canterbury Christ Church	58.9	82	53	6	17.8	3	304

Source: Guardian newspaper <http://tiny.cc/TCEKf>

Extract of the Guardian Education League Table

Global Education: The Centre For Commonwealth Education (CCE)



Ghanaian Schooling

The promotion of equity and social justice is a central concern within the Faculty of Education; it lies at the heart of our aspirations and impacts upon strategic decision-making at every level. One aspect of this can be seen in the establishment of the Faculty's Centre for Commonwealth Education, developed within the last year and supported significantly by funding from the Commonwealth Education Trust (the successor to the Commonwealth Institute). The CCE aims to build sustainable capacity in Commonwealth countries in the areas of school leadership, pedagogical expertise, and initial and continuing teacher education. The ultimate goal is to improve the quality of schooling in a climate of widening participation, supporting the development of policy and practice which is informed by research, appropriate for specific local needs, sensitive to cultural concerns and constraints but able to offer constructive challenge in a spirit of collaborative inquiry.

The first year of the Centre's existence has been a time of challenge and opportunity! In July 2008, a team from the Faculty launched projects in Tanzania, in association with the Institute for Educational Development [IED]-East Africa. The Zanzibar Round Table saw the initiation of work on pedagogy and lead-

ership in a Tanzanian school and initial teacher education and training (ITET) projects which focus on health education and gender. A further strand of work is exploring the role of ICT in improving the quality of learning and teaching in East African schools, and the role of blended and distributed learning in initial and continuing teacher education programmes; this project crosses four continents, involving colleagues

from the University of Calgary and the Aga Khan Institute for Educational Development in Karachi, as well as Cambridge and Dar-es-Salaam colleagues.

More recently, these initiatives have been further developed in terms of a project on ASKAIDS in collaboration with colleagues in South Africa and Kenya, and work on girls' academic achievements and retention in school in Uganda and Kenya, in part in collaboration with FAWE (Forum for African Women Educationalists).

A second major direction for the work of the Centre involves the establishment of an Academy for Leadership in Education, premised around the development of educational leaders with commitment and influence to effect change, to create conditions for learning which energise colleagues and impact in tangible ways on classroom learning. The short-term aim here is for the CCE to contribute to the development of a powerful network of educational leaders, at policy level and across schools, who will not only impact in their own countries but have the potential to work together as a vital international Commonwealth network. As a starter, a project has been developed with the Ghanaian Ministry of Education and the University of Cape Coast: *Building Headteachers' Leadership Capacity for Enhancing Quality Teaching and Learning in Ghanaian Basic Schools*.



Our next major event – in June 2009 – is the Cambridge Summer School, bringing together representatives from across the Commonwealth to review the first year's work of the CCE and to explore issues related to capacity-building for learning at classroom, school and system levels in different countries of the Commonwealth.

There is much remaining to be done: some of the new projects being explored relate to Education For All in India; curriculum development and assessment in India, Mauritius and Botswana (in collaboration with Cambridge Assessment); developing collaborative work on raising boys' achievements in primary and secondary schools in the Caribbean; developing a closer relationship with the Education Faculty of the University of Canterbury in Christchurch, New Zealand. All of them, though, relate to the Faculty's strategic commitment to improve education for all, and to sustain a vision of education which enables individuals to maximise their own potential, free from the constraints of poverty and background, within a context of increased mutual understanding and global interdependence. The future, as ever, is exciting.

For more information on the CCE please see www.educ.cam.ac.uk/centres/cce/



Inside Research: Science, Technology & Mathematics Education

The Faculty's academic group in Science, Technology and Mathematics Education is one of the largest within Britain, with over 25 staff members active in research and a similar number of doctoral students. The group's core areas of interest and expertise are in the teaching and learning of mathematics and science, and in the professional education and training of teachers, particularly at primary and secondary school levels. There is also considerable interest and expertise in the use and integration of digital technologies in these areas. The group aims to undertake projects which make a significant contribution to both the research and professional fields, seeking to combine intellectual rigour and originality with concern for development of policy and practice.

Teacher Education

From close analysis of videotapes of mathematics teaching in primary classrooms, [Tim Rowland](#), [Fay Turner](#), [Peter Huckstep](#) and [Anne Thwaites](#) have identified a range of distinctive ways in which effective teaching depends on teachers' capacity to draw on their own knowledge of mathematics and mathematics pedagogy. The blend and application of these two kinds of knowledge, together with knowledge of materials and curricula, is unique to teaching, and is perhaps insufficiently recognised and valued by teachers themselves. A recent book, *Developing Primary Mathematics Teaching: reflecting on practice with the Knowledge Quartet*, presents the resulting four-dimensional classification of the types of situation in which this professional mathematical knowledge surfaces in teaching. Of particular interest is teachers' choice and use of examples, and the ways that teachers draw on their knowledge in unexpected situations, when they are obliged to 'think on their feet'. Over the last four years, Fay Turner has also been working with a group of early-career teachers to investigate the use of this framework for the analysis and improvement of their teaching.

Through work with a number of colleagues, [Elaine Wilson](#) has been looking at how new teachers might be supported during their early years in the profession. Research with [Rosemary Deaney](#) has been investigating teacher agency with particular emphasis on career changers during the transition from earlier career through Initial Teacher Education and into the first teaching post. With [Helen Demetriou](#), a longitudinal study of new teachers in

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Of particular interest is teachers' choice and use of examples, and the ways that teachers draw on their knowledge in unexpected situations.
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their first five years of teaching has led to published work on teacher retention and teacher emotions. Research with [Alison Fox](#) has been studying teacher education from the perspective of workplace learning, focusing on the networks that new teachers form. A study with [Mark Winterbottom](#), has used self-determination theory to analyse a survey of 550 new teachers during their first year of teaching. Current work with [Ros McLellan](#), also involving Rob Klassen from the University of Alberta, focuses on teachers' self-efficacy.

Using Digital Technologies

[Sara Hennessy](#), [Neil Mercer](#) and [Paul Warwick](#) are investigating the critical role of the teacher in orchestrating interactive whiteboard [IWB] use to support subject teaching and learning through dialogue in which teachers and learners evaluate and build upon others' ideas in constructing new meanings and digital artefacts together. This work is also contributing to the development of innovative methodology for researcher-practitioner co-enquiry that involves collaborative theory building and framing of theoretical outcomes using mutually accessible language. A pilot funded by the Economic and Social Research Council [ESRC] is conducting case studies of primary and secondary teachers with an established dialogic approach to

explore how using the IWB can open up a space for new multimodal forms of dialogue which go beyond talk alone, and for cumulative knowledge building across lessons. A further related ESRC-funded project, in which [Ruth Kershner](#) is also an investigator, is exploring semi-autonomous use of the IWB by pupils to support collaborative learning in primary science. Again the focus is on the potential of the IWB as a resource to assist collective thinking and learning through supporting and contextualising productive dialogue in relevant ideas and creating new joint understanding in science activity. The findings offer examples of pupils expressing, developing and revising ideas through rich dialogue and physical interaction with the board, with recourse to shared visual records of class activity.

Both mathematics and science involve distinctive types of reasoning and argumentation that students find difficult to master. Given the centrality of reasoning and argumentation to mathematical and scientific enquiry and their importance for students' learning, a major challenge is how to design effective instructional practices to help students overcome such difficulties. [Andreas Stylianides](#) tackles this problem in the area of mathematics education, focusing on the concept of proof, which, as the most advanced type of mathematical argument, teachers find particularly hard to teach. In an ongoing project organised as a design experiment in two secondary mathematics classrooms, he aims to develop theoretical frameworks and practical tools about ways in which instruction can support students' learning of proof.

Mathematics Enrichment

Other work within the group focuses on the innovative approaches to educational enrichment within and beyond the normal school classroom that are being developed within the *NRICH Maths* project. [Jenny Piggott](#) and [Liz Woodham](#) have been investigating the role of visualising within the problem-solving

RESEARCH

EED

Education, Equality and Diversity

This term the EED group has hosted a number of social theory seminars which included presentations from [John Thompson](#) from PPSIS, University of Cambridge and [Bev Skeggs](#) from Goldsmiths College, London. [Diane Reay](#) has been running a Critical Marxist reading group and [Ulla-Maija Salo](#), University of Helsinki gave three workshop sessions on children's writing. The Group has also been successful in attracting research funding. [Hilary Cremin](#) and [Carolynne Mason](#) (with colleagues from the University of Leicester) have been awarded the Society for Educational Studies National Award for a project which seeks to investigate the ways in which young people from socio-economically disadvantaged communities express their civic identities and engage with their communities at local, national and global levels. The Inclusion Group (together with [Caroline Oliver](#) and Diane Reay) have been awarded £55,000 through TPRP to research the identities and constructions of self among Bangladeshi and Pakistani young people with special educational needs and/or disabilities.

LLSI

Leading Learning for School Improvement

While various aspects of the work of this research group continue to advance and will be reported on in due course, a more immediate focus which we wish to celebrate is the recent Inaugural Lecture by [Professor Peter Gronn](#). The lecture took place on Wednesday 17 June and was followed by a drinks reception. The title that Peter chose for his lecture was, *Leadership: Its Genealogy, Configuration and Trajectory*. Looking at the prolonged flirtation in the 1980s and 1990s with what has become known as a 'heroic paradigm', and the current search for post-heroic alternatives to understanding leadership, Peter's Lecture was a wonderful occasion. Given Peter's own



Staff celebrating Maria Nikolajeva's Inaugural Lecture

positioning within the field of leadership literature, and his historical perspective on leadership thinking more generally, the possible insights for the future of the field were both insightful and exciting.

PLACE

Pedagogy, Language, Arts and Culture in Education

More than 100 Faculty and University staff, students and well wishers from UK and beyond came to hear [Professor Maria Nikolajeva](#) give a sparkling inaugural lecture at the Faculty of Education on 29 April. Professor Nikolajeva's theme was the way literary language can oppress or offer agency to young readers of children's books. In a stimulating and provocative lecture, using many appealing images to illustrate points she was making, Maria ranged from Lewis Carroll's Alice, to Milne's Winnie the Pooh stories, Doctor Seuss's crazy verse and, yes, there was some mention of Harry Potter! Maria succeeded brilliantly in demonstrating the intellectual credentials of the subject and its broad appeal to all ages. As well as delighting her audience with her wit and wisdom, Maria's lecture caught the popular imagination and she found herself giving interviews in newspapers and on national as well as local radio.

PNE

Psychology and Neuroscience

Members of the Graduate Qualification Accreditation Committee of the British Psychological Society visited the Faculty to undertake an accreditation visit regarding the popular MPhil/MEd course in Psychology and Education. They met course staff and students, and toured the Faculty's psychology-related facilities. PNE members have also been presenting their work abroad, [Professor Christine Howe](#) at the Society for Research in Child Development (Colorado), [Dr Tim Fosker](#) at the Mismatch Negativity conference in Hungary, and [Professor Usha Goswami](#) at the Dutch Dyslexia Programme, Amsterdam. Early year's specialist [David Whitebread](#) assessed the educational value of children's toys in 'Professor Regan's Nursery' on BBC2. Finally, PNE is hosting two visiting scholars, [Professor Sung-il Kim](#), Director of the Brain and Motivation Research Institute, Korea University whose interests lie in motivation and neuroeducational approaches to learning, and [Professor Michael Martinez](#), University California, Irvine who is looking at learnable intelligence, see the Psychology & Neuroscience webpage for details.

For more information please see www.educ.cam.ac.uk/research/

FERSA

The Faculty of Education Research Students' Association

The annual **Kaleidoscope Conference** is the main event in FERSA's Easter Term. This year's goal was to expand participation, and the committee, chaired by Peter Hastö, met with great success. The conference attracted over 80 registrants, drawing students from more than 15 universities, several different countries, and from a diversity of departments and faculties throughout the University of Cambridge.

The highlight of the conference was provided by headlining key-note speakers, who were invited to reflect on the process of research and becoming an educational researcher. This year's speakers were the Faculty's own **Ciaran Sugrue**, with 'A World Educational Research Association: Re-shaping if not re-thinking the future of educational research' and **Avril Loveless**, from the School of Education, University of Brighton with 'Research as creative activity'.

Another development this year is a renewal of a collaboration with the Institute of Education's peer reviewed student journal, *Educate~*, fostered by Nitu Duggal. Thanks to Nitu's work, a special issue of *Educate~* will be devoted to select papers from Kaleidoscope. This collaboration has also provided students with three workshops funded by *Educate~* on journal writing and reviewing, and opportunities to sit on the journal's board.

Kaleidoscope 2009 also benefited from the increased contribution of academic staff. A great deal of interest in the conference is due to the generous participation of staff as discussants, including **Paul Andrews, Uzma Quraishi, Richard Hickman, Keith Taber, Darleen Opfer, Pam Burnard, Julia Flutter**, and **Georgina Horrell**. The opportunity for students to engage with academics from the Faculty of Education has been one of the most well-received aspects of the conference. Their contributions, as well as those of the key-note speakers, are greatly appreciated and fundamental to the rich learning experience FERSA aims to offer with Kaleidoscope.

Jennifer Saari, Fersa Chair

For more information on FERSA please see www.educ.cam.ac.uk/services/students/research/

FERSG

The Faculty of Education Research Staff Group:

The Research Staff (RS) Group provides the opportunity for research staff to share experience and good practice as well as engage in informal networking. Meetings provide first and foremost a point of social contact for new and existing researchers, helping to overcome the isolation often associated with research work. We provide orientation to new research staff and provide an informal point of contact for finding out the things that new researchers may be unsure of and dare not ask! In addition, the group coordinators (see below) identify difficulties and take forward suggestions to improve the experiences of Research Staff. Our aim is to provide a friendly space for us to meet, whilst being proactive in improving the conditions and maximising the outcomes of our current and future research work.

One important issue we have identified has been that of difficulties for research staff in accessing skills and career development opportunities. The day to day constraints and sometimes unforeseen circumstances of research work can prohibit RS from attending courses or having reflective space to think about career development. We have recently initiated contact with the University's Staff Development Advisor to work with us in finding ways of exploiting the potential for meeting space as a place for professional development.

Along these lines, we have developed our own 'good-practice' sessions devoted to specific aspects of our professional lives. For instance, we recently ran a few sessions on 'Academic Writing', which proved very frank and informative, with advice and experiences being shared on how to deal with a poor review, how best to prioritise writing and how to overcome writer's block!

Caroline Oliver, Rosemary Deaney, Wafa Kotob, Joana Taylor Tavares

For more information please contact co269@cam.ac.uk



Global Education: Centre for Education and International Development (CEID)

Education plays a central role in the development of nations. Nevertheless, more than 70 million children of primary-school age are not in school, with the worst shortfalls in Africa and South Asia. Completion of schooling is also a significant problem, with only about half of children in Africa completing primary school and about three-quarters in South Asia. Both enrolment and completion levels are lower for girls and are lowest for children from poor households. Recognizing the importance of education in the fight to combat poverty, the international community agreed, amongst the eight Millennium Development Goals (MDGs), the targets of reaching universal primary education and of attaining full gender-parity in enrolments, across all education systems, by 2015.

The Centre for Education and International Development (CEID) is directed by **Professor Christopher Colclough** with **Professor Madeleine Arnot** as Deputy Director. It has a core group of four academic staff, with a range of other staff and research students being associated with its work. The CEID was established in 2008 to investigate the many ways in which education contributes to the socio-economic development of nations and to the well-being of their peoples. It seeks to explain patterns of access to and outcomes of education in developing countries, and to demonstrate how they can be improved.

Research consortium on educational outcomes and poverty (RECOUP)

The CEID provides a natural home for multi-national research partnerships. It presently leads the Research Consortium on Educational Outcomes and Poverty (RECOUP) which comprises seven institutions in India, Pakistan, Ghana, Kenya and UK. The Consortium is investigating how education affects the lives and livelihoods of people living in poorer communities in the South, and what policy interventions might best support them. Established with five-year

programme-funding from the UK Department for International Development (DFID) in 2005, it focusses on South Asia and sub-Saharan Africa – the two regions where the challenges of achieving the MDG objective of halving world poverty by 2015 are greatest.

The Consortium has made substantial progress, using a mix of qualitative and quantitative methods in researching the education and poverty nexus. Household surveys have been conducted in Ghana, India and Pakistan, each covering more than one thousand households. The resulting data are being used to examine the ways in which education is linked to subsequent social, economic and labour market outcomes. Separate qualitative enquiries examine related questions. Research training has been conducted in each of the four countries, and a new open-learning resource – a facilitator's manual for qualitative research training – is a direct result of RECOUP capacity-building activities.

RECOUP research is organised around three themes: human and social development outcomes of education; economic and labour market outcomes of education; and the outcomes of partnerships among government, aid donors and households.

The first theme considers the ways in which education influences particular spheres of poor people's lives. We investigate how young people describe their educational experiences, their strategies for survival, autonomy and social mobility, manage domestic and citizenship rights and responsibilities,



RECOUP Ghana Mid-Term Conference

sustain their own and others' health, and start families – in the context of the cross-cutting impacts of gender and disability.

Emerging findings suggest new thresholds: for example, married women in disadvantaged communities from India's scheduled and backward castes need about 10 years of schooling before changed aspirations concerning partners, married life and relationships with mothers-in-law emerge. In Pakistan, households with better educated women discriminate less against the education of their daughters, but only those with more than 10 years of schooling can counter conservative attitudes and cultural norms sufficiently to enhance female employment.

Most young people with disabilities in our study-countries have little involvement with formal education, but considerable variations in access exist for those with different kinds of impairment. Using qualitative research we examine how these young people and others around them perceive their lives. Contrasts are clear across countries and cultures. For example, whereas Ghanaian youth living in poverty expect schooling to provide social contact with 'richer' families who might offer employment, to 'open their minds', and help with jobs, Kenyan youth are frustrated at the failure of schooling to help them 'belong' to society and create change.

As education systems expand the economic rewards from acquiring particular levels of schooling tend to change. Thus, the qualifications required for many jobs in Europe have risen over the past couple of decades: many non-technical jobs which would have taken school leavers in earlier years are now available only to graduates. Similar trends are evident in developing countries. For example, whereas the completion of primary schooling would previously have been enough to gain entry to unskilled jobs, primary graduates in Africa and Asia

increasingly face unemployment, or an insecure life of self-employment for low returns. Our research confirms the declining returns to basic levels of schooling in many countries. But this does not undermine the importance of public universal funding of primary schooling. On the contrary, the externalities of education imply that widely-held numeracy and literacy is, if anything, more important where people are increasingly excluded from opportunities in the formal job market. Of course, the circumstances of individual families differ, and the mere presence of positive returns to education does not necessarily mean that all income groups will seek to acquire it. RECOUP research using Indian data shows that positive returns to education influence school attendance much more amongst girls and non-poor boys, than amongst poor boys. For many of the latter, the negative income effect of staying in school longer seems to outweigh the positive impact of the prospect of increased earnings.

Recent work in Ghana, using the RECOUP household worker survey, indicates that education and training are to some extent substitutes in lower echelons of the labour market: the results show that apprenticeships undertaken by those with no formal education increase earnings by around 50%, but that such returns decline as education levels increase. In India, training programmes also bring only selective benefits. Preliminary insights suggest that there are major issues concerning who gains access to training, even where it is informal, but that there is little likelihood of such informal training bringing a release from poverty *on its own*. Incomes are critically influenced by other aspects of access to labour market opportunity.

Differences in the ways in which schools are financed and organised may affect their effectiveness, and several projects under the 'partnership' theme investigate aspects of this question. The failure of state schools to provide adequate schooling is a serious hindrance to

achieving the MDG targets, and the private sector is sometimes felt to hold greater promise, even for the poor. Exploring this, RECOUP research sets out a typology for identifying economic and political aspects of public and private provision, utilising Hirschman's concepts of 'exit' and 'voice' (one hypothesis being that in the case of private education parents may be more easily able to influence in-school practice and performance than in the state sector). In each country this typology is used to investigate how new models of education, such as PPPs, may affect current educational provision for the poor.

In other work, data from a schools survey in India show that private schools get significantly better academic results by relating pay to achievement, whereas government schools do not. In Pakistan, the academic success of students appears to be improved much more by process variables (what teachers do and say in class) than by their own qualifications – even though reward structures are based mainly on the latter rather than the former.

In all of our partner countries, the implementation of educational expansion and reform at primary and secondary levels has had mixed success. Studies of the ways in which the sector has been financed suggest no clear relationship between expenditures, enrolment trends and other indicators of educational performance, nor is the role of aid donors in this process easy to track. Detailed qualitative research on these matters is underway, and more subtle results of the interface between policy dialogue and educational change and reform are being revealed.



RECOUP Indian Mid-Term Conference

These and other results have been discussed by RECOUP staff in presentations made at national and international research conferences, and at invited seminars in DFID, the World Bank and the Indian Government. RECOUP mid-term conferences have been held in Ghana, Kenya, India and Pakistan, attracting representatives from the donor community, government policy makers, academic and research communities, as well as members of civil society.

The CEID has an extensive publications programme, including a peer-reviewed RECOUP Working Paper Series and a Policy Briefs Series. CEID also hosts a forthcoming book series entitled Routledge Studies in Education, Poverty and International Development (edited by Madeleine Arnot and Christopher Coldough). The RECOUP web portal, which includes a dedicated blog run by our researchers, is becoming an important channel through which research is disseminated, with feedback generated from a growing volume of web users. The Centre will continue to expand the scope and geographical coverage of its research over the coming years.

More information about our projects, activities, and partners and copies of our publications can be found on the RECOUP website at <http://recoup.educ.cam.ac.uk/>

COURSES NEWS: Secondary PGCE

Exploring interrelationships between being a teacher educator and being a researcher

The 2007–8 Ofsted report on the Cambridge secondary PGCE included the following:

.....
Through taught sessions, and the careful staging of the assignments, [trainees] learn how to critically review educational research. This contributes to their ability to reflect perceptively on their practice and their strong grasp of subject pedagogy. Trainees and their mentors find the final assignment, based on school-based research, exceptionally challenging, both intellectually and in terms of their time. However, they are also aware of its benefits, particularly in highlighting the value of research for improving professional practice.
.....

Although these comments are complimentary, their matter-of-fact style belies the complexity of interrelationships between teaching and research which form the texture not just of trainees' PGCE experience but our own as well. At an Awayday, the secondary PGCE team explored the nature of those interrelationships within our practice as teacher educators and educational researchers.

The day began with a presentation by **Mike Younger**, whose starting point was four areas identified nationally as being 'less strongly represented' within submissions to the 2008 RAE:

- i. teacher education
- ii. assessment
- iii. classroom learning and effective teaching in subject disciplines
- iv. school-based, subject specific research.

The issue provided an interesting angle from which to consider the challenge of how to increase the profile of our work nationally and internationally. Mike

outlined the Faculty's intention to forge closer links between teacher education and training in the UK and parts of Africa. A particular concern is to explore to what extent research training can and should be part of all initial teacher education. Three secondary team members shared ideas they will present at a conference in Ethiopia. Their contributions form part of the Faculty's broad aim to characterise the essence of successful practice and explore whether it is transformable or sustainable in teacher education contexts elsewhere.

The three research projects are firmly rooted in PGCE/MEd course teaching. **Christine Counsell's** research is a hermeneutic-phenomenological study of history subject mentors' experience of using professional and academic literature with trainees in the school setting. The work arises directly from her role as a PGCE history subject lecturer working in partnership with mentors in local schools. **Sue Brindley's** study of professional knowledge and teacher research is an exploration of the competing constructions of teacher knowledge using critical and narrative theory. Her focus is how teachers as researchers develop professional knowledge which takes firm root when it is 'owned' rather than 'imposed'. **Mark Winterbottom** is using structural equation modelling to explore the hinterland of what trainees value in their assessment practices and how their views change during their PGCE year. **Elaine Wilson** will also be involved in the Ethiopia conference and is researching how new teacher knowledge is created using new technology.



Trainees attending a Drumming Workshop

Some secondary team members use other media to disseminate their work. **John Finney** outlined an investigation with music PGCE trainees into what happens when 'informal' pedagogies are used within music education, for example when trainees teach one another how to play a new musical instrument. John's work is published on the *Music-ITE* website, a teacher education online network, with video-clips and accounts of how trainees' learning informs their assignments. John raised the interesting question of whether trainees' inclination to 'codify' such practices renders them 'formal'.

Other team members shared their research in group discussions, addressing questions about types of interrelationships between their research and their teacher education practice. Research has different objects with consequent implications for relationships. We offer a few brief examples here.

Several projects have a key educational concept such as pedagogy or professional identity as their object. One such example is [Richard Hickman's](#) exploration of what art and design teachers do in terms of pedagogy that might inform the classroom practice of other subject specialists; another is [Steve Hunt's](#) study of the development of the professional identity of classics teachers during the PGCE year. This kind of research invokes reciprocal relationships between teaching and research, encouraging participants (including trainees) to share ideas and question their own practice.

Other research has trainees' experience of learning as its object. [James de Winter](#), [Mark Winterbottom](#) and [Elaine Wilson](#) are running a project with science trainees learning how to use new technologies such as wikis, video and podcasting to support students' learning. [Morag Morrison's](#) work with trainees in drama and professional studies uses applied theatre strategies such as forum theatre to explore how conflict management competency can be developed in professional contexts. Some school-based colleagues are researching mentors' experiences of learning. [Martin Lee](#), seconded mentor and professional tutor, is studying teacher leadership, the concept of communities of practice being one of several emerging themes. [Ann Dodgson](#) has researched peer-mentoring and its impact on her practice as professional tutor. Here, teaching and research interlink as groups feel their way forward in joint exploration.

Funded research leads to other types of interconnection. Examples of such research include [Michael Evans' and Linda Fisher's](#) DCSF-commissioned study into the impact of government initiatives on the provision of modern foreign languages at Key Stage 3, or [Bill Nicholl's](#) Gatsby-funded project which involves a two and a half year intervention to help teachers enable their students to

generate more creative ideas in design and technology. A complex but healthy tension may arise as emerging themes are discussed in subject studies and sometimes conflict with trainees' classroom experience. Such situations compel trainees to adopt a critical stance towards policy and practice. It is, in part, how they develop an informed professional voice, learn to engage critically with literature and begin to ask their own research questions.

A fourth object of educational research is students' own learning and experience of being taught in schools. Despite the RAE's suggestion that classroom learning and effective teaching in subject disciplines are under-represented, they lie behind the research all of us in the team are currently doing. Some of our research, however, brings the students' perspectives to the fore, as is the case with all our trainees' own research. Such studies include [Michael Evans' research](#) into online forums in different countries and how they provide scaffolding for learning in other languages, [Gabrielle Cliff Hodges' study](#) of factors which shape the development of students who are habitual and committed readers, and [Liz Taylor's research](#) into how Key Stage 3

geography students develop their understandings of distant places. [Raza Shah](#) adopts a cognitive approach to investigating the accessibility of schematic knowledge structures and their impact on mental 'fixation' by exploring the impact of analogical reasoning on creative cognition in design and technology. Student-focused research of this kind informs our teaching in sometimes very immediate ways: tutors share their use of particular research methods and trainees take them up – even transform them – within their own teaching and research. The opportunity to share research with trainees often yields new insights which feed back into that work.

It is difficult to characterise the complexity of these interrelationships (and there are, of course, others). Nevertheless, asking questions about them is well worth doing, something which other groups within the Faculty – and beyond – may find as interesting as we have.

[Gabrielle Cliff Hodges](#) is Senior Lecturer in Education

For more information on the secondary PGCE see www.educ.cam.ac.uk/pgce/secondary/



The Science PGCE wiki

PEOPLE

Paul Andrews



I started to write these biographical notes in a fairly conventional manner when I remembered

the extent to which serendipity rather than planning has influenced my professional life. For example, my childhood was spent in a politically aware family in which left-wing values were privileged, and one of the earliest comprehensive schools where I performed adequately but never with any real enthusiasm. As a young child I never quite understood why schools seemed so obsessed with the maintenance of arbitrary norms and so never really engaged with what, if anything, was offered me.

These familial and educational influences, once I decided on teaching as a career, led me serendipitously to Telford; a new town built to accommodate families *rescued* from the slums of the industrial West Midlands. Here, I thought, somewhat immodestly, I would be able to address social and educational injustices from within. I stayed in Telford, in various teaching and advisory teacher roles for nearly fifteen years. Always I encouraged, at least that is the recollection I construct twenty years after the event, others to see mathematics as a connected body of extraordinary and exciting relationships distinguishable, by means of the unique processes of proof, from all other forms of knowledge.

While working as an advisory teacher a colleague alerted me to two advertisements for jobs in teacher education and I applied for both. Simultaneously a nationally well respected colleague did the same. As it transpired, one institution invited only him for interview while the second invited us both. He went for interview at the first institution and, having been offered the job, withdrew

from the second before lunch. The same afternoon I got the job at the second institution. Without such serendipity I may never have left Telford.

During my ten years at the Manchester Metropolitan University I worked on initial teacher education courses, trying to encourage others to see mathematics as more than disconnected skills and procedures. Serendipitously a colleague initiated an exchange project with a Budapest university and I made an observational visit in 1994. In Hungarian classrooms I saw such contrast to the English that comparative research and the uncovering of practical and theoretical insights has been my primary research goal ever since. In these Budapest classrooms I saw ordinary children, in mostly mixed ability classes, working on sophisticated and challenging mathematics in collective rather than individual ways. Nowhere did I see children conforming to arbitrary norms. There were no school uniforms. Children used their teachers' forenames and the school day was intelligently structured with fifteen minute breaks between every pair of lesson.

A family crisis necessitated a move south, leading serendipitously to a job at the

School of Education and the eventual move to Hills Road. During this period my work with graduate students increased; a process facilitated by my acquiring responsibility for the Faculty's MPhil programme. Working with graduate students, most of whom are from overseas, is a great privilege and one which marries well with my interest in how other educational systems structure learning. Recently I directed an EU-funded project, drawing partly on sequences of video-taped lessons, which examined the ways in which English, Flemish, Finnish, Hungarian and Spanish teachers conceptualise and present mathematics to their students. This led to a number of refereed and professional publications highlighting, sadly, the intellectual and didactical paucity of many English mathematics classrooms.

My comparative work continues. Currently I am negotiating an extended project with colleagues from fifteen European countries; unless we understand how others construe mathematics and justify its privileged curricular position, warranted and implementable alternatives are likely to remain hidden.

Paul Andrews is a Senior Lecturer in Education



Paul Andrews and Zsolt Lavicza at the CamERA Conference

Linda Hargreaves

Writing this on World Metrology Day (May 20, 2009) I feel bound to admit to my belief in the value of measurement and direct observation, and the attempt to measure and observe events in educational settings.

I owe this methodological mix to three things (in roughly chronological order): first, to my two psychology degrees, which provided the methods; secondly, to the two research-aware Leicestershire and Leicester headteachers who respectively encouraged my naïve attempts at action research, and enrolled me on Joan Tough's 'Listening to children talking' project; and thirdly to being introduced to the now famous ORACLE project, and Maurice Galton, on my MA (Ed.) (Psychology) course at Leicester University School of Education. The revelations about children in my class that emerged from a simple time-based observation task on the Joan Tough project, and the mismatch between teachers' strategies and tactics uncovered by ORACLE convinced me that such data were vital to our appreciation of educational processes. They expose otherwise unsuspected educational anomalies and (with the help of analysts such as Dr Tony Pell) enable us to assess change in practice, or its absence, over time and place.

I'm equally keen, however, to reject the typical standardised measurement of attainment as sole indicator of educational success. For my PhD I sought to devise and test an authentic yet quantitative way to assess children's study skills and graphicacy within a stable meaningful, if fictional, context, in preference to the de-contextualised pot-pourri of items that constitute so many tests.

From these beginnings, and having been trained as an ORACLE observer, I was awarded a (then) SSRC studentship linked to a (then) DES-funded national



Mark Cunningham, Mandy Swann, Donald McIntyre, Caroline Oliver, Linda Hargreaves (standing second from right), Penny Turner, Ann Curtis and Bev Hopper

observational survey of educational provision in small primary schools. From that came three further research projects on the curriculum in small rural schools. I subsequently convened a symposium on rural schools' research at the Seville ECER¹ conference (one distinguished participant being Ciaran Sugrue), and from that beginning, set up ECER's Network 14 'Communities, Families and Schooling in Educational Research'. The network continues to flourish and a long-gestated special issue of the IJER on rural schools research by Net 14 members, edited by Rune Kvalsund and me, is about to appear in print.

As a research associate and later co-director of several major observation based projects including the study of primary-secondary transfer in the ORACLE 20 years on project, has enabled me to work alongside some eminent educational researchers, including Wynne Harlen and Janet Moyles. After coming to Cambridge in 2000, I have worked on the ESRC-TLRP Grouping and Groupwork project with Maurice, Peter Blatchford and Peter Kutnick. Our observation findings appear in the current special issue of the Cambridge Journal of Education on collaborative groupwork.

So how does the Teacher Status Project fit into this research career, a focus hardly susceptible to direct observation? My

involvement was motivated by the sense of injustice about the low status of primary and early years teachers, despite their graduate qualifications and training, and I wrote the proposal to include primary colleagues in the Educational Research 3-13 group based at Homerton, including Bev Hopper. The photograph shows some of the team celebrating the end of the project. It shows too how quickly things can change irretrievably: since the picture was taken in 2007, we have mourned the loss of Donald McIntyre and Penny Turner. Amongst many findings that of most concern is the institutionalised racism in the teaching profession that limits the achievement of the academic, as opposed to pastoral, ambitions of many ethnic minority teachers, and of African Caribbean teachers in particular.

Finally it's been my privilege to be a member of the Cambridge Primary Review team directed by Robin Alexander. The final report due out later this year should have a long-term impact on primary education. Cambridge has also given me the chance to supervise masters and PhD students whose originality and application never cease to amaze me.

I have two sons both of whom have successfully completed their PhDs this year, thus giving me recent insights into the trials and tribulations associated with that feat. Together with my husband, music psychologist David J. Hargreaves, they make a formidable jazz trio. Meanwhile, I sing in one concert a year with the Midland Festival Chorus, and, this year, the Bournemouth Symphony Orchestra (Verdi Requiem, October 10th, Worcester Cathedral), and enjoy bird watching, gardening and concerts.

Linda Hargreaves is Reader in Classroom Learning and Pedagogy

¹ European Conference on Educational Research

STAFF PROFILES



Viv Brans

Viv is the Faculty's Reprographics Technician, and produces everything from lecture hand-outs to course handbooks.

Viv has worked for Homerton College and latterly the Faculty of Education for 29 years. The secret to staying for so long has been the variety of the work. 'There is no average week – every day is completely different from the one before, and each week from the one before that. It's very diverse, and that's what has kept it interesting.'

In the time that Viv has been working here, the creation and development of the Faculty is just one of the things that has changed. Now based in the Mary Allan Building, Viv and her extensive kit has occupied various rooms, and though everything around her may have changed, Viv is glad that she remains within the Homerton site. 'They're beautiful grounds with wonderful gardens and so much open space, it's much nicer than being stuck in a pokey office in the centre of town.'

The fact that the photocopiers are used by all staff allows Viv to see surprisingly large number claiming that the jam/blockage/toner spill 'wasn't me'. One now Very Senior Member of Faculty, was unlucky that Viv walked into the photocopying room just as he was pressing down on a particularly thick book in order to try and minimise the

page curl. 'There was a enormous cracking noise, and then the glass screen smashed, filling the photocopier with broken glass and the book. And he turned and saw me, and the look of absolute horror on his face turned into that of fear of having been caught!'

Outside of the Faculty, Viv enjoys spending as much time as possible with her precious grandchildren, gardening, recycling and looking after her cats and tortoises. Viv started recycling long before it was fashionable – by saving things that other people want to throw out. 'I can't go past a skip without having a look inside to see what there is. I've had two working Dysons, lots of things for the gardens, even blackout material from the Garden House Hotel!'



Helen Wilson

Helen is Course Assistant in the PGCE office, providing administrative support to members of the Secondary PGCE Teaching Team, plus anything else that needs doing!

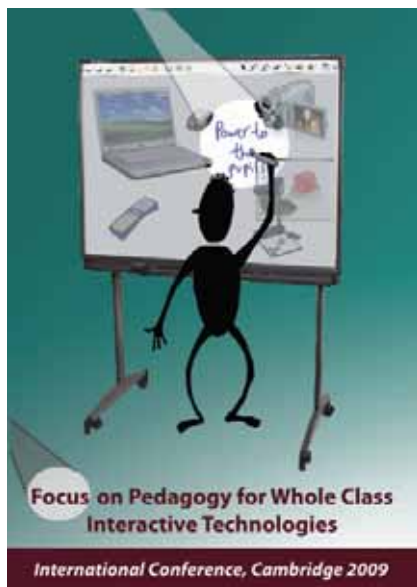
Helen has worked for the Faculty of Education for the last year and a half, joining us after a stint working in the Recruitment Department for London Lines – which operated 3 rail franchises – in London. In between leaving there and starting at the Faculty, Helen worked part time in the church office at St Andrew the Great Church, Cambridge.

For Helen, the Faculty really comes alive when the secondary trainees are on site. After spending so much time working on their files and with subject lists she says that 'it's good to put faces to names'. There may be more to do when PGCE lecturers are all in and needing resources, but for Helen it's great because 'there's a bit more of a buzz about the place.'

Within the PGCE office, Helen is famed for her baking skills, with all manner of beautifully iced cakes appearing to celebrate birthdays, new staff arrivals, staff departures and whatever other excuse that the team can come up with to get their hands on more cakey goodness. When she is not being asked by her colleagues to bake cakes, Helen fills her time, 'flying kites, listening to music, cooking, playing the double bass in a local orchestra, following the fortunes of the England cricket team, baking cakes, a bit of embroidery and knitting (due to baby boom amongst my friends), did I mention baking cakes?!'

And these are all the activities that she undertakes around her commitments to a wide range of church activities – which range from singing and playing in the music group through to leading on a Christian Summer Venture for 11–14 year olds in the summer. Working with children and working in the PGCE office leads many people tell Helen that she should become a teacher, but 'having parents that are teachers, and seeing the massive work-load that our trainees have, I'm not persuaded... ..yet!'

UPCOMING EVENTS



21 June–4 July
The Commonwealth Centre for Education Cambridge Summer School
See p3 for more information on the CCE.

29–30 June
Research Into Teaching with Whole class Interactive Technologies (RITWIT) Conference.
See www.educ.cam.ac.uk/events/conferences/ritwit/

3 July
Undergraduate Open Day
For students interesting in applying to Cambridge to study Education. Contact ugrad@educ.cam.ac.uk for more details.

13–17 July
Sutton Trust Summer School
For students from non-traditional backgrounds thinking about studying at Cambridge.

NEWS BITES

Hilary Cremin will lead an ESRC Seminar Series between October '09 – July '11 looking into Inter-disciplinary perspectives on restorative approaches to reducing conflict in schools: exploring theory and practice from cross-national and international settings Her co-investigators are Gillean McCluskey (Edinburgh University) and Dr Edd Sellman (Nottingham University).

Elaine Wilson, Ros McLellan, Hilary Cremin, Christine Counsel and Mark Winterbottom gave papers at the First International Conference on Educational Research for Development which was being held at Addis Ababa University from 13–15 May.

Pam Burnard gave the Keynote Address at the 3rd International Conference of the Greek Association of Primary Music Education Teachers in Athens on the 9 May.

Hilary Cremin and **Carolynne Mason** alongside Paul Warwick from University of Leicester and Tom Harrison from CSV (Community Service Volunteers) have been awarded the Society for Educational Studies National Award.

Radio 4's Word of Mouth, spent a programme focussed on the Cambridge Latin Course, which is run by the **Cambridge School Classics Project.**

The Student prize for a paper presented at the BAICE conference Glasgow, 2008, was won by **Arathi Sriprakash** for her paper: *Joyful learning in rural Indian Primary Schools: An analysis of social control in the context of child-centred discourses.* Arathi is a current PhD student supervised by **Madeleine Arnot.**

Maria Nikolajeva received the Distinguished Scholarship Award 2009 from the International Association of the Fantastic in Arts.

The **Undergraduate Education Degree** was ranked as the top course in Education nationally by both the *Guardian* and the *Times* newspapers.

For all the latest news see www.educ.cam.ac.uk/news/

PUBLICATIONS

Selected Books & Articles

Acts of Reading: teachers, text and childhood (Trentham). **Morag Styles** and Evelyn Arizpe (Ed.). Contributors include: **David Whitely**, Eve Bearne, Victor Watson, Janet Bottoms, Judith Graham and Vivienne Smith.

'Cambridge Handbook of Educational Abbreviations and Terms' (CHEAT), (Faculty of Education, Cambridge) **Richard Hickman.** Available www.educ.cam.ac.uk/people/staff/hickman/CHEATbyR_Hickman_2009_01_27.pdf

Mary James & Robert McCormick, (2009) Teachers learning how to learn, *Teaching and Teacher Education.* Available online 5 April 09.

VIEWPOINT



Maria Nikolajeva A Case for Theoretical Research in Education

In 1846, the French mathematician Urbain Le Verrier predicted the existence of yet another planet beyond the farthest known at the time, Uranus. The forecast was based on exclusively theoretical calculations, immediately confirmed by empirical observations at Berlin Observatory (incidentally beating Cambridge scholars by merely a couple of weeks). The new planet, named Neptune, was among the very first natural phenomena discovered at the tip of the pen rather than by field work. Today, major findings in natural sciences are results of theoretical contemplation, subsequently, but not necessarily, supported by laboratory observation.

I am using the Neptune example to make a case for theoretical research in education. In my own field, children's literature, I am profoundly interested in what appeals to young readers and why, without ever going to schools to find out. My point of departure is the implied reader, the reader inscribed in the literary text, the reader that the text presupposes can understand and appreciate it. This has nothing to do with publishers' recommendations or with authors' declarations about who they write for. This has fairly little to do with what teachers believe suitable for their pupils or what children choose for themselves if given a chance. It is purely theoretical scholarship that I find not only legitimate, but extremely important for further empirical research, just as I find empirical research indispensable for theoretical pursuit. The two directions should ideally inform and support each other. I am repeatedly pleased to hear how my ivory-tower studies of children's texts and their implied readers have been helpful not only for practitioners and teachers in training, but also for

education researchers doing field work 'out there', in real life.

There is nothing arrogant in my approach. I am simply convinced that both lines of enquiry are equally significant and that all scholars should preferably do what they are best at. Ten years ago I was co-leading a research project titled *Children's literature: pure and applied* that brought together scholars and research students from both directions, and that proved exceptionally fruitful in bridging the notorious 'literary-didactic split', the gap between book people and child people. This experience made me all the more confident that theoretical and empirical research was by no means mutually exclusive or that the one should be given priority over the other. After all, we have the same objective: the benefit of our children.

Maria Nikolajeva is Professor of Education

www.educ.cam.ac.uk/people/staff/nikolajeva/



A representation of the solar system by Toby Ilett-Woolmer