2007

‘Tribes TLC’: Teacher education students’ perceptions

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INTERNATIONAL SOCIETY FOR TEACHER EDUCATION

27th Annual International Seminar

The Future of Teacher Education and Professional Development

PROGRAMME

Institute of Education, University of Stirling, Scotland

24–30 June 2007
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1. Welcome to ISTE 2007

Professor Richard Edwards, Head of the Institute of Education

On behalf of the Institute of Education at the University of Stirling, I would like to extend a very warm welcome to all participants in ISTE’s 27th International Seminar. We were delighted that ISTE chose to hold the Seminar here, and to have the chance to meet so many colleagues from around the world. We know that many of you will be meeting again with old friends from previous seminars, but hope you will take the opportunity to make new friends too, among first timers to the Seminar, and among members of staff at the Institute of Education and at the University.

The University of Stirling was founded by Royal Charter in 1967 on the historic Airthrey Estate, close to Bridge of Allan and two miles from the centre of Stirling, which received city status in the Queen’s Golden Jubilee year. Set in the shadow of the Ochil Hills, the campus is situated on a magnificent 310 acre estate, centred around a loch and the 18th century Airthrey Castle. The University undoubtedly has one of the most attractive campuses in Europe. There are currently 9000 students (7000 undergraduates and 2000 post-graduates), from 80 countries around the world.

The University is organised academically into 19 departments and has established itself as a major research-led institution with a fine reputation for teaching. It is ranked in the top ten for the UK’s best student experience, for teaching and assessment and for graduate employability.

The Institute of Education is one of the University’s largest departments, with 152 members of staff and 1260 students. We are currently ranked number 1 among Scotland’s education departments, and number 3 across the UK as a whole. We are a research-led centre for excellence, with a focus on initial teacher education, continuing professional development of education practitioners, lifelong learning and language learning and teaching.

The theme of this year’s ISTE Seminar, The Future of Teacher Education, has a particular resonance for the work of the Institute of Education at the start of the 21st century. This is an exciting period in Scotland’s history, as devolution and the establishment of the Scottish Parliament have heightened Scotland’s commitment to a high quality education system, exemplified by the new Curriculum for Excellence which aims to ensure that all Scottish children leave school as successful learners, confident individuals, responsible citizens and effective contributors. Such goals present significant challenges for teacher education, in a period where globalisation, new technologies, democratic citizenship and social inclusion ensure that contexts for learning are changing rapidly. Thus the topics of papers to be presented at this year’s seminar – including new directions in teacher education, new pedagogies, early professional development, teacher education for pre-school education, post-school and vocational education, educational leadership, and continuing professional development: making a difference to practice – are all of considerable significance to colleagues working here.

We look forward to discussing these issues with you over the coming week, at the plenary sessions, in paper groups, or over a coffee or a meal – or even while dancing at the closing ceilidh.

With very best wishes for a successful Seminar

Richard Edwards
2. Message from the ISTE Secretary General

Janet Powney

Welcome. At last ISTE has come to Scotland and now I really appreciate the dilemmas experienced by all previous seminar convenors – how to achieve a balance between a serious work programme, essential networking and social opportunities and to show the best of your country. There is never enough time but our team of organisers hopes that you will all enjoy at least some of each and perhaps extend your stay to see more of beautiful Scotland.

This interplay between professional and social activity is at the core of ISTE. It has enabled participants to be actively and creatively involved throughout the seminars. We draw on each others’ experiences and ideas for their relevance to our own professional practices. Everyone, new and established members, contributes to the success of each seminar. As usual, our agenda this year is very full with an exciting list of abstracts promising excellent discussion and debate on the futures of teacher education and professional development. Current themes emerging from many countries include supporting teachers in culturally diverse and changing societies and working with, and within, the constraints and opportunities of new technologies. Our papers include many examples of enquiry based approaches to teacher education and there is continuing debate over the tensions around governments’ control and teachers’ autonomy.

We also enjoy the support and professional contributions of the Educational Institute for Scotland (EIS), our largest teachers’ union. Long standing partnerships and joint professional activities across continents have emerged from previous ISTE meetings and hopefully will be outcomes from this one as well.

It also seems appropriate for me that this 27th seminar, my last as Secretary-General of ISTE, is in the UK as the first one was all those years ago. It has been a tremendous privilege to have been elected to this post where one can draw on the support of all ISTE members. I have enjoyed marvellous contacts with colleagues world wide and will miss the flurry of international emails arriving daily. I am proud that ISTE is continuing to promote through the improvement of teacher education, the full educational development of every individual as a basic human right.

Over the last four years, we have improved our communications through our website (courtesy of Alex Fung and his colleagues) and Warren Halloway and Bill Driscoll are able to send our newsletter to the majority of members through email. We have maintained our financial probity (with the invaluable work of Johan Borup). Our journal, JISTE, has even better content (due to Cathy Sinclair, Sybil Wilson and their colleagues) and a glossy format (again thanks to Johan). Each generation of ISTE activists builds on the foundations established by their generous predecessors.

A special welcome to Stirling to our new Secretary-General, Lotte Rahbek Schou. May she have every success and enjoyment in leading ISTE for the next three years,

Janet Powney
3. ISTE and the LeOra Cordis Memorial Trust

Bob O’Brien

The LeOra Cordis Memorial Trust

LeOra Cordis, Professor of Education at University of Regina, Canada was a foundation member of ISTE and had become a prominent advocate for Early Childhood education being within the range of interest of other members of the society. She also took up with characteristic enthusiasm the ambition of some members to find the means of having participants from more affluent economies subsidizing ISTE seminar participation by members who make considerable financial sacrifices to register from time to time. LeOra’s death in 2000 was a cause of regret among her ISTE colleagues from many parts of the world. Hence the decision to name in her memory the planned ISTE trust to support teacher educators from developing countries to attend ISTE seminars.

The idea of a charitable trust fund had developed gradually in the second decade of ISTE culminating in a proposal at Canterbury England in 1999 to establish an ISTE Trust to raise funds to help ISTE members from developing countries to participate in future ISTE Seminars. Bob O’Brien guided ISTE through the formal stages of establishing the Trust with proper safeguards that would seek funds from various sources and distribute them to ISTE members from developing countries according to well considered and monitored principles.

The objectives of the Trust are:

a) the advancement of the objectives of ISTE;

b) the maintenance and management of funds or real estate or other property transferred to the trust by the Settlor;

c) application of the LeOra Cordis Memorial Trust funds for the benefit of beneficiaries and not for the private pecuniary benefit of any individual person.

The Trust is managed by the Chair (currently Bob O’Brien) and Trustees appointed by the Secretary General. Trustees consider policy relating to the building of the Trust and guidelines for seminar convenors and their planning committees about any distribution of income that may accrue.

In 2002 the LeOra Cordis Memorial Trust Fund interest and dividend money was used for the first time to pay the registration fee of six members from developing countries who wished to attend the 22nd Seminar in Denmark. Since then the Trust has been able to give this limited amount of support to further members from developing countries to participate in future ISTE Seminars. In Stirling to a few non-members from countries with low GDP. The Trust funds are only used to pay registration fees and do not cover travel, accommodation or membership fees. These are the responsibilities of the participant.

Applications for support are passed on by Seminar Convenors to the Trust. Trustees consider and make recommendations through email contact. This seems to work very well.

The Trust funds come from a small proportion of each Seminar’s registration fees as well as further generous individual contributions by members or their organisations. The endowment is now up to nearly US$25,000.00 but only the interest is available for dispersal each year.

After the official inception of the LeOra Cordis Memorial Trust Fund in 2001, the endowment grew dramatically but since then growth has slowed down.

All members were, and still are, invited to make a contribution to the Trust Fund. Even a small additional contribution can make a difference to colleagues in less fortunate professional situations.

Bob O’Brien
4. Keynote Presentations

The Early Professional Learning Project (EPL)

The project is led by Jim McNally, Professor Peter Cope and Professor Nick Boreham, University of Stirling and Professor Ian Stronach, Manchester Metropolitan University.

One of a number of large research projects within the UK Economic and Social Research Council’s Teaching and Learning Research Programme, this research aims to develop a model of how beginning teachers learn to teach, based on their actual experiences, and to apply this to the enhancement of competence-based systems of early professional development. Two key features of the research are the use of practising teachers as researchers and the development of five indicators of professional performance. These will feature in the EPL session as presentations and posters, with the opportunity for participant engagement.

The teacher’s role in transition

Dr. Lotte Rahbek Schou, Danish University of Education has worked as an active researcher at The Danish University of Education in Copenhagen, Denmark, since 1988. As a member of the research program Ethics and Political Education her writings have mainly been themes related to ethics, justification of education, democracy and education, and Bildung theory.

Increasingly, international comparative studies have influenced education across the world. It is now clear that many governments have introduced measures to assess schools as well as individual students through continuous national testing, report cards on every child, and transparency of the national results. For example, in Denmark, the consequence has been an attack on the traditional classroom teacher. According to leading politicians and policy makers, the teacher must now become a specialist teacher similar to those found in other countries. This has further implications for teacher education where the objective is supposed to be a new teacher education project that the Government prepares as the final assault on the classroom teacher’s autonomy. What are the consequences of this shift for teacher education, and how should teacher educators respond?

Developing Educational Leadership in the 21st Century

Dr Jenny Reeves, University of Stirling, has worked in the field of Continuing Professional Development, with a particular focus on leadership and management, as lecturer and as National Development Officer for the Scottish Qualification for Headship. She is currently Director of Continuing Professional Development at Stirling’s Institute of Education.

This talk explores the implications that changing views of the nature and purpose of education have for the development of educational leadership in schools. In particular it focuses on what we mean by ‘shared’ or ‘distributed’ leadership and the current and future distribution of agency within school communities. Based on work using practice-based leadership development in Scotland and South Africa it identifies some of the structural and cultural
parameters influencing the practice of leadership in schools and proposes changes in the way we think about and provide opportunities for professional development as a result.

Global trends in teacher education: Placing the work of the General Teaching Council for Scotland in a global context

Matthew M MacIver was appointed as Chief Executive/Registrar of the General Teaching Council for Scotland in 2001 having previously been the Depute Registrar (Education) since 1998. He was Head Teacher of Scotland’s oldest school, the Royal High School in Edinburgh and prior to that was Head Teacher of Fortrose Academy in Highland Region. In February 2006 Mr MacIver, a native Gaelic speaker, was appointed as Chair of Bòrd na Gàidhlig, the body which promotes the Gaelic language and culture in Scotland.

Mr MacIver has been involved in developing initiatives in Scottish education and was instrumental in developing issues relating to teaching professionalism at UK and international level. He set up strategic meetings of Chief Executives and Conveners of the GTC 5 Nations and these are now seen critical in formulating policies. In June 2005 he organised the first International Teaching Councils Conference held at Clerwood House.

This presentation will explore issues like mutual recognition and the good and bad effects of globalisation on teacher education, placing the work of the General Teaching Council for Scotland in a global context.

21st Century Approaches to Professional Development

Ewan McIntosh, of Learning & Teaching Scotland, the main organisation for the development and support of the Scottish curriculum, is a teacher and social media specialist advising on ways in which social media – blogging, podcasting, wikis, gaming, and other emergent technologies – can be harnessed for public service and educational management, and used to improve learning.

Online communities of practice have emerged both under official guises and in a more personalised, serendipitous fashion. Ewan McIntosh will take you through this changing landscape of professional development. We will begin with ‘official’ online services and communities such as the Modern Foreign Languages Environment (MFLE), run by Ewan on behalf of Learning and Teaching Scotland and the Scottish Centre for Information on Language Teaching and Research, to support Scotland’s modern languages teachers. We will then see how social collaborative media (blogs, podcasts, video) have started to blur the edges between the ‘official experts’ and impassioned professionals prepared to share their expertise and resources on their own personal online spaces, in just one click.
5. Social Programme

Sunday 24th June

Scotland and the Scots by Alasdair Macrae
Alasdair Macrae lectured in English literature at the University of Stirling until he retired in 2003. His academic work includes writing on modern poetry and a literary life of W. B. Yeats. Alasdair is an experienced speaker, used to introducing international audiences to Scotland through literature, history and pertinent anecdotes. He will draw on his knowledge of Scottish poetry and poets to illustrate his talk which promises to be informative, scholarly and entertaining.

Lecture Theatre B4, Cottrell Building 20.30-21.30

Monday 25th June

Early Professional Learning Project Reception and Tour of University Art Collection
A drinks reception sponsored by the Early Professional Learning Project will be held in Pathfoot Building. During this period, there will be opportunities for a tour of the University’s extensive collection of modern Scottish art.

Pathfoot Crush Hall 18.00-19.30

Wednesday 27th June

Tours to Wallace Monument and Bannockburn
The 13th and 14th centuries were a period of intense conflict as the English attempted to conquer and control Scotland. Stirling with its castle was of strategic importance in this struggle. Significant victories in the Scottish Wars of Independence were won by Sir William Wallace at the Battle of Stirling Bridge in 1297, and subsequently by Robert the Bruce at the Battle of Bannockburn in 1314. These are commemorated by the Wallace Monument which overlooks the University of Stirling, and by the Bannockburn Heritage Centre, just outside the city of Stirling. ISTE participants are invited to choose between a visit on foot to the Wallace Monument, with an opportunity to climb the tower and view the exhibits; or a guided open-top bus tour taking in the castle, monument and battlefield. Please sign up for one of these options at the ISTE office: C2X4/6. Places are limited and will be made available on a ‘first-come, first-served’ basis. Both tours will set off from the Queen’s Court bus-stop, outside the Cottrell building.

19.30-22.00

Friday 29th June

Institute of Education sponsored Ceilidh
Following the closing dinner on Friday 29th June, a ceilidh, sponsored by the Institute of Education at the University of Stirling, will be held to celebrate the end of the seminar. Ceilidh (pronounced “kay-lee”) is a Gaelic word for a social event, with music and dancing, for all to join in. Music will be provided by local ceilidh band, the Blackford Fiddlers.

19.30-23.00
6. List of Participants

Fauziah Abdul Rahim, University of Nottingham, England
Deborah Adeyemi, University of Botswana
Michael Adeyemi, University of Botswana
Augustus Adeyinka, University of Botswana
Ana Maria Albertin, Public University of Navarra, Spain
Sarah Alexander, Supply Teacher, Northampton, England
Ana Isabel Andrade, Universidade de Aveiro, Portugal
Obiora Anekwe, Auburn University/Tuskegee University, USA
Ann Battle, University of Maryland, USA
Ann Benbow, American Geological Institute, USA
Marie Josée Berger, University of Ottawa, Canada
Anne-Marie Bergh, University of Pretoria, South Africa
Richard Berlach, University of Notre Dame, Australia
Karen Bjerg Petersen, The Danish University of Education, Denmark
Mike Blamires, Canterbury Christ Church University, England
Johan Borup, University College South, Denmark
Kathryn Brooks, Butler University, USA
John Burnett, University of Plymouth, England
Shannon Butler, Weber State University, USA
Mike Carroll, University of Stirling, Scotland
Mary Chabeli, University of Johannesburg, South Africa
Yi-Fen Chen, Fo Guang University, Taiwan
Yu-Chieh Chin, Taipei Municipal Dun-Hua Junior High School, Taiwan
Tat Heung Choi, Hong Kong Baptist University
George Churukian, Illinois Wesleyan University, USA (retired)
Vic Cicci, Brock University, Canada
Maria Leonor Conejeros, Pontificia Universidad Católica de Valparaíso, Chile
Chris Cook, University of Hertfordshire, England
Valerie Coultas, Kingston University School of Education, England
Forrest Crawford, Weber State University, USA
Carmen Lucía Domínguez Aguilá, Universidad de Concepción, Chile
Janet Draper, University of Exeter, England
Tatjana Drogovic, Open University, UK
Anca-Felicia Dumitrescu, Romanian Institute for Educational Sciences
Helen Earles, Montclair State University, USA
Maria Emilia Engers, Pontificia Universidad Católica do Rio Grande do Sul, Brazil
Peter Ferguson, University of Minnesota, USA
Renée Forgette-Giroux, University of Ottawa, Canada
Victor Forrester, Hong Kong Baptist University
Alison Fox, University of Stirling, Scotland
Gordon Fulcher, Open University, UK
Olga Ganzen, Park University, USA
Maria de Lurdes Gonçalves, Universidade de Aveiro, Portugal
Peter Gray, University of Stirling, Scotland
James Greenberg, University of Maryland, USA
Darcy Gregg, Weber State University, USA
Audrey Gregory, University of Reading Institute of Education, England
Kristin Hadley, Weber State University, USA
Warren Halloway, University of New England, Australia
Kathleen Herndon, Weber State University, USA
Li-an Ho, Tamkang University, Taiwan
Richard Hooper, Idaho State University, USA
Marit Hoveid, Finnmark University College, Norway
Halvor Hoveid, Finnmark University College, Norway
Julie Hughes, University of Wolverhampton, England
Anna Hugo, University of South Africa
Sally Hunter, University of St Thomas, USA
John I’Anson, University of Stirling, Scotland
Julia Ibbotson, University of Derby, England
Gillian Inglis, University of Strathclyde, Scotland
Sherrie Jensen, Weber State University, USA
Hsun-Fung Kao, Tamkang University, Taiwan
Craig Kissock, Educators Abroad Ltd, USA
Ebru Melek Koç, Educational Sciences Institute, Anadolu University, Turkey
Cathie Lacey, University of Wolverhampton, England
Laura Lane, Park University, USA
Cathy Lawrence, Canterbury Christ Church University, England
LDM Oupa Lebeloane, University of South Africa
David Lord, University of Huddersfield, England
Colin Mably, Educational Visions, USA
Mokhele J S Madise, University of South Africa
Nasir Mahmood, University of the Punjab, Pakistan
Sehba Mahmood, Auckland University of Technology, New Zealand
Ra’ana Malik, University of the Punjab, New Campus, Lahore, Pakistan
John Maurer, University of New England, Australia
Anna Mazzaro, Montclair State University, USA
Kareen McCaughan, Brock University, Canada
Jane McMillan, Somerset County Board of Education, USA
Jim McNally, University of Stirling, Scotland
Joanna McPake, University of Stirling, Scotland
Annie McSeveney, Freelance Consultant, Scotland
Josef Mikl, Vienna University of Economics and Business Administration, Austria
June Mitchell, University of Strathclyde, Scotland
6. List of Participants, cont.

Louise Moulding, Weber State University, USA  
Hélène Müller, University of South Africa  
Vicki Napper, Weber State University, USA  
Mirna Nel, North West University, South Africa  
Elizabeth Newman, The University of the West of England, England  
Mapula Ngepe, University of South Africa  
Nkopodi Nkopodi, University of South Africa  
Bob O’Brien, ISTE, New Zealand  
Iddo Oberski, University of Stirling, Scotland  
Zuzana Petrová, Trnava University  
Val Poultney, University of Derby, England  
Janet Powney, ISTE, Scotland  
Fanie Pretorius, University of South Africa  
Kristin Radulovich, Weber State University, USA  
Lotte Rahbek Schou, The Danish University of Education, Denmark  
Jack Rasmussen, Weber State University, USA  
Morag Redford, University of Stirling, Scotland  
Jenny Reeves, University of Stirling, Scotland  
Ed Robeck, American Geological Institute, USA  
Cornelia Roux, Stellenbosch University, South Africa  
Peggy Saunders, Weber State University, USA  
Lai-Chu See, Chang Gung University  
Nuray Senemoglu, Hacettepe University College of Education, Turkey  
Jimoh Shehu, University of Botswana  
Debi Sheridan, Weber State University, USA  
Cathy Sillman, Park University, USA  
Birte Simonsen, Agder University College, Norway  
Catherine Sinclair, University of Western Sydney, Australia  
Marta Sisson de Castro, Pontificia Universidade Católica do Rio Grande do Sul, Brazil  
Richard W Sline, Weber State University, USA  
Colin Smith, Caldervale High School/University of Stirling, Scotland  
Maria Inés Solar, University of Concepción, Chile  
Deepa Srikantaiah, University of Maryland, USA  
Nasser Ssesanga, Islamic University in Uganda, Kampala Campus  
Christine Stephen, University of Stirling, Scotland  
John Sutter, London South Bank University, England  
Phil Swierczek, University of Stirling, Scotland  
Rabab Tamish, University of Cambridge, England  
Trudi Taylor, University of St. Thomas, USA  
Alexis Taylor, Brunel University, England  
Shelley Thomas, Weber State University, USA  
Miorara Udrica, University Titu Maiorescu, Romania  
Ikechukwu Ukeje, Kennesaw State University, USA  
Gaby Weiner, Umeå University, Sweden & Edinburgh University, Scotland  
Claire Whewell, University of Stirling, Scotland  
Jacalyn Willis, Montclair State University, USA  
Sybil Wilson, Brock University, Canada  
Paul Wirtz, Northern Kentucky University, USA  
Helen Woodward, University of Western Sydney, Australia  
Benjamín Zufiaurre, Public University of Navarra, Spain

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Claire Whewell, University of Stirling, Scotland  
Jacalyn Willis, Montclair State University, USA  
Sybil Wilson, Brock University, Canada  
Paul Wirtz, Northern Kentucky University, USA  
Helen Woodward, University of Western Sydney, Australia  
Benjamín Zufiaurre, Public University of Navarra, Spain
7. Abstracts

Abdul Rahim, F, Hood, P and Coyle, D
University of Nottingham, England
Teacher development through mediation: Creating a sustainable learning partnership

This paper shares the findings of the researcher working with two teachers: a teacher teaching English Language and another, teaching Mathematics through English. The paper focuses on their processes of development in an attempt to place mediation as central to their teaching approaches to Year One pupils in Malaysia. Two theories that have focussed on mediational approach to learning are Vygotskian socio-cultural theory and Feuerstein’s theory of Mediated Learning Experience (MLE). The central concept of socio-cultural theory and MLE is mediation and explores the nature of socio-cultural forces in shaping the learner’s development and learning. The qualitative research was conducted within a period of three months whereby classroom observations, classroom discourse and teachers interview data were gathered. The researcher worked with the teachers to mediate their understanding of how to scaffold their pupil’s learning. Findings suggested that this enabled the teachers to change, take ownership and sustain their new pedagogical approaches within the classroom and share with the larger members within the school. Working with the teachers in placing mediation central in the classroom simultaneously evolved building a community of learners, which provides a potential approach to expand and continue teacher development in the classroom.

Adeyemi, D
University of Botswana, Botswana
The relationship between reading and composition writing: Implications for junior secondary teachers in Botswana

This paper reviews the connection between reading and composition writing in English language teaching in the context of teaching English as a second language (ESL) in Botswana. It discusses the ways of helping students relate reading skills that will enhance their ability to compose effectively and with greater ease. It provides implications of relating reading to composition writing by teachers of English at the junior secondary level in Botswana. This paper in essence discusses an approach to the teaching of composition writing that teachers can utilize to enable students to compose much more effectively and with greater ease. It is hoped that the paper will also provide an insight to the teaching of English as a second language in Botswana to an international audience. Further, the paper discusses reading (modelling) as a helpful strategy in the teaching of composition writing in Botswana junior secondary classrooms. It is hoped that the paper will provide a sort of insight into the professional development of teachers of English as a second language in Botswana and other African countries. It is not empirical, but draws on ideas about ‘best practice’ in a continuous attempts at improving the teaching of English as a second language in schools, by relating reading in form of modelling to teach composition writing.

Adeyemi, M
University of Botswana, Botswana
The factors influencing the choice of geography as an optional subject: The case of Gaborone Senior Secondary School in Botswana

This paper examines the factors which influence the choice of geography by students as an optional subject in Botswana senior secondary schools using Gaborone Senior Secondary School as a focus of study. It is often the case that during their final year, it is mandatory for students to offer some compulsory subjects such as English and mathematics but also have to choose optional courses from a given list of history, geography, development studies, and economics etc. In recent years, it has been observed that more students opt for geography as an optional subject in Botswana secondary schools. Teacher education in Botswana is such that emphasis is given to teacher training in areas of need. With a high student enrolment in this subject, there are also implications for teacher training institutions to relate this increase in student enrolment to teacher training and future employment of secondary school graduates. What factors influence these students opting for geography at the expense of other optional subjects in the same category? What are the implications for pedagogy at this level of education? Literature germane to subject preference and job aspirations of secondary school students will be reviewed. The implications of this study both in the local and in the wider international contexts will be provided as a basis for comparison across cultures. These and other related questions form the basis of this investigation.
Adeyinka, A
University of Botswana, Botswana

Teacher education in Nigeria: Past, present and future

The historical method of research, involving the study and qualitative interpretation of primary and secondary documents, was used to trace the origins and development of teacher education in Nigeria, from the pre-colonial days to the present time. The early schools, founded and funded by the Christian missions and emphasising the four R’s, were unable to satisfy the needs and aspirations of the people. Education was provided to the primary school level only. During the colonial era some secondary education was made available to the privileged few, to provide a source for recruitment into the civil service and background for the training of prospective post-primary school teachers. The attainment of political independence in 1960 provided the impetus for the development of full-secondary education and the training and retraining of teachers initially to the diploma level and subsequently to the university degree level. The politicization of education from the late 1960s increased the demand for more teachers for the growing number of secondary and tertiary institutions. More colleges of education, as well as more federal and state universities were opened in the 1980s and 1990s. Crash programmes were mounted for the training of teachers. Consequently, various experiments in the training of teachers were introduced, aimed at serving the varying needs of the diverse people of Nigeria. Attention is directed to what should be the future policy thrusts in teacher education in Nigeria, the nature of curriculum and instruction in the schools of tomorrow, and the implications of the Nigerian model for teacher education in other countries. For example, Nigeria implements nine distinct categories of teacher education programmes, which could be of interest to, and suitable for adoption or adaptation by the international community of teacher educators and administrators.

Albertin, A M and Zufiaurre, B
Public University of Navarra, Spain

What kind of strategies can we use to work with emotions in infant/elementary education?

Teaching how to manage with emotions in life, as part of children’s personal and social development, has become an important challenge for education. Educational supervision needs close attention in situations in which children are beginning to develop their values, and each girl and boy can recognise him or herself as a human being with the ability to make decisions, each according to her/his own limitations, desires, relationship with others, etc. This is not a simple task, however, and teachers need to know how to develop suitable and efficient strategies to promote boys’ and girls’ personal development, lead them to higher levels of self-knowledge and encourage them in continuous self-learning.

In this paper, we reflect on an empirical research we are developing these last years in an Infant and Primary school (3 to 12 years) in Pamplona. How do students from different backgrounds (South Americans, gypsy origins, and neighbourhood) interact, and how do teachers manage with special pupils, and special family contexts (e.g. challenging economic, social and cultural circumstances) becomes the issue for analysis. And what we can learn from the experience, fits in an international context, suggesting that when the populations move in response to labour market demands that the organisation of disciplined knowledge to discipline students falls in the complex reality of today’s school life.

Alexander, S and Powney, J
Northampton, England

Preparing teachers to maximise the value of ICT for their pupils’ learning

The ICT classroom and learning experience can be a stimulating and truly differentiated individualised experience for young pupils. This paper focuses on some of the dilemmas facing a classroom teacher using ICT with 5-11 year olds in English primary schools. Teachers have for some time been working to a Government driven curricula with its prescribed time allocation in each subject to be covered. The dominant method of ‘delivery’ of this prescriptive curriculum is through whole class teaching and therefore is in tension with the need for flexibility to meet individual pupils’ needs in their preferred learning activities and styles of learning and to make the best use of the ICT resources available to them. How do teacher educators around the world best prepare and support students and qualified teachers in complying with school/ government demands that seem contrary to good learning situations for pupils?
Al-Yamani, H  
*Bethlehem University, Palestine*  
**The impact of drama on the practice of the primary school teachers in the Bethlehem District**  

This paper will draw on research I have conducted with primary school teachers in Bethlehem. It attempts to assess the impact drama has had on shaping their practice in the classroom. My central research questions are:

- How do schoolteachers interact and behave in drama-based training sessions?
- How do they respond to this training?
- How does it affect their subsequent approach in the classroom?
- Where the training results in a modified approach to teaching, why has that occurred?
- Where training has not resulted in modified approaches to training, why has change not occurred?

I have used qualitative research methods and the interpretative approach so as to elicit the views and opinions of the teachers. An analysis of the data produced by the research demonstrates that drama has a positive impact on teachers’ perceptions of students. It also impacts beneficially on their own professional motivation and enhances their perception of their own role as teachers. The drama-based training helped them accept new concepts such as learner-centred education. In their classroom practice they showed an increased interest in student participation. Their modified methodologies took more account of the needs of students.

Aneke, O  
*Tuskegee University, USA*  
**Satisfaction matters: A comparative study of African American students in teacher education programmes within the Academy**

Educational research has shown that when future educators have high-quality experiences on campus, their transition as educators will be more successful, increasing their satisfaction levels. African American teachers represent one of the lowest teacher populations in North America. Because of the low number of African American college students in teacher education programmes, the number of African American teachers has decreased.

The research study’s goal is to increase the number of African American college students in teacher education programmes, thus increasing the number of potential African American educators. Therefore, the sub-theme of *collegiate working* emphasized in the conference is applicable to the research study proposed. Additionally, the research study is significant to an international audience because the satisfaction rate discussed among African American teacher education students has a global impact for all minority college students in education.

Avison, K  
*Steiner Waldorf Schools Fellowship, England*  
**Meditative Praxis within a Steiner Waldorf context**

Meditative praxis is an integral part of the professional development and practice of teachers in Steiner schools. This paper sets out an integrative account of meditative praxis as practised by Steiner teachers, which has its origins in the philosophy of Rudolf Steiner and the guidance that Steiner gave to the teachers in the first Steiner schools. The term ‘meditative praxis’ is used to denote a structured set of practices which are vocationally embedded and which seek cultivation of the inner life and improvement of professional practice through collegial interaction and mutual support. As a feature of professional development, rather than pedagogy with children, it works to inform the teachers’ approach to their task and serves to build an on-going research process for continual professional development. Thus, a key characteristic of such praxis in Steiner schools is that it is not simply individualistic: collegial interaction complements private meditation. Whilst acknowledging that practice in Steiner schools is not uniform, an ideal-typical model of meditative praxis is constructed and illustrated through practical examples. The paper concludes by considering what implications or relevance meditative praxis may have to educational practice and forms of collegial and distributed leadership in mainstream education.
Battle, A, Looney, L and Amadeo, J A
University of Maryland, USA

Global citizenship education: Pre-service teachers’ beliefs and values

This study examined the beliefs and attitudes of pre-service teachers with regard to global citizenship education. Specifically, the research assessed pre-service teachers’ beliefs by qualitatively investigating the nature of their perceptions of cultural/global identity, as well as their task valuing of, and self efficacy for global citizenship education. From an expectancy value perspective, findings indicate that participants demonstrated high intrinsic and utility value for global citizenship education. Mastery experience emerged as the central theme in participants’ efficacy beliefs about teaching global citizenship education. Implications for teacher training and future research are discussed.

Benbow, A and Robeck, E
American Geological Institute, USA

Internet literacy for teaching in media-rich societies

This paper focuses on how teachers’ Internet literacy can be supported—especially their ability to integrate web-based resources into inquiry-based science instruction. Understanding the dimensions and maturation of Internet literacy can help both teacher educators and content providers support teachers’ preparation to effectively use the Internet in media-rich societies. Internet literacy changes along with contextual elements, such as Internet accessibility, and with changes in the nature of web-based content. The focus of pre-service and in-service teacher development relative to Internet literacy has progressed from awareness of resources to critical review of content, and now includes the integration of Internet-based learning objects into instruction in a ‘high-tech/high-touch’ instructional dynamic. Likewise, the response of teacher educators and content providers has moved to direct modelling of Internet-based resource use. This shift promises to have a significant impact on teacher education, and can be seen in both face-to-face and online teacher development opportunities.

Berger, M J, Forgette-Giroux, R and Glaze, A
University of Ottawa, Canada

Teacher education: Challenges for ethnocultural education

In order to reach the objectives of excellence for all in education in Ontario, the Ministry of Education published several documents: Literacy for Learning (2004), Education for All (2005), Early Reading Strategy (2003), Teaching and Learning Mathematics (2004). These reports offer teaching and learning strategies that will enable school teachers to better meet school child’s needs. They fully focus on the specific issues that surround children of an ethnocultural minority. However, these issues are significant and require an in-depth examination in any teacher Education Programme. Several studies have centred on a few of these issues (Lareau, A. & Hovat, .E.M., 1999; Jeynes, W., 2003). This study examines the strategies that underpin these issues and aims to share them with school teachers who must strive to meet the needs of an increasingly diverse clientele. These strategies seem to take root amidst a culturally responsive pedagogy.

Bergh, A-M
University of Pretoria, South Africa

Measuring the environment in medical education: Implications for teacher education

This paper will report on the results of applying the Dundee Ready Education Environment Measure (DREEM) in a medical school in South Africa. The survey was done in 2003 and then repeated in 2005 and 2007. It is claimed that the instrument is a ‘universal diagnostic inventory’ and ‘a non-culturally specific instrument’ to use for determining the state of the educational environment and climate as part of institutions’ ‘evaluation of their responses to the challenges of changing mandates and missions’. The results from our study will be compared to those of other medical schools across the world and lessons for the education of medical teachers will be explored. The contextual relevance and applicability of the instrument will be interrogated, especially with regard to the broader field of teacher education. The paper will also include a reflection on educational leadership and climate and changing environments as a result of the growth in the diversity of student profiles.
Berlach, R and Sanders, S  
The University of Notre Dame Australia and Cooloongalup Primary School, Australia  
‘Tribes TLC’: Teacher education students’ perceptions

Tribes TLC is a process rather than a programme per se that aims to facilitate interactive learning and assist in the engendering of a positive classroom climate. Devised in the USA and imported into a number of contexts internationally, uptake in Australia has been considerable. Thirty second and third year Bachelor of Education students undertook the training hosted by Cooloongalup Primary School prior to participating in a ten week practicum. Data pertaining to the Tribes TLC resource was collected prior to the training phase, post training, and at the conclusion of the practicum. This paper reports the perceptions of students regarding the nature of Tribes TLC as a resource, their participation in the training, and the value of Tribes training for practicum purposes. Further, insights gleaned regarding the transportability of the resource into other international Teacher Education contexts are discussed.

Bjerg Petersen, K  
The Danish University of Education, Denmark  
Teacher education between accountability and epistemology: A multi-sited ethnographic approach to discussions about new pedagogies and the future of teacher education

The aim of the paper is to investigate and discuss how researchers, teachers, teacher education and teaching might deal with the tension between ‘accountability and epistemology’ in the future of teacher education. In the context of global competition, within the last few years demands for accountability, efficiency and tests in teaching as well as the implementation of new public management methods in organising the educational sector - from primary schools to universities - have been implemented and put forward from legislative and political sites in Denmark. These developments have caused considerable discussions in Denmark about the future of teaching and teacher education. In particular, they have forced researchers to rethink innovative ways of integrating a holistic focus on the human being as well as on a democratic education with the new demands of efficiency and accountability.

The methodological approach of the paper is a ‘multi-sited ethnographic approach' whereas the empirical base of the paper are studies of interdisciplinary relations between different ‘sites' in teaching Danish as a Second Language for adult foreigners.

Blamires, M  
Canterbury Christ Church University, England  
The Teacher Training Resource Bank: A free evidence informed resource for the profession by the profession

The Teacher Training Research Bank (www.trb.ac.uk) is a project supported by the English Training and Development Agency for Schools (TDA). The project was launched in March 2006 with the following aims:

- To articulate and represent the professional knowledge bases that underpin teacher education
- To increase the range and quality of resources available with ITE especially video based resources
- To raise the profile of teacher training research and knowledge creation
- Promote change by linking theory, debate and practice
- To provide a personalised support service for teacher educators

The TTRB website consists of peer moderated reviews and summaries that have been classified using a range of schemas to aid browsing and accessibility. The resource has had over a million document downloads from teacher trainers and trainees with over 2000 a day. This paper describes the TTRB, its ongoing evaluation and potential.
Brooks, K  
Butler University, USA  
**Teacher critical self reflection for changing societies (social worlds)**

Critical reflection is a type of processing that enables pre-service and in-service teachers to develop the habit of continually learning from their experiences by (a) thinking about their assumptions and biases and problematizing situations in practice, (b) framing problems of practice through multiple perspectives, (c) critiquing and reframing problems within a broader social political and moral perspective, and (d) taking action that is informed by such reframing.

This paper will provide an overview of the critical self-reflection journal writing in which pre-service teachers and in-service at two universities are engaging. Ongoing research on this particular form of critical self reflection journal writing reveals student assumptions and biases regarding teaching and learning with and from culturally and linguistically diverse learners, background experiences that have shaped these assumptions and biases, and academic and professional experiences that have challenged these assumptions and biases.

Burnett, J  
University of Plymouth, England  
**Post secularism and teacher education in an age of terrorism**

Across the world, tensions between social groups, have become highlighted, particularly in terms of differing cultural practice, beliefs and values. Bland multiculturalism with a ‘one-size fits all’ approach to spirituality is unlikely to adequately address such tensions as they arise in the school environment. Fear of being viewed as indoctrinated or even indoctrinator has, in the past, inhibited dialogue on personal spirituality. The paradigm of seemingly neutral secular humanism, determining the prevailing academic climate in teacher education since the 1960s, is itself shifting as post-modern analysis concludes that secularism itself is an ideology. The emergence of ‘post-secularist’ thinking raises the possibility that the personal spirituality of the teacher can be a contributory factor in serious and respectful debate between a range of interpretations transcending mere personal belief. The encouragement of such debate, as part of the culture of teacher education, could equip future teachers to work positively within the complex learning communities of the future.

Butler, S and Hooper, R  
Weber State University and Idaho State University, USA  
**Mentoring matters: A model for facilitating university professional development & collegial collaboration**

How do university teacher educators share their knowledge of pedagogy with colleagues outside their departments? Mentoring may be one way to affect teaching and learning across campus, engage in professional development, and move us (teacher educators) beyond our pedagogical comfort zones to consider our practices with new eyes. Our year-long university study provides a model for teacher educators in mentoring discipline-specific colleagues. Specifically, our paper documents both qualitative and quantitative results of one teacher educator’s (Butler) mentoring of a social work colleague (Hooper) as they explored together how to redesign instruction, writing requirements, assessments, and use of texts to affect student writing beyond general education composition courses. The mentoring model we propose has implications for faculty professional development and collegial collaboration, two identified conference themes, at both university and public school levels. In addition, we encourage applications of the model for teacher education programmes needing a framework for teaching writing to both students and faculty in teacher education.
Carroll, M  
*University of Stirling, Scotland*  
**Graphic reconstruction of enquiry: Creating knowledge maps of collaborative action enquiry**

This paper will examine how a group of students’ recontextualise the learning experiences encountered whilst undertaking the MEd Professional Enquiry in Education. Early indications are that this is a complex recursive, rather than a linear, process; however, ill-defined knowledge maps hamper our understanding of how knowledge gained and codified in one context is transmitted into a different context.

The paper will examine the ‘Communities of Collaborative Enquiry’ created by the students, within the context of their schools, along with the territories explored in operationalising their improvement-focused interventions in the classroom and wider school operations. The paper will attempt to map out the web of relationships and how these connect to the actions undertaken through a process of graphic reconstruction. In articulating precisely what the students attempt to do and why they choose a particular action set it may help to develop our understanding of collaborative action enquiry (CAE). In particular how CAE supports practitioners’ praxis, as opposed to practice, by movement from the identification of practice-based problems to the professional construction of new knowledge. This paper is likely to interest those who are concerned with using action enquiry as a means to promote knowledge creation and transfer within organisations.

Chabeli, M  
*University of Johannesburg, South Africa*  
**Humor: A pedagogical tool to promote learning**

This paper seeks to explore the perceptions of nurse teacher learners regarding the use of humor as a pedagogical tool to promote learning. Humor creates a relaxed atmosphere where learning can be enhanced and appreciated. A qualitative, exploratory, descriptive and contextual research design was employed. 130 naïve sketches were collected from nurse teacher learners who volunteered to take part in the study. Follow up interviews were conducted to validate the findings. Content analysis was done. Measures to ensure trustworthiness were taken in accordance with the protocol of Lincoln and Guba (1985:290-326). The results revealed the effects of positive humor as: 1. Promoting learning through the creation of a positive, affective, psychological and social learning environment; 2. Promoting critical thinking and 3. Promoting emotional intelligence. Negative humor was perceived as having a negative impact on learning.

For an international audience the significance of this paper is the description of guidelines to assist educators in facilitating learning through the effective use of humor. The teacher as a facilitator and a mediator of learning is responsible to create the environment/context conducive for the construction of knowledge by learners.

Chen, Y-F  
*Fo Guang University, Taiwan*  
**Teachers’ multicultural education beliefs**

In Taiwan, there are more and more brides from South-Eastern Asia. These ‘New Immigrant Females’ faced some adaptation problems so our government set some programmes to help them understand our culture and being ‘one of us’. Most of the teachers of such programmes are elementary school teachers. They are not necessarily good at adult education or multicultural education. When they interacted with these New Immigrant Females, their multicultural perceptions played important roles. This study chose Bank’s framework to be an analytic basis to examine whether our teachers have multicultural concepts. When we discussed multicultural teacher education, many literatures focused on teachers’ abilities to teach children from different cultures, but few investigations concerned how to teach adults from different cultures. We knew exactly how to ask teachers with multicultural perceptions to face children fairly, but we didn’t ask adult education teachers as if they couldn’t need to know. This pilot study made some important findings. Teachers who taught the New Immigrant Females paid attention to assimilation but lacked multicultural consideration, they seldom developed equal instruction or emphasized content integration, neither touched the prejudice the New Immigrant Females might encounter. Based on this pilot study, I will design some further studies to explore the functions of these programmes and the teachers’ abilities to deal with the problems that multicultural or adult education may have, and propose some suggestions about multicultural teacher education.
A study of needs assessment of professional development for educational advisory teachers in Taiwan

Educational Advisory Group (EAG) formed by expert teachers in Taiwan has been playing an important role during the process of curriculum reform in linking and facilitating the implementation and diffusion of innovation policy between The Ministry of Education/Local Departments of Education and elementary/junior high schools. However, literatures indicated that their roles and tasks serving as change agents or curriculum coordinators need to be redefined and their professional development system needs to be constructed.

The purpose of this study is to conduct a professional development needs assessment for educational advisory group members. Data is collected via three sources: 1) questionnaire survey answered by the advisory group members, 2) focus group interview by administrators, teachers and researchers, 3) official document analysis. It is hope that through this study, the priorities of professional development needs can be identified and further a comprehensive professional development system will be suggested for the educational advisory group members and related administrative authorities.

This study is particularly significant for those contexts implementing curriculum reform and expecting teacher growth through professional supports by other collegial teacher leaders. The lessons learned from this research will be applicable to those who are planning to move their career ladders to become expert teachers or change facilitators.

Policy expectations of beginning teachers in Hong Kong: Some emerging issues

As in other national educational contexts, there has been a general social and political will to expand and improve the quality of teacher education in Hong Kong. Against the background of structural and curriculum reforms, this paper highlights the qualities that are expected of beginning teachers from the perspectives of 40 principals and senior teachers, from a population of 447 secondary schools, through semi-structured interviews. An incongruity is identified in the policy expectations that novice teachers can both be inducted into the profession and, despite their classroom inexperience, effectively function as agents of change for major education reforms. This raises issues concerning the ‘centre-periphery’ problems of education reforms and policy implementation, the importance of school context and management mediation, the need for induction and continuing professional development, and the role of initial teacher education, which are of widespread interest to an international audience.

Assisting secondary school students in customizing their school experiences around relevant learning situations

This paper will discuss a new Ministry of Education initiative for secondary schools in the province of Ontario, Canada. The initiative called the Student Success Strategy, has been designed in order to reach every secondary student. Since each student is an individual with unique interests, learning styles, goals and strengths, each should be given the same opportunity to succeed in high school. The Student Success Strategy has been designed to give all students more ways to accumulate credits in order to graduate. New programmes are being developed to help students customize their high school experiences around learning that is relevant to them. An implication of this Student Success Strategy is the need to train teachers who can address the learning needs of all high school students. The paper will describe a unique alternative secondary school teacher training programme that responds not only to the demands of the Student Success Strategy, but will address new directions for teacher training in general.
Conejeros, M L
Pontificia Universidad Católica de Valparaíso, Chile
Favoring the equity in the development of the potentialities of the students: The experience of the programme Beta of the Catholic University of Valparaiso, Chile

Chile needs to improve quality and equity at all levels of education. Differences grow annually in student achievement at fee-paying establishments compared with that of municipally-funded schools. The Beta Programme, created in 2005 by the Catholic University of Valparaiso, aims to strengthen interest in knowledge and passion for learning among academically talented students from three communes in the region.

The students, most of whom attend municipally-funded schools, choose courses and workshops relevant to their curriculum options, over two academic semesters and an academic summer season. These courses are provided by highly motivated, innovative university teachers. The curriculum is characterized by depth and complexity. Teacher and student evaluations both show a high level of satisfaction. Students value the opportunity to learn in a reflexive and thoughtful manner, and teachers are motivated to develop a better quality of teaching and to transfer many of these experiences to their university classrooms.

Coultas, V
Kingston University, England
Teacher trainees reflecting on talk in Denmark and the United Kingdom

What do trainee teachers think about talk in the classroom? This article reports on some attempts to reflect on this question with trainee teachers in Denmark and the UK. The discussion is focused around four main areas: teacher talk and how to get lessons started; the use and promotion of small group work; and how to organise the plenary or feedback at the end of a lesson. The teachers were also asked to comment on what measures might assist them in promoting small group learning.

The comments suggest that trainee teachers, in two different national settings, had many common concerns and reflections on talk. There were some differences over the use and variety of cueing systems and UK teacher trainees focused more strongly on the role of another adult in promoting talk. The trainee teachers completed these questionnaires at the end of lectures on Promoting collaborative learning/whole class dialogue in Denmark and the United Kingdom in October and November 2006.

Crawford, F and Saunders, P
Weber State University, USA
Maintaining cultural responsiveness through pedagogical innovations

Current practices affirm that teacher candidates must possess content knowledge, skills and dispositions to teach in an ever increasing global classroom. Grant and Gilette (2006) state ‘Culturally relevant teachers are skilful at constructing curriculum that is based on students’ needs and interests…using data to refine and improve practice’ (p. 296).

Beginning the fall of 2007, the Teacher Education Department at Weber State University (Ogden, UT, USA) is piloting a new set of courses that will reduce the secondary teacher candidates’ requirements. Several concerns have been raised about the impact of course reduction and the subsequent revised curriculum model.

• What global educational strategies can we incorporate to ensure our candidates are culturally responsive?
• What comparative innovations might be explored during our pilot year that would have meaning to other teacher preparation programmes?
Domínguez, L
*Universidad de Concepción, Chile*

**The introduction of ICT in pre-school education and the new role of the teacher in the digital literacy process**

Until a decade ago the main task of formal education was to help young children to become literate. Nowadays, the enormous development of Information and Communication Technologies (TICS in Spanish), has created another challenge for educators. Acquiring digital literacy is unavoidable and necessary knowledge and understanding for the society in which we live. Education should train pre-school children to develop the different abilities these technologies require. Education should provide students with the main and valued competences that are so important for becoming efficient and successful 21st century professionals. The ability to handle the digital world is a clear example of the competences needed.

This work describes the experience obtained after the application of TICS to pre-school children in the 8th Region – Chile; at the same time, it analyses the role the teacher must fulfill.

Dragovic, T
*Open University, Slovenian Further Education Institute, Slovenia*

**Teachers’ professional identity and the role of CPD in its creation**

The paper reports on a study (in progress) into how teachers trained in Neurolinguistic Programming (NLP) and non-NLP trained teachers in Slovenia talk about their professional identity and their work. Neurolinguistic Programming is a behavioural model and a set of explicit techniques, developed by Bandler and Grinder (1976) by studying patterns created in interaction between brain, language and body. The study is examining (15 to 20) Slovenian primary school teachers’ personal and professional development (focussing on NLP-based personal development trainings). It also discusses how both professional and personal development may be connected to teachers’ professional identity by taking them beyond a purely behaviour, skills, procedures and knowledge level.

The paper’s main focus is on the preliminary findings of the pilot study, which showed potentially interesting implications for the design of CPD courses. One such is the dominance of skills and knowledge in Slovenian CPD trainings for teachers, where a stronger focus on beliefs, values and identity might have a greater impact. Another is the apparent gap between how professionals and professional associations see CPD. Professionals, may have a ’limited’ view of CPD, seeing it as training, a means of keeping ‘up-to-date’, or a way to build a career. Professional associations, on the other hand, see CPD as part of lifelong learning, a means of gaining career security and personal development. The topic is explored in the study using mainly semi-structured interviews and (non-participant) unstructured observations. Additionally, reflexive diaries are used to acquire a deeper insight into the internal processes of the participants.

Draper, J
*University of Exeter, England*

**The development of teacher autonomy: A goal of teacher education and CPD in the changing world of teachers’ work**

In recent years there have been significant changes to public sector work in general and to teachers’ work in particular. Global shifts to centralization in policy making and managerialism in many educational systems have increased accountability and reduced teachers’ influence on policy which shapes their work. However, with rapid change and increased expectations of differentiating to meet individual learner needs there is a requirement for teachers to be flexible in their practice. In the light of this tension, teachers’ autonomy (and agency) appears complex. There are several different levels at which autonomy may be exercised in professional work: autonomy or influence over policy is not the same as autonomy over practice. This paper will consider the implications of these varying levels of autonomy for initial teacher education and for subsequent continuing professional development. It will draw upon findings from a longitudinal study of Scottish teachers in order to develop the analysis.
Nowadays deeply-going reforms in post-1989 Romania are not possible without the education reforms, and education cannot significantly change without teachers’ actions. These truths are obviously highlighted by the harsh transition from the authoritarian and centralized education system to the democratic one.

This paper aims at providing significant insights into the new aspects of in-service teacher training and also the initial teacher training in pedagogical high schools, higher education colleges and university faculties. Priorities for initial teacher training are now to go beyond academic uni-specialization and to consolidate pedagogical and methodological training of the future teaching staff. References will be made to the education of teachers for developing the European awareness, tackling multilinguism and multicultural education in Romania.

The second part of this paper deals with successful methods used by the teachers of informatics in the initial training of students. Thus, the future teacher will no longer be an omniscient person. He will become the guide for the students, and will stimulate them to translate their work into a real-world situation. As the students learn in classroom settings or in informal ones, the teacher can become the facilitator of learning, offering strategies to guide learners.

Professional Resources in Science & Mathematics (PRISM) is a canopy for professional development programmes and opportunities The purpose is to achieve science and mathematics literacy for all students in partner districts by improving teacher knowledge of these disciplines and pedagogy. Emphasis is placed on active student engagement in the learning process by ‘doing’ science and mathematics collectively and individually while employing higher-order skills of critical thinking, questioning, positing, and reasoning. Outcomes expected from PRISM services are improved student scores on the national, state, and school-based examinations. PRISM supports acquisition of high-quality teacher status for each participant as required by the No Child Left Behind federal law. Teachers in the selected school districts participate in PRISM workshops, university courses, classroom mentoring and demonstration teaching, long range planning for curriculum development and focused instruction, and selection and use of current resources in all formats.

For an international audience the significance of this paper is in the role of professional development for in-service teachers and administrators. Educators, like all professionals, are responsible for continued learning, growth as a specialist in the field, sustaining cutting-edge knowledge, and pursuit of best practices. PRISM is an example of a programme designed to serve such needs in the local education arena. PRISM can be replicated or adapted as a professional development programme anywhere in the world.

The present paper focuses on the ‘society world’ (MORIN 2002), the role of globalization within such society and its implications for the education of teachers. The ‘society world’ here represents the knowledge constructed throughout the society in different time and spaces, as well as the recognition of the complexity of humanity and its knowledge. It is also important to understand the theory of Morin (2002) which is concerned with the interaction of the men-society-specie and the text-context, the whole and the parts, in the ‘hologram principle’. This paper presents some outcomes of two research studies carried out in the context of schools around the state of Rio Grande do Sul, Brazil. The first was related to ‘classroom culture’, looking at data in the light of the Culture Theory by Thompson (1995), and the second was linked to ‘cognition and affection inside the classroom’, based on the Tact Theory by Van Manen (1995). The paper also tackles the implications of these results for learning as it is thought about in Brazilian education and their relationship to the issues discussed in the global social and educational context.
Ferguson, P  
*University of Minnesota, Morris, Australia*  
**Reflections on the globalisation of (teacher) education**

ISTE has always been interested in exploring ways of improving educational opportunities, particularly in less well developed countries. One major concern is to investigate ways to improve teacher education across the world. However, the issue of the Globalisation of (teacher) education requires careful examination, scholarly discussion and argument in order to highlight potential research for ISTE members with a view to action for improved access for teachers and teacher educators from less well developed systems.

In my current work I regularly assess the comparative (to Australian) levels of educational qualifications of overseas folk seeking to migrate under the Australian Skilled Migration programme. From my work experience and my research in the field of qualifications I wish to describe and discuss a number of questions such as:

1. Looking carefully at what underpins the education system of each country
2. Examining the influence of on-going changes in systems around the world e.g. the Bologna Process in Europe
3. Considering the impact of competitive student recruitment by Western institutions
4. Asking how the growth of ‘Western’ education providers within less well developed countries influences the education system of the host country
5. Considering the proliferation of ‘Diploma Mills’ which seduce folk to purchase bogus awards from unaccredited institutions.

The above are examples of Globalisation and we need to examine costs and benefits to individuals and families who emigrate and for the developing countries they leave. I intend in this paper to highlight some issues I believe need attention.

Forrester, V  
*Hong Kong Baptist University, Hong Kong*  
**The ‘craft-orientated’ model in teacher education: Research-based reflections from Hong Kong**

A contextual review is offered of Hong Kong’s current education reform that seeks to transform education (and classroom practice) from the polarity of subject/skills to the spectrum of generic skills. Yet despite this reform, Initial Teacher Education (ITE) in Hong Kong remains rooted in the ‘craft-orientated’ model (Morris, 2000), a model criticized for its lack of post-training scaffolding (Tickle, 2000).

A series of current research findings are presented that reflect the personal – and frequently extreme - challenges that directly result from a lack of post-ITE scaffolding (Forrester, 2005, 2006). In contrast, research on experienced teachers indicates an unexpected degree of professional creativity (Forrester and Hui, 2007). Adopting a symbolic interactive perspective (Pollard, 1996) these contrastive findings of new and experienced teachers are here tentatively explained in terms not of Western philosophical polarities but of Chinese philosophical harmony – the ying and yang of Hong Kong ITE? The significance for ‘scaffolded’ ITE models such as post-McCrone in Scotland will be discussed.

Fox, A  
*University of Stirling, Scotland*  
**Being an enquiring teacher**

Professional enquiry is an integral element of the work undertaken by experienced educational practitioners engaged on Master level courses within the Institute of Education at the University of Stirling. This paper revisits the rationale behind the inclusion of enquiry as a central element of many Masters level programmes and outlines its perceived contribution to knowledge creation in schools leading to improvements in learning and teaching. It goes on to consider whether this activity is sustainable without the support of the university. In doing so it reflects on some of the barriers teachers at all levels encounter when undertaking professional enquiry in collaboration with colleagues. These include issues of structure, power and legitimation. It also begins to consider if social capital can offer insights into the different ways these barriers are overcome. This paper is likely to interest those who are concerned with the development of collegiality within traditionally hierarchical organisations.
The evaluation of demands made on primary school special educational needs coordinators (SENCOs)

The complexity of demands identified in a sample of Special Educational Needs Coordinators is examined in terms of their professional practice. A sample of four primary schools in West Sussex is the focus of this work. The paper reviews current research and literature and then, using a qualitative methodology, examines the approaches adopted by teachers with reference to pupils with learning difficulties, and the progress of their pupils. The paper outlines the United Kingdom’s developmental approach in terms of school action, school action plus, and the statementing of pupils with Attention Deficit Disorder (ADD), and its implementation in the four schools.

The work of Amen, DG (2001) and his classification of six specific categories will be used to refine the work. It is clear from a recent study in the USA that Ritalin is widely prescribed for the treatment of ADD. In the United Kingdom the presentation of ADD pupils opens up the challenge of mixed ability teaching and the supportive initiative of mentorship, in comparison with streaming and setting for children with special educational needs. The paper will report its findings and attempt to outline possible further approaches to the education of ADD pupils.

Professional knowledge towards language education: (re)constructing beliefs of in-service teachers

Language education involves not only language acquisition, but also the concern for the respect for cultural diversity and intercultural competence (Beacco & Byram, 2003). This paper discusses what can be considered the professional knowledge base for a language educator. With reference to data analysis from an Education Programme for in-service language teachers we will discuss how teachers reconstruct their beliefs on what professional knowledge is. Focus will be set on teacher’s discourse throughout the education programme in what concerns their professional and personal practice of plurilingualism and interculturalism.

Considering professional development a complex process, which is different according to each teacher, we further aim to trace the changing nature of teachers’ discourse since their starting point and throughout the education programme (2004/2005, 2005/2006). We want to know how teachers value plurilingualism, their own and others’, and how they implement it into their professional practice. Finally, we will discuss how professional knowledge base can be reconstructed towards a continuous professional growth.

Who knows? New teachers, identity and knowledge flows

New (probationer) teachers, as they enter schools, mediate between many sources of knowledge about teaching. e.g. ITE providers, experienced teachers, pupils, their own life experience and public expectations. This paper reports on the mediation processes of new teachers in Scottish Secondary Schools, using data gathered by teacher-researchers working with the Early Professional Learning Project at the University of Stirling. Our findings indicate that developing a strong sense of teacher identity is the key to successful mediation of these knowledge sources. This is facilitated by factors such as the collegiality of school environments, provision of own classroom, adequate teaching materials and avoidance of information overload in the first months of teaching. Our findings indicate that the current cohort of new teachers are successfully integrating the various knowledge sources available to them, but that ITE providers and policy makers need to be more aware of the reality of the early professional experience.
Greenberg, J and Lavine, R  
*University of Maryland, USA*  
**Creating a new professional development model for university professors in Ecuador**

The development of support systems and professional development programmes for university teachers in Latin America is a relatively new phenomenon. There is a strong tradition of conventional teaching practice with the professor placed as the source of knowledge and the students as passive recipients. As textbook and internet access have grown, the role of professors is being re-examined; new models of constructivist learning and student-centred teaching are emerging. At the same time, there is a strong movement toward greater emphasis on standards (whether influenced by Europe, the U.S. or both) and on accountability and accreditation.

Along with a team from the University of Maryland, I have developed a new Diplomado in University Teaching at the request of a consortium of universities in Ecuador. The first iteration of this project has just been completed. It is the first of its kind in the country. This paper will describe the model, its implementation process, and results from the first pilot—completed in December, 2006 with a class of 30 university professors.

Gregory, A  
*University of Reading, England*  
**Towards more informed inclusive practice: Professional development narratives of students and mentors in Initial Teacher Training and Education (ITT/E)**

The paper aims to describe and critically reviewing a project for undergraduate students in Initial Teacher Training and Education (ITT/E) which provides for the development of increased Special Educational Needs (SEN) expertise in mainstream placement schools, supported by university-based student studies in the field.

The project under review aims to address the need for enhanced SEN professional expertise on the part of newly qualified teachers. It is framed in relation to principles and practice of inclusion with a particular emphasis on SEN knowledge and classroom practice in the context of current legislation in Britain, including the *Every Child Matters* agenda, and wider, international awareness, of the application of universal children’s rights to individual and personalised educational provision, including interpretations of the Salamanca Statement (1994).

Data will be drawn from students and mentors working in SEN resource units and linked mainstream classrooms, in the form of personal narratives of professional development, which evidence achievement and challenge and identify linked openings for further enquiry and action. Findings from the project will be significant for an international audience concerned to develop teacher education, appropriate to different national contexts, and which incorporates SEN knowledge and practice as part of inclusive mainstream practice.

Hadley, K and Moulding, L  
*Weber State University, USA*  
**Teachers becoming researchers: A developmental, articulated approach**

Graduate education programmes focus on developing in-service teachers’ professionalism and pedagogical skills; however they may also require a thesis. Internationally, educational research methodologies are often not well understood by teachers nor are they an inherent part of teaching. Therefore, the development of ‘teachers as researchers’ deserves special consideration in a graduate programme. Articulation of a research strand within the graduate programme facilitates the development of thinking as a researcher and is likely to facilitate a more meaningful learning opportunity for in-service teachers.

This session will describe and provide the rationale for three courses currently used in the Weber State University (Ogden, Utah, USA) Master of Education (M.Ed.) programme: Fundamentals of Graduate Study, Conducting Educational Research, and Proposal Development. As teachers complete each course, they are taking small, but important steps toward becoming a teacher researcher of a self-selected area that will enhance their understanding of teaching, learning, or students.
Halloway, W  
*University of New England, Australia*  
**A conservation teaching materials and professional development project: Biodiversity in Bhutan**

This paper describes the early stages in a teaching materials and professional development project to promote teaching and learning about conservation of biodiversity in Bhutan. Prototype materials based on World Wildlife Fund publications have been developed with the assistance of Bhutanese teacher educators, teachers and students. Promising results have emerged from their use by teacher educators in the Bhutan Colleges of Education and especially when used by Bhutanese teachers during the 2006 Bhutan Multigrade Attachment Programme in Australian multigrade rural schools. Productive discussions aimed at developing the project have been held with various education authorities in the Ministries of Education and Agriculture, the Nature Conservation Division, and with staffs at the Colleges of Education in Bhutan.

The project seeks to improve teaching practice in Bhutan through the development of teaching materials relevant to the local environment, the application of newly aligned curriculum and recent efforts to encourage effective professional development of teachers. The general approach involves close collaboration with Bhutanese teacher educators and teachers in the development of the materials and teaching guidelines. The project may offer an effective way to assist less economically developed countries to achieve quality teaching and learning about conservation of biodiversity of the natural environment.

Herndon, K  
*Weber State University, USA*  
**The importance of unheard voices: Integrating Middle Eastern literature into pre-service methodology courses**

Teacher educators understand the importance of preparing pre-service teachers to work with students and ideas that represent diverse national, ethnic, cultural and religious concepts. This realization has changed the curriculum most dramatically in Language Arts, specifically in the study of literature. However, in the United States the most commonly represented diverse groups are still African American, Asian American, Hispanic American, and Native American. Important voices remain unheard; Middle Eastern authors and viewpoints are rarely included in the secondary curriculum. When they do appear they are often presented against a background of inaccuracy. My paper will address the importance of including these voices in pre-service teacher methodology courses and will make the case that Middle Eastern literature has an important place not only in literature courses, but also in political science, history, and sociology courses.

Ho L-A  
*Tamkang University, Taiwan*  
**The implication of instructional design practice for university faculty’s professional development in Taiwan.**

Teaching is one of the major tasks of university faculty. Since university staff do not go through teacher education programs, it is essential to learn how they teach. Thus, the study tries to examine and understand how higher education teachers perceive their own professional performance through the lens of instructional design. Faculty members at a university in Taipei were surveyed. The results show that among the five stages of instructional design process (analysis, design, development, implementation and evaluation) university teachers are more focused on analysis, design and development of instruction. The data also suggests that university staff place emphasis more on content analysis, instruction implementation, and summative evaluation of instruction. However, they are less concerned with students’ needs assessment, pre-instruction preparation and formative evaluation. Some of the findings are consistent with a prior study in which the instructional design practice of elementary school teachers was examined. From the results of both studies, this study is able to offer some suggestions which apply to teachers at different educational levels in improving their instructional design.
The structure of the universal language of knowledge is a structure of a language system of knowledge with no references to a lived body. The knowledge you use as a person in your lived life, is structured according to your own personal language. That is, according to what is meaningful to you as a lived body. A teacher’s language use is a kind of in-between. (S)he is partly using a language system referring to the abstractions of the system of knowledge and partly using a language referring to her/his own experiences. This constitutes a puzzle of ‘what it makes sense to say’ (Winch, 1958) for teachers. My aim is to describe how teachers can construct processes which allow for hermeneutic distance (Ricoeur, 1991). This project is an argument for the teachers’ language use related to their actions as a way of theorizing about the field of teaching and learning and as a way to make sense of the speech acts of teachers for themselves in a democracy, and therefore as part of their continuous professional development.

This paper will have connections with my colleague Geir Karlsen, NTNU, Trondheim.

Reasons for teaching and practical reasoning in teaching: A re-figuration of teachers personal language use in the practice of teaching

This study is part of a theoretical (Philosophical) and empirical project named Teachers Personal Language Use and Inclusive Education. In this project I am exploring the possibilities for the development of teaching-learning processes through the teachers personal language use. My findings in this project could both influence new directions in teacher education and promote ways of working with continuous professional development. The part I want to present at ISTE is some of the preliminary findings in the empirical part of the project based on some short interviews where nine teachers present their thought about what they do when they teach and later video recordings of these teachers in practice that are discussed in a reflecting team of teachers. My aim in this project is to explore the potential of working in reflexive processes by using language about what we do when we teach and thereby hoping to find ways in which the teaching-learning processes could be mastered differently both at an individual and an institutional level.

By discussing and commenting on each other’s journeys as teachers we were becoming reflective writers and practitioners without even knowing it! Exploring e-portfolios and weblogs as experimental learning and teaching spaces in communities of new teachers

This paper will consider and showcase the development of critical reflective practitioners within communities of practice (Lave and Wenger 1991, Wenger et al 2005) of pre-service teachers for the post-compulsory sector. The case study will focus upon two cohorts of new teachers at the University of Wolverhampton and their use of e-portfolios and weblogs as transformational learning spaces. The possibilities created for digital storytelling and pedagogical conversations within these learning landscapes it is suggested may produce critical subjects and authors.

Blogs, as web communication tools, and community landscapes are well established. However, their use and the use of e-portfolio as a technology and educational learning space within professional programmes such as Teacher Education within the United Kingdom is under theorised and under examined. This paper will contribute to this debate by considering how a reflective community may be created, fostered and exploited to support the development of new teachers and their transition into the workplace. This paper will be of interest to national and international colleagues in all sectors interested in exploiting the potential of current and emerging technologies for teacher education and CPD.
Hugo, A  
*University of South Africa*  
**Using English as a second language in the classroom: Concerns of primary school teachers in South Africa**

In South Africa, English, the language of instruction, often causes a breakdown in learning because it is a second or even third language for many learners, as well as for teachers. Although English is the home language of only about 7% of the South African population, it is widely used as the language of teaching and learning.

A research project was done about the language abilities of ESL teachers in primary schools in South Africa. The findings of this quantitative research will be discussed. To teach through the medium of ESL is a problem experienced in many developing countries and especially in many African countries and thus an international audience could benefit to be informed about this research.

Hunter, S  
*University of St. Thomas, USA*  
**Can teacher education help save world languages?**

UNESCO reported in 2001 that 50% of the world's 6000 languages are endangered*. When the world's diverse languages are lost, a large part of the heritage of mankind is lost. Native American languages are in danger of being lost forever. In many cases, only a handful of the elderly remain fluent in their languages and they are needed to teach the youngest children and their future teachers.

By law, the elderly fluent speakers must attend a teacher education programme and become licensed to teach a classroom of children. However, a legislative model designed to place elders and licensed teachers together in classrooms to train one another in language and teaching practices under the auspices of a licensing agency may be a better answer. Public schools could then become immersion schools or bilingual schools. This model may work for other world languages. A discussion of the problems and solutions to save endangered languages should be a task for teacher education.

I’Anson, J  
*University of Stirling, Scotland*  
**Travelling knowledge: CPD and the complexities of knowledge production and transfer**

This paper is concerned with knowledge production and transfer in relation to the construction of a Continuing Professional Development course. Recent work on knowledge production acknowledges there has been a move from traditional conceptions, characterised as ‘mode 1’ (Gibbons, 1994) in which knowledge is produced in university spaces and then applied elsewhere. New approaches to knowledge production, characterised as ‘mode 2’, open up the prospect of knowledge production across multiple sites in which there is a shift towards the management of ‘the whole process of innovation’ (Lee et al., 2000: 124). Whilst such conceptualisations have become widely influential (e.g. Hargreaves, 2003) just how adequate is ‘mode 2’ discourse as a characterisation of knowledge production and transfer?

Here we consider a case study of the development of the *Scottish Qualification for Headship* (SQH) through a mapping of the complex movements, translations and changes that occurred as this course was developed. This raises questions as to how we might think differently in relation to this complexity of knowledge circulation and production. We draw upon some of Deleuze’s (1994) concepts in this effort to make sense of these translations at a local level.
Ibbotson, J  
*University of Derby, England*

**Breaking down barriers: Developing programmes to engage teachers as researchers in their learning community of educational practice**

This paper focuses on the way that barriers to teachers' participation in postgraduate professional development (PPD) programmes at Masters level (Arthur L, Marland H, Pill A and Rae T 2005) can be addressed through the creation of programmes which are grounded in evidence-based practice through independent or collaborative practitioner research. It draws on the model of the learning community (Lingard B 2003; Senge PM 2006) and the community of educational practice (Wenger E 1998, 2002; Hammersley M 2004) in order to identify ways in which teacher researchers can contribute to sustainable school improvement through continuing professional development for effective schools (Ofsted 2006). It explores the design of one Masters PPD programme which is founded on work-place-based and enquiry-based principles.

The paper examines the benefits of practitioner research to teachers themselves and to their learners, and draws its argument from research undertaken with teachers into an impact evaluation of themselves as researchers within schools in partnership with one university in the UK.

Inglis, G, Corrigan, A and Thomson, J  
*University of Strathclyde, Scotland*

**Integrating an e-portfolio in an initial teacher education degree**

This paper is based on work within a larger two year national project, Re-Engineering Assessment Practices, which investigates embedding new assessment approaches in university education. The paper reports on the pedagogical considerations in using an e-portfolio approach to personal development planning innovatively within a degree in initial teacher education. The e-portfolio is a personal learning space where students record ideas and evidence for personal development planning. It focuses on the project aim of integration of the e-portfolio within the degree. Integration refers to placing personal development planning at the heart of the course and to the potential knowledge transfer across a module-based degree. The Phase 1 (2005-06) focus was on embedding an e-portfolio and planning towards its course integration. Data was collected through questionnaires, minutes of meetings with students and a staff focus group - reported at http://www.reap.ac.uk/resourcesCase.html. Phase 2 (2006-07) data collection is on-going, employing student questionnaires, focus group data and content analysis of e-portfolio entries as well as a broader staff focus group. The work describes formal practices that can be planned into a course to engage students in reflecting on their own learning and informal ways that students can begin to take 'ownership' of their development through a personal learning space.

Jensen, S, Radulovich, K and Gregg, D  
*Weber State University, USA*

**Three pedagogical approaches to organization: A global intervention model to assist teacher educators in dealing with multiple priorities, unexpected and/or difficult situations, and other varying types of stressors**

In the future, Teacher Educators are going to be faced with many formidable responsibilities including large student populations and limited resources. Many educators already feel that there are not enough hours in the day or money in the budgets to deal with the students enrolled in our schools, and these numbers are expected to do nothing but climb. Teacher Educators need to be prepared to deal with multiple priorities, unexpected and/or difficult situations, and varying types of stressors. This paper will demonstrate three pedagogical approaches to organization designed to help educators fit all of these pieces of the puzzle into a busy educator's day. By incorporating these methods of organization into their professional development, new and experienced teachers alike will be better prepared to deal with what may otherwise be overwhelming responsibilities.

The main text of the paper and discussion will include information about the role expert teachers/mentors play in early classroom interventions and management activities of pre-service educators. Attributes of peer support will also be addressed as a successful factor in managing diverse classrooms (US and abroad will be highlighted). Collaboration with peers gives pre-service teachers an opportunity to share ideas and make changes based on the feedback they receive. The interventions we are suggesting are global.
Kao, H-F
TamKang University, Taiwan

Building a teacher education quality system: A customer relationship management (CRM) approach

Customer Relationship Management (CRM) is regarded as not only a new strategy in enforcing the quality of products but also an avenue for enhancing customer satisfaction. Currently the strategy for managing teacher education quality in Taiwan is accreditation and evaluation. However, research indicated that the standards of evaluation put too much emphasis on organization, faculty and curriculum that ignored the most important ingredient – student customers. Facing the challenge of losing competitive edge of teacher education programme in Taiwan, the purpose of this study was to construct a teacher quality system based on the concept of CRM for a teacher education programme in a university. Data was collected from questionnaires answered by teacher education customers – pre-service students, student teachers and in-service teachers. A quality system with 106 indicators was constructed to provide guidelines of self-study for teacher education programmes for the purpose of providing better services to meet customer’s needs.

Kissock, C
University of Minnesota, USA

Whose standards – yours or mine?

Teacher licensing bodies, teacher education institutions, and teacher educators around the world use standards to guide practice and assessment of teacher performance. These statements are thought to be unique and only applicable to the setting in which they have been developed. Affirming our experience in working with universities in Canada, USA, and UK recent research by the Scottish General Teaching Councils and government departments of the UK and Ireland, has shown ‘...a considerable convergence in terms of what is required of teacher trainees. Areas of divergence are on a more cosmetic level...’ and suggests that ‘...standardisation of the ways that the standards are presented, ... would reduce system difference and encourage swifter mutual recognition of teaching qualifications...’

This paper, through review drawing on experience and published data, presents examples of standards from different settings and asks that we all accept a common set of basic standards and acknowledge that ours is a global, not local, profession.

Koç, E M
Anadolu University, Turkey

An investigation of cooperating teachers’ roles as mentors during the teaching practicum at blended B.A. programme in ELT

This study investigated views of teacher mentors working with 4th year student teachers on a blended English Teacher Training Programme. Across Turkey, 432 cooperating teachers and 2463 student teachers in 74 cities participate in the teacher practicum at Anadolu University Distance B.A. Programme 2006-2007. This presentation discusses findings from a questionnaire focusing on: preparation for the mentor role, providing moral support, facilitating socialization with staff, providing facilitative information, giving feedback on lesson planning and teaching performance, evaluating the student teacher’s teaching performance, interacting with other cooperating teachers, facilitating the student teacher’s autonomy, and assumed mentor responsibility. The findings have implications for the role of the Distance Education Programme in strengthening links between the faculty and the school. If cooperating teachers have a clearer understanding of their roles, they can work more effectively with student teachers. Opportunities could be provided by organizing face-to-face meetings to share information and review responsibilities.
Komhiol Teng Waninga  
*University of Goroka, Papua New Guinea*  
The Challenges facing elementary education in Papua New Guinea (Distance paper)

In the education reform of 1993, elementary schools were established by the districts and provinces, with the support of the National Department of Education. Poor planning by some provinces caused the rapid expansion in the number of elementary schools resulting in problems with the registration of schools and teachers not being paid for long periods of time.

A mixed mode teacher-training programme was implemented leading to the Certificate in Elementary Teaching awarded by the Papua New Guinea Education Institute (PNGEI). The three-year programme had three components: residential workshops, home study based on self-instruction units, and supervised teaching. Many critics argue that this programme is inadequate and that all teachers need a sustained tertiary-based initial teacher education programme.

This paper addresses the challenges facing the PNG elementary school system. It questions many of the assumptions on which change has taken place in the past and are proceeding. It will be of particular interest to PNG policy makers, the teaching profession and international donor agencies which significantly contribute to education reforms in developing countries.

Lacey, C  
*University of Wolverhampton, England*  
**Becoming an ESOL blogging village: language use and identity formation in student teachers using an educational blog (teacher education theme)**

As we move into a world more versed in e-learning and communication, it seems apt to explore the use of blogging in an educational setting. In this paper I examine the language-in-use and the types of relationships that are developed via this language through a blog. I locate the site of study in a small group of PGCE(Post Graduate Certificate in Education) students on subject specific (ESOL - English for Speakers of Other Languages) course at a university in the UK. My inquiry begins with a question - would the language use and practices of the blog demonstrate the construction of social roles and social learning and reveal ‘ways of becoming’ an ESOL student teacher? Using the works of Gee (2005), Lemke (2002) and Lave and Wenger (1991) I tentatively suggest four specific identities the student teachers assume, through their language and actions on the blog, namely sourcers, seekers, helpers, group-maintainers, as well as identifying where they seem to be acting as either old timers or newcomers.

Lebeloane, L D M and Madise, M J S  
*University of South Africa (Unisa), South Africa*  
The ‘Beautification of Schools’ campaign as an environmental management tool

Managing and protecting the environment with the aim of preserving it for future generations is a global concern and challenge. The factors are important to be shared and contextualised. The ‘Bontle ke botho’ campaign – Gauteng’s clean and green campaign - serves as one of the vehicles to address this concern and challenge. One of its aims is to attain a healthy environment and to manage the environment in Gauteng’s municipalities, wards and schools. In schools, this campaign is called ‘beautification of schools’ This paper focuses on that because new directions in teacher education and professional development also include the ‘beautification of schools’

School learners have to manage their school environments through an environmental management system which can enable any organisation to increase its sensitivity towards the environment and the impacts it may have directly or indirectly on the environment. This paper reports on how the ‘beautification of schools’ campaign as an environmental management tool was evaluated against the identified principles of environmental management system. A qualitative approach was used to gather information from school inspectors, educators and learners in those schools which had participated in the ‘beautification of schools’ campaign.

This paper relates to the conference in that it is expected of teacher educators to continuously undergo professional development on issues such as environmental crises, etc. It is at such continuous professional development programmes that they can acquire skills on managing the environment.
Lewis, A
University of Stellenbosch, South Africa

A critique of stress management skills for primary school children in the South African curricula

Calls in the media have been made for stress management training to be included in the Life Skills (LS) curricula in South African schools in order to stem the tide of teenage suicides in South Africa. Given the pervasive phenomenon of teenage suicides and other life threatening conditions caused by stress, the question arises if the need to address stress management skills should not already be promoted in primary school and not only in high school. In the light of the foresaid, the following problem statements arise: Do LS programmes in South African primary schools (sufficiently) include stress management skills in its curricula? If so, what then specifically, and if not, what can be done to support this by means of Continuing Professional Development (CPD). The aim therefore of this paper is to critically analyse the current primary school LS curricula regarding stress management skills and to come to some conclusion/s in order to contribute to educational practice through CPD in South Africa and possibly internationally. Stress is both a specific and universal phenomenon and this critique could possibly have benefits for children in other contexts, other than South Africa.

Lord, D
University of Huddersfield, England

The use of virtual learning environments in vocational teacher education

The paper reports on research carried out during a collaboration project, which took place from 2003 to 2006, and involved a number of European institutions delivering initial teacher training (ITT) for vocational education. The ITT provision of project partners in the UK, Finland, Portugal and Hungary was compared, and opportunities for curriculum development identified. A comparison of the current practices and experiences in the use of virtual learning environments (VLEs) by the partners was undertaken, and a common module delivery programme, incorporating VLE usage, was developed. The project provided guest access to the VLEs of other countries, allowing trainees following the common module programme to compare and evaluate different VLE platforms.

The paper charts apparent trends in VLE acquisition (from user-designed, ‘home-spun’ systems, through proprietary systems such as Blackboard©, to ‘open-source’ environments such as Moodle©), examines the factors affecting VLE choice, and makes recommendations for the effective use of VLEs in vocational teacher education courses.

Mably, C
Educational Visions, USA

Evaluating teacher professional development within the USA’s ‘No Child Left Behind’ legislation

The USA’s ‘No Child Left Behind’ (NCLB) legislation will almost certainly be viewed as a political success for its President, and it is unlikely to become a victim of any change of administration. It is perhaps best known for imposing high stakes testing in schools the results of which determine a school’s ‘report card’ status and administrative consequences. However, one of its key strategies is the promotion and funding of teacher professional development (PD) in mathematics and science involving partnerships between state departments of education, local school districts, and teacher professional development providers (usually universities but can include private, commercial, or other sectors). Not surprisingly, the federal US Department of Education’s cash for this PD comes with some strict rules of engagement. This paper will examine the context and contradictions presented by NCLB, its inherent political/educational divide, and offer implications from an international perspective.
Increasing research capacity and productivity to facilitate improved University output – the case of Unisa

Research is one of the primary vehicles which facilitate development in any society. Universities serve as, among other things, venues from which research is conducted to create knowledge and disseminate it. They also serve as venues at which research capacity is built. It is also in those venues, among others, that both research capacity and productivity are increased to facilitate improved output. Like other universities, University of South Africa (Unisa) has, as one of its defining characteristics, the long term investment in the creation of new knowledge. It also aims to add to knowledge through basic and fundamental research and to increase its research capacity and productivity in order to improve its output.

This paper wishes to focus on increasing research capacity and productivity in order to improve output at Unisa. In order to do that, a brief background of Unisa will be provided. That will be followed by a description and discussion of what Unisa does to increase its research capacity and productivity in order to improve its output. Unisa’s research policies and the management thereof will, among others, constitute the discussion. It is from the above description and discussion that conclusions will be drawn. This paper is relevant for an international audience because it shows how research could contribute to the future of teacher education and professional development through a case study.

Mahmood, N
University of the Punjab/University of Leeds, England
Elementary school science teachers’ belief about science and science teaching in constructivist landscape

This study explored the proximity of the science teachers’ beliefs (both practicing and prospective) to the constructivist principles of learning to foresee the future of constructivist teaching in science. Five domains were identified in which teacher’s beliefs were more likely to affect the classroom practices which were inquired through a questionnaire comprising of 28 statements encompassing five domains. The data was collected form 314 teachers, which include 159 Japanese practicing teachers, 85 prospective science teachers studying in a teacher training programme, and 70 Pakistani science teachers. Overall there views were reasonably pro-constructivist but by type there was significant difference in their perception of nature of science and science teaching. Japanese teachers were more constructivist compatible than Pakistani teachers overall. The enriched understanding of the teacher beliefs helped in assessing the possible difficulties facing us in making classroom a place for knowledge construction and by implication reiterated the need for deliberate attention to beliefs held by teachers about science and science teaching in addition to the expertise in content to develop a consensus on means through which science is learned. This will enable them to create a classroom suitable for learning of science.

Mahmood, S
Auckland University of Technology, New Zealand
Teacher educators’ views on older women students in early childhood education professional preparation programs

The aim of this study was to examine early childhood teacher educators’ views on older students, those who were aged 50 and above. These older students are likely to be women from the lower socio-economic group. Hence, this study is exploring the interaction of age, social class and gender on students from the early childhood teacher educators’ perspective. This research was conducted in New Zealand. Eleven participants were interviewed. The findings indicated older student’s strengths, weaknesses, and factors that can contribute to their success in educational programs. A number of challenges were identified which reflected the economic and cultural capital that these older women lacked. The study has implications for early childhood teacher education and educational policy-makers. The differentials of aging, gender and class require an appropriate response from institutions and academics.
Malik, R
*University of the Punjab, Pakistan*

**Teacher competency and student achievement**

The present study focused on the identification of teacher competencies required for the acceleration of student achievement at the secondary level. All the students of grade IX & X (400) and ten teachers (100) from the 10 selected schools were taken as sample of the study. The sample was equally divided by gender. Student achievement was determined by taking grades of students in the previous two school examinations. The total number of teacher competencies selected for the study was thirty eight grouped into six categories, namely personal, social, cognitive, pedagogical, communication and evaluation. Assessment of teacher competence was measured using a questionnaire for teachers and an observation schedule. The analysis of data is under process. Correlations will be calculated between students’ achievement scores, and overall teacher competencies, both by major groups of competencies and separately for each competency. Detailed probe into the teacher competencies and students achievement will be carried out by correlating each competency with the students’ achievements. The paper will provide an opportunity to educators to discuss and develop workable guidelines to improve pre-service and in-service teacher education programmes. It will also contribute in preparing norms for recruitment of teachers and in framing suitable curricula for teacher education.

Maurer, J
*University of New England, Australia*

**From cocoon to butterfly: Charting development of self-efficacy in a cohort of undergraduate teacher education students**

Professional development, development of self-efficacy and mentoring/protégé relationships are issues of international relevance in teacher education. This paper charts the development of self-efficacy in a cohort of 12 undergraduate teacher education students in an Australian university. The author is a registered psychologist with a 30-year career in teaching developmental and educational psychology. He has a particular interest in the development of self-efficacy in young adults and the role that the style of teaching, assessment and feedback has on developing belief in self. He has presented papers on mentoring and development of self-efficacy at several previous ISTE Seminars.

The paper is a work-in-progress case study. It cites interviews with undergraduates identified in their first year of university study to be part of a group preparing to host the ISTE 2008 Seminar in Armidale, Australia. Students were invited to express interest in participating, taking on the role of student participant with a view to writing and presenting a paper at the Seminar by which time they would be in their fourth year of study. The paper documents initial enthusiasm, questioning one’s own ability to succeed and the mentor – protégé relationship used to facilitate growth in self-efficacy.

Mazzaro, A
*Montclair State University, USA*

**‘What every student needs: A high-quality teacher’**

In order to prepare students for demands of the 21st century, it is critical to provide them with the knowledge and skills necessary to achieve their potential. It is impossible to properly prepare students if there are too few high-quality teachers to instruct them. However, many teachers graduate feeling inadequately prepared to teach science and mathematics. Universities have failed in preparing ‘quality’ teachers in those areas that can help students get ready for the technological and problem-solving demands of the workplace. To assist teachers in their professional improvement, the centre for Professional Resources in Science and Mathematics (PRISM) is starting a three-year project to generate lifelong learners, with strong and relevant understanding of subject-matter knowledge.

This paper will explain how the programme will be implemented in July 2007 and the support the participating teachers will receive throughout the academic year. Because the preparation of high-quality teachers is a concern in many countries, I believe this paper will be of interest to the ISTE participants.
McMillan, J  
*Somerset Board of Education, USA*

**The senior advantage: Integrating seniors with expertise, experience and wisdom into K-8 Curriculum**

The school district of Warren Township, New Jersey, USA, a suburban community of 15,000 about 50 miles from New York City, has developed and implemented a programme to utilize years of knowledge and expertise of its senior residents in its schools. Children from ages 5 through 13 have opportunities to gain appreciation, insight and factual information by spending time with interesting people who have travelled, explored various occupational fields at home and abroad, met people from vastly different cultures, read and written books, invented, conducted research, created art, solved problems, contributed to their communities as volunteers, and who continue to lead interesting full lives. These exciting introductory exposures often inspire students’ curiosity and foster their desire to further explore opportunities for life choices.

The teacher's knowledge about the particular topic or subject matter is also expanded when this dimension of expertise is added to the classroom. Such a programme has appeal to any multinational audience concerned with how best to integrate practical knowledge gained through experience with classroom teaching and learning. This paper will explain how to begin such a programme, how to keep it fresh and exciting, how to determine and assess the benefits to all stakeholders, what works best and what still needs improvement.

McSeveryney, A  
*General Teaching Council for Scotland*

**Comparisons between Computer Mediated Conferencing and face to face communication in teacher continuous professional development (CPD) in Scotland**

This paper considers comparisons between Computer Mediated Conferencing and face to face communication in a context of teacher continuous professional development (CPD). These two forms of communication have much in common. For example, facilitator input can be vital in planning and structuring effective sessions and in responding to group and individual needs.

The technology used to support collaborative learning will vary according to the national and local context, but wherever and however it takes place, collaboration can facilitate faster and more effective learning.

My context is a consultancy for the General Teaching Council for Scotland (GTCS) working on the GTCS website to develop and promote the innovative Chartered Teacher programme and to provide quality support to teacher candidates and adviser/assessors. Scotland’s Chartered Teacher programme offers recognition to experienced classroom practitioners for participation in high quality CPD, either through a Masters degree or through accreditation by the GTCS of prior experiential learning.

Mikl, J  
*Vienna University of Economics and Business Administration, Austria*

**Challenges for pedagogy in the ‘knowledge society’**

The paper tries to give answers to the problems raised by the new demands on education in the ‘knowledge society’.

The guiding ideas of present education policy in the European Union (EU) are oriented towards securing competitiveness of societies, employability and inclusion of individuals. The pedagogical conceptions underlying these educational policies are unclear, but the initiatives focus mostly on forms of learning and acquiring and promoting competences. However, the demands on individuals in the knowledge society point to expectations regarding creativity and self-dependence which require more personality-oriented approaches. The paper draws attention to some former conceptions which dealt profoundly with the problems of forming individual personalities and discusses their relevance for a new pedagogy for today that meets the important task of making individuals not just ‘employable’, but to enable them to master their lives under the new conditions.
Furlong and Oancea (2005) offer a framework for judging applied and practice-based research in relation to university education. Concurrently, in Scotland and other international contexts, there is encouragement of teachers to undertake action research projects in their own institutional settings or to enroll in postgraduate or continuing professional development courses which incorporate research activity and skills training. At the advanced level of Masters and professional doctorate courses in education assessment criteria of research competency are framed to match higher degree requirements. The proposition of this paper is that research skills training offered in teacher education institutions may be based on the theoretical and abstract model of research deriving from the academic context of higher education whereas applied research activity as required by these disparate cohorts of professional practitioners may merit a different kind of training as preparation for evidence-based adjustment of practice. This paper offers findings relating to the issue.

Müller, H
University of South Africa (Unisa), South Africa
Statistical support in educational research: Moral obligations and ethical considerations which affect the format and extent of statistical support rendered to researchers

This paper is based on the assumption that all quality educational research requires sound statistical validation. The author will argue the case for the need for statistical components in research in teacher education for professional development, including studies undertaken for Masters and Doctorates with a quantitative research design. Providing appropriate statistical support to students and/or student educators or teachers engaged in professional development poses a challenge not to be ignored.

Part and parcel of scientific research is the application of accurate, honest and objective research practices. This adds a moral component to scientific research (De Vos, 2005:56-69). From a statistical perspective, the level, extent, format and ethical responsibility involved in statistical support to the educational researcher remains a contentious issue: Too little support often leads to misconceptions which might lead to the misinterpretation of results, whilst 'too much' support might result in essential educational research findings being dominated and obscured by theoretical discussions on statistical issues. Although a scientific approach to research is essential, statistical support should not transgress on the educational field and overshadow the essence of educational research. How best to address ethical responsibilities in rendering effective statistical support in developing professional educational researchers is addressed in this paper.

Napper, V
Weber State University, USA
The new mentors: Questions about field-based experiences in pre-service, distance delivered, teaching certification programmes

The international implication of this review is to increase understanding of the mentoring interactions between faculty, students, and collaborating teachers across distance learning environments for skill based experiences in teaching certification course. For centuries the heart and soul of teaching has been mentoring of new teachers by master teachers. Tradition has guided the process of growing a seasoned teacher from a freshly budding student, but not anymore. Teacher education has become the innovative laboratory of learning. Truly innovative procedural changes are taking place in licensure practices of distance delivered programmes. Potential research questions include: 1) How are the students in online environments learning the people skills they will need in the most human intensive job on the planet: teaching? 2) How are field-based experiences being mentored? 3) Whose and what values are guiding field experiences: institution or teacher? Quitadamo, teacher/mentor for the Western Governors’ University (USA) online teacher education programme says, ‘Internet-based, distance learning solutions may prove effective in facilitating advanced study coursework for remotely located, place-bound students. However, the conditions for promoting online learning success have not been entirely defined.’ My paper will explore these research issues to raise questions for future descriptive research.
Nel, M  
North Western University, South Africa  
The training needs of in-service as well as pre-service educators regarding the support of learners experiencing barriers to learning  

Since the adoption of the Salamanca Statement in 1994 by 92 governments to make fundamental policy shifts towards inclusive education, the South African education system has gone through a process (still progressing) to change to a socio-ecological (inclusive) education system. In this system the intensity of the need of the child should be addressed and dealt with in any given context. Draft policies to put inclusion into practice are being piloted. These policies depend on all educators having the knowledge and skills to identify and support learners experiencing barriers to learning in any given context. This notion compels the higher education institutions to revisit their teacher training strategies with pre-service as well as in-service teachers but a pilot study has suggested that teachers have not been adequately trained and need knowledge and skills to be able to address their learners’ specific needs. This paper reports on a three year project to research what knowledge is needed to support those experiencing barriers to learning, identify training needs and develop training strategies and materials. The study will involve a review of the literature and survey of current understanding and training. Since inclusive education is a worldwide movement this research study could be insightful for other countries and exchanging inputs could be stimulated.

Newman, E  
University of the West of England, England  
‘I’m being measured as an NQT, that isn’t who I am’: An exploration of the experiences of second career teachers entering the culture of the primary school  

Located within the policy context of retention of teachers, a challenging issue for government in the UK also reflected in the US and Europe, this paper focuses on six newly qualified primary teachers (NQTs), who have worked in other spheres and changed career to teach. Such teachers are actively recruited by the Teacher Development Agency and make up half of new teachers (Times Educational Supplement: 2006).

Using constructivist grounded theory methodology the ‘voices’ of 3 men and 3 women are captured as they are inducted into the culture/community of practice (Wenger: 1998) of the primary school. Characterised as experiencing harmony, dissonance and discord in relation to their schools and their own expectations, findings suggest that ‘being managed’ was their key concern, previous work experience was variably capitalised upon and life stage was significant for job satisfaction/retention. There were also elements of gender at work. This meant that the men had less access to, and/or responded less positively to the induction process but accessed wider professional development.

Ngoepe, M  
University of South Africa, South Africa  
Identifying classroom interaction using an analytical tool in selected South African disadvantaged schools  

Over the years, researchers of classroom practice have developed, and used, various frameworks and classroom observation instruments to study teaching and learning. This article identifies the classroom interactions between the teachers and the students in selected secondary mathematics classrooms in South African township schools. Twelve lessons of eight teachers were analyzed using the Secondary Teaching Analysis Matrix framework of Gallagher and Parker (1995) to classify teaching into didactic, transitional and conceptual teaching. The classroom interactions were found to be predominantly didactic. This means among other things that there was little student interaction about subject matter; short answers predominated; there were few student questions and student-student interaction was rare. The findings will be used to guide future professional development intervention programmes to improve interaction during mathematics instruction. This paper has significance for an international audience even though the research was conducted within a South African context. Interaction between the teachers and the students is a general instructional issue across classrooms of any nation. Valuable lessons for professional development could be learned from the paper that will provoke debates and possible future studies in different contexts.
Nkopodi, N
University of South Africa, South Africa

Teachers’ perceptions of a primary science project

The South African Agency for Science and Technology Advancement (SAASTA) has embarked on a project to promote science in selected disadvantaged schools by organizing a primary science day. The project started by identifying a theme which would be of interest to teachers and organizing workshops where teachers could perform experiments related to the theme. During the workshops teachers used science kits provided. The purpose of this study is to determine teachers’ perceptions of the project so that this could be improved and offered to more schools if it is perceived to have a positive contribution to teaching practice. Focus groups were held with some of the teachers. In addition, questionnaires were administered. The majority of the teachers applauded the project. The implication of these findings is that if a chosen theme and workshop are perceived to be interesting and relevant, then teachers will be keen to undergo professional development. Teachers across the world will have their perceptions which may differ between countries but nevertheless cannot be ignored in professional development.

Oberski, I
University of Stirling, Scotland

Teacher Autonomy/Student Autonomy: an holistic exploration

The Curriculum for Excellence (CfE) for Scotland aims for young people to develop into responsible citizens, confident individuals, successful learners and effective contributors. It recognises that teachers need more ‘freedom to teach in innovative and creative ways’ (Scottish Executive 2006, p. 16). While the CfE is yet to be implemented, in the light of these proposals radical changes are needed to initial teacher education (ITE) courses, as teachers themselves will need to become responsible, confident, successful and effective as well as autonomous, free and creative. Scotland has a rigorous framework for the accreditation of teachers, based on a set of teacher competencies, which does not self-evidently support these qualities. Indeed, the manner in which new teachers experience these standards and the infrastructure around them suggests the contrary. Internationally, there are varying degrees to which teacher education has become standardised. While this paper will explore the relevance of an holistic perspective on teacher education to the implementation of the CfE in Scotland, an international perspective, gained from discussions at the conference, will contribute to an understanding of holism in teacher education in general.

O’Brien, B
New Zealand

Cycling on in New Zealand education: Another round of curriculum and assessment reform

Most of the papers that I have submitted to ISTE have been concerned with some of the impacts of the major reforms of New Zealand education that followed the publication in 1989 of ‘Tomorrow’s Schools’. My final contribution to a paper group reports on two dimensions of the 1990s reforms, curriculum and assessment, that are now in the process of being revised yet again, presumably under the oversight of the current cohort of policy advisors, some of whom perhaps influenced senior administrators and politicians some decade and a half ago. I used the discussion documents that were put about during the 1970 -early 90s decades to compare the likely next direction in curriculum and assessment matters. That recent research has pointed towards the desirability of further reforms, a not uncommon international trend that means that New Zealand teacher educators will face many challenges as they adapt yet again their pre-service training programmes to the future needs of their student teachers.
Petrova, Z  
*University of Trnava, Slovakia*  
**Literacy in Pre-Primary Education: Students’ Educational Practice as a Bridging Component between Theory and Practice**

This paper provides general information about ongoing higher education reform in Slovakia with special attention to the way it influences education for teachers for nursery schools. One of the important advancements in nursery school teachers’ education which is influenced by this reform and which should increase the quality of teacher education in Slovakia, along with differentiating the character of diverse levels of vocational and higher education in education teachers for nursery schools, is the conception of students’ educational practice in these study programmes. The paper specifically explains:

- the conception of students’ educational practice in the bachelor study programme *Pre-school and Elementary School Education* (which prepares teachers for nursery schools) which aims to make the relation between theory and practice stronger and to deepen students’ understanding of relevant aspects of educational theory and practice
- how such a relation between theory and practice is reflected in a case of the course *Language Literacy in Nursery Schools* at the Faculty of Education of the University of Trnava and at the Faculty of Education of the Comenius University Bratislava (both in Slovakia) as a part of this study programme.

Poulney, V  
*University of Derby, England*  
**The epistemology of Secondary School Curriculum Directors on subject leadership**

The dearth of empirical studies and evidence for what subject leadership looks like in practice and within specific contexts has been well documented (Field, 2002, Gunter and Ribbins, 2003). In recognition of this paucity of evidence, and to build upon previous empirical research in the field (Poulney, 2006), this study examines leadership knowledge collectively held by a range of Curriculum Directors (Subject Leaders) working in a large comprehensive school located within an area of deprivation in the East Midlands. Teaching collaboratively with school leaders on an MA Education course, and using semi-structured interviews and reflective diaries, this study examines how and where Curriculum Directors formulate their knowledge of subject leadership. As a group working within the same school culture, but in differing departmental cultures, they are asked to examine the origins of their leadership knowledge, and to consider the influence of their specific subject department and school ethos on their leadership style. The outcomes of this research show that there is no ‘one size fits all’ when leading subject teams and that more attention needs to be paid to ‘the leader in context’ with respect to both department and school. Given the present organisation of how subjects are led in most secondary schools, nationally and internationally, this research will attempt to provide a means of understanding the relationship and impact of contextual leadership processes in action.

Pretorius, F  
*University of South Africa, South Africa*  
**Possible future directions for teacher education and development in South Africa**  
(*... I listen sometimes to the list of things that people want from a teacher, and I think they want God, walking on water.*)

Since the late 1980s, large-scale education reforms have been introduced in various countries in response to the increasing pressure to induce change that will rectify perceived deficiencies in the transmission of knowledge, skills and values required by modern economies. Teachers as well as their trainers have been singled out as scapegoats for the ills of societies. A barrage of criticism has been levelled at teacher training because of the stubborn refusal of some in teacher training to question the old orthodoxies and embrace different approaches.

In this paper research findings are highlighted that record the response of education systems with specific reference to their adjustment of teacher education. Conclusions concerning judicious future approaches to teacher education in South Africa are presented in the light of findings about overseas developments. Envisaged strategies include formal partnerships between teacher training personnel and identified reform-minded partner schools, a more rigorous core curriculum in undergraduate programmes, and intensively supervised and extensive clinical experiences. Some critical research questions are proposed as a revitalisation of research with regard to teacher education in particular is necessary.
Rasmussen, J  
Weber State University, USA  
**International comparisons: Teacher induction, mentoring, and retention**

Under the sub theme of New Directions on Teacher Education, this paper will explore and compare new directions in new teacher induction and mentoring in the United States and selected other countries. The presenters will also be looking for additional insights and ideas from participants from countries beyond those included in the initial comparison.

Many states in the US, including Utah, are experiencing severe teacher shortages. A variety of factors are contributing to this phenomena including: a declining number of students choosing teaching as a career, increased number of retirees from an aging teaching pool, increasing student populations and high attrition rate among new teachers. Various reports from across the US suggest that in this country 50% of teachers leave prior to reaching five years of service. Teacher Education Institutions and School Districts are becoming much more serious about developing effective teacher induction and mentoring programmes in an effort to retain teachers once they have attained licensure. We are interested in exploring what is being done in the US and Internationally with regards to these efforts.

Redford, M  
University of Stirling, Scotland  
**School based enquiries: Professional development opportunities**

This paper examines the professional networks created and utilised by teachers as they initiated and led collaborative professional enquiries in the final part of a Masters level course linked to an advanced qualification for experienced teachers. The paper discusses the different ways in which the teachers created a network of colleagues to undertake and support each enquiry, connecting with teachers across their school community. Initial investigation suggests that teachers used their own personal standing within the school to invite colleagues to join the group. This use of social capital to create the networks is explored in relation to the ways in which each collaborative group developed and supported professional practice.

The paper concludes with a discussion of the ways in which the enquiry networks were used to connect practitioners and support the professional growth of colleagues. It is suggested that collaborative professional enquiries offer a new structure for school communities to undertake professional development.

Reeves, J  
University of Stirling, Scotland  
**Researching knowledge transfer and creation as a key function of educating systems: Do we have the right tools for the job?**

Internationally there is a concern amongst policy makers to secure their place in the new knowledge economy. To that end a key function of continuing professional education in many countries is knowledge transfer and creation. This paper raises questions about our capacity to investigate this function using current approaches to educational research. Through the exploration of a particular case the paper outlines the movement of ‘an idea’ over a period of six years within systems associated with a postgraduate masters programme. This is a practice-based course aimed at educating teachers to achieve national recognition as accomplished practitioners. By tracking, through the medium of events and artefacts, the movement and transformations of the notion of professional enquiry we provide a narrative that raises a number of questions about current models for qualitative research. ‘The idea’ and its associated discourse, interacts and collides with other discourses and action in a variety of contexts. Standard investigative methods are inadequate to describe the spatial and relational complexities of this process. It requires the development of a new set of conceptual tools.
Roux, C  
*Stellenbosch University, South Africa*  
**The participation of pre-service teachers in the development of a new pedagogy in the context of religious and cultural diversity**  
Understanding and facilitating religious and cultural diversity require a special approach in teacher training. Contextual dynamics and larger social-structural relations are very important for the development of pedagogical strategies when implementing a curriculum suitable for understanding diversity and inclusivity. Curriculum content on different world views (religions, beliefs and values) in various social environments, with the variety of social actors, does not only inform the way in which the curriculum is structured, but also how pedagogical strategies should develop. Social environments and actors (pre-service teachers) also influence the dissemination processes of the content. Research has shown that pre-service teachers’ perceptions and intrinsic knowledge of diversity and inclusivity influenced their approach towards classroom praxis in schools.

This paper will demonstrate the involvement of pre-service teachers (students) and the processes undertaken through action research in developing a responsible pedagogy in facilitating the understanding of diversity and inclusivity (different religions and cultures) in classroom praxis.

Schou, L R  
*Danish University of Education, Denmark*  
**Attitudes of Danish teachers towards Muslim integration into Danish society**  
This research project seeks to survey attitudes and values of Danish teachers towards the Muslim immigrant community’s integration into Danish society. Most people agree that education is the key to social and cultural adaptation and integration. If that is true, then teachers are the key to advancing that objective. But what do teachers think about their participation in such a national exercise? This project seeks to provide evidence of the attitudes of teachers who would be central in furthering integration of the Muslim immigrant community into Danish society. Such a survey would yield results useful for public discourse and public policy initiatives.

Denmark is a perfect national example for this research effort as its population is relatively homogenous, and researcher entrance to the teacher population manageable. Although survey results might not generalize to other European populations interested in finding out what teachers value about Muslim integration, the project might stimulate other countries to attempt similar research.

See, L-C  
*Gung University, Taiwan*  
**Effect of Computer-aided instruction on learning biostatistics**  
This study uses a cross-over design to assess the learning effect of computer-aided instruction (CAI) for a chapter on hypothesis testing in a biostatistics course. In May 2006, two classes of undergraduate nursing students participated. Sequence A had CAI+handout first, followed by lecture+handout, and sequence B had lecture+handout, followed by CAI+handout. Two equivalent tests with 10 multiple choice questions about hypothesis testing were given after the first presentation (posttest1) and the second presentation (posttest2).

Sequence A did significantly worse on post test1 than group sequence B. Both groups showed a significant increase in their scores after the second presentation. But there was a significant difference in the increase between the two sequences. CAI shows a better preview effect for learning the chapter about hypothesis testing. As teaching biostatistics is difficult in medical school, we believe using CAI for this may make a difference to the practice of teaching biostatistics. Students can preview a biostatistics chapter at home before class and teachers can quickly go through and clarify the chapter material in class. This paper will be of interest to other participants who experience similar difficulties teaching applied statistics, biostatistics, mathematics and to educators who develop CAI.
Senemoglu, N  
Hacettepe University College of Education, Turkey  
Approaches to learning and study skills of Turkish students in colleges of education

The first purpose of this study is to describe the approaches to learning by students in colleges of education in Turkey and the second is to develop recommendations to improve those skills so that they can communicate to their own students better ways to learn. It is important that future teachers possess and use effective strategies for their own learning in their pre-service education so that they will be able to provide their students with high quality learning approaches and study skills. To accomplish these purposes data were gathered from 1100 Turkish college students. The Turkish adaptation of ASSIST (Approaches and Study Skills Inventory for Students) which measures students’ approaches to learning on three dimensions (deep, strategic, and surface/apathetic) was administered. This paper will present the factor analysis of ASSIST and the answers to the research questions.

This study is of interest because it discusses similarities and differences in approaches and study skills of students who come from different countries and who study different subjects. This study can provide teacher educators with the knowledge as to whether college students’ learning and study skills are affected by their culture. The results of this study have implications for policy makers and teacher educators in our diverse societies as they draw attention to students’ learning approaches and study skills and the need to develop effective learning approaches and study skills during pre-service education.

Shehu, J  
University of Botswana, Botswana  
Physical education teacher education and professional development in Botswana: Epistemological challenges and institutional realities

Against the emerging changes in contemporary education and society, teacher education and continuous professional development have become essentially contested concepts, pulled in part by a confluence of forces. Increasingly, teacher educators, professional associations, the state and academic institutions are articulating notions of initial teacher education and professional development that are variously intertwined with the discourses of outcomes, school reforms, globalization, critical pedagogies, information technologies, new epistemologies and a host of other issues. Naturally, physical education teacher education (PETE) is being profoundly affected by this ferment just like other occupational groups within the education sector. In recognition of the embedded tensions in teacher education in general, this paper specifically analyses the nature of PETE in Botswana. The aim is first to examine the physical education diploma and degree programmes in Botswana as a reflection of these embedded tensions, but even more as a backdrop against which to appreciate the need for alternatives in the light of international trends and gritty realities of the local context.

Sheridan, D  
Weber State University, USA  
English as a second language students and teacher preparation

In today’s increasingly multi-cultural world, continuing professional development for teachers is important. As part of that development teachers need to be aware of both the linguistic diversity and cultural frameworks which inhibit and sometimes prevent English as a Second Language (ESL) students, from realising their potential. Reading, the basic form of instruction for most students, is hampered by many factors; L1 (first language), instructional methods used in L2 (second language), culture shock, and preferred learning styles. This paper, issuing from my MEd thesis argues for more recognition of challenges and accommodations which could easily be realised to level the playing field for more students. The face of education could be improved. Today’s students face many extra curricular challenges to developing good reading levels and habits. The benefit for L1 and ESL students and teachers alike would be maximised across the curriculum, if cultural education and ESL instruction were included as basic courses in teacher training.
Poverty and diversity in the United States are essential to any discussion of educational reform. Current research indicates that poverty among American children may be as high as 22 percent, that many live in central-city neighbourhoods or isolated rural areas, and that many children suffer from long-term poverty (Ng & Rury, 2006). The United States is also experiencing an increase in cultural diversity. Approximately 1.3 million immigrants came to the U.S. yearly in the 1990s and over 3.3 million immigrants settled in the United States between January 2000 and March 2002 (Tagger, 2006). According to the U.S. Census Bureau, immigration will increase the population from the current 288 million to 400 million in the next 50 years (‘Current Numbers,’ 2004). Increased immigration is accelerating cultural diversity in K-12 schools. The literature shows an absence of well-defined research that addresses the preparation and professional development of teachers who will educate children from diverse backgrounds or affected by poverty.

This study examines the role of teacher attitude and beliefs in addressing poor and culturally diverse student populations. In the 21st century, both teachers and students will need to recognize that perspectives other than their own exist....‘the question is no longer whether education will be influenced by globalization, but rather how’ (Sleeter, 2003, p.8).

Simonsen, B
Agder University, Norway
Trained and retrained – development of a bilingual bachelor degree

About 10% of students in the primary school in Norway are immigrants and represent more than 200 different languages. However, the teachers they meet in school are mostly Norwegian, brought up and educated in the Norwegian culture and language. The immigrant children often lack support and role models to be inspired to apply for further education, and the Norwegian children meet few adults representing other languages and cultures.

In 2002 a project was initiated from the Ministry of Education and representatives from six university colleges to bring immigrants with teacher education from their home countries into a new study programme. This programme should offer content for ‘transformation’, not only to be a Norwegian teacher, but to develop special skills as bilingual and bicultural teachers. The question posed in the paper will be how these teachers constitute their role. What kind of training do they need, and how do they use differences as a basis for understanding both old and new knowledge?

Sinclair, C and Woodward, H
University of West Sydney, Australia
Retaining the best and the brightest: The role of motivation in teaching commitment, retention and quality

A worldwide teacher-shortage is developing due to teacher resignation and retirement and falling enrolment in teacher education programmes. Even those who enter teacher education programmes may not complete their studies or leave teaching within the first few years of professional practice. The proposed paper adopts a trans-theoretical approach drawing from motivational theories, adult learning theory, career-stage research and teacher education literature to investigate first year teacher education recruits’ motivation to be primary (elementary) teachers, their potential commitment to and retention in the teaching profession, and the quality of their teaching practice.

It extends earlier quantitative research on why these recruits chose to become teachers, and changes to that motivation after their first practicum (Sinclair, Dowson & McInerney, 2006). This paper will present results from qualitative analyses of recruits’ self-reported entry and changed motivations to teach, their commitment, and their intentions to remain in teaching following their first practicum. It will also present the recruits’ self-analyses of their teaching as well as the practicum supervisors’ assessment of that teaching.
Sisson de Castro, M  
Pontifícia Universidade Católica do Rio Grande do Sul, Brazil  

Educational leadership changes in a decade: Superintendents of municipal education in South Brazil

The relation between education and social context was established regarding social changes in a period of ten years and the characteristics of municipal superintendents of municipal education in South Brazil. An initial empirical study of municipal superintendents was done in 1994 and a similar one in 2005. The results indicated that several changes occurred in the socio-educational profile of educational leaders. In 2005 the superintendents are more professionals, better educated and more politically involved. Their job situation was improved with stability and public examination for employment. They are older, and the majority had some graduate work. In 1994, they were younger; less educated and had another remunerated activity. In 2005 they are more professional. The salaries are still low, with no significant change. In 2005, the majority was educated in a local university. One of the main changes in the period was the growth of the political dimension in the management of municipal education.

Sline, R W  
Weber State University, USA  

Teacher training outside their discipline: An assessment of a seven year CPD experiment

The results of a study to assess the effectiveness of a longitudinal experiment in continuous professional development (CPD) designed to provide high school English teachers with the knowledge and pedagogical competence to teach a university-level course in a subject area outside their discipline of professional training will be reported.

In response to employer need for high school graduates with improved human communication and teamwork skills, a university partnered with local secondary schools to create a ‘concurrent enrolment’ version of its Interpersonal & Small Group Communication course. Teachers with degrees in English, not Communication, are certified as part-time university faculty to teach the course in their high schools. Two methods of training have been employed, each with the intention of immersing the teachers in the content of the course and teaching them how to deliver the content using cooperative learning and service learning pedagogies. The present study is designed to obtain teacher perceptions about this CPD experiment including: (1) effectiveness of the course content, resources, and delivery modes; (2) effectiveness of initial certification and in-service training programmes; (3) effectiveness of University support systems for the teachers; (4) teacher confidence level in delivering course content; and (5) teacher satisfaction with teaching the course. The need for employees with effective communication and teamwork skills is universal among corporations throughout the world. Therefore, international educators may benefit from understanding this CPD model for preparing public school teachers to fulfil this need.

Smith, C  
Caldervale High School/University of Stirling, Scotland  

A new concept of teacher-researcher?

The Early Professional Learning Project cuts across the norms of teacher engagement in research in a number of ways:

• Teachers are from different subject backgrounds.
• Collecting data is a prime responsibility.
• The focus is not on their own, or their school’s, practice but on a topic (the experiences of new teachers) across schools and authorities to draw general conclusions.
• Data was first gathered in their own schools, then in other schools at their own level (secondary) and subsequently at a different level (primary).
• It involves a real working partnership between the academics’ knowledge of research and teachers’ ‘insider knowledge’, so that they influenced the research process and, to an increasing degree, led to them presenting their own ‘takes’ on the data.
• They developed their own identity as a coherent team that complemented the academic researchers in dissemination.

Is a new concept of teacher-researcher beginning to emerge from these features?
Solar, M I  
*Universidad de Concepción, Chile*  
**University teacher beliefs and classroom practices and their impact on the teaching-learning process**

The present paper is an account of the first stage of a research project being developed in two Chilean Universities. The general aim is to understand and determine the convictions and behaviour of the non pedagogic university professors, in relation with the management of the didactic variables that interact in the teaching-learning process. This research is an explorative descriptive study, congruent with a case study. The subjects under study are 40 professors from the Engineering, Health, Biological Sciences, Physical and Mathematical Sciences, Social Sciences, Psychology, Economical and Administrative Sciences areas. Data was collected on the age, background and teaching experience of the non pedagogic university professors. In addition to recorded observations the techniques used to collect data consisted of: a questionnaire to observe events in the classroom; semi-structured interviews; a questionnaire for the professor; an evaluation of the pattern of the students learning outcomes and auto-reflection. These techniques were validated through an examination of the judges’ criteria and a pilot study.

Srikantaish, D  
*University of Maryland, USA*  
**Integrating indigenous knowledge systems in educational institutions**

Indigenous or traditional knowledge systems, which are referenced as knowledge existing outside of conventional knowledge systems, can act as a powerful tool in education and learning environments – particularly in countries that have been colonized. Curricula in these countries, which are often based on their colonizers’ education models, often can not support students learning using their indigenous knowledge. According to Easton (2004), however, indigenous knowledge can play a key role in education especially in ‘transmitting, accumulating, enhancing and transforming [it].’ Likewise, indigenous knowledge can contribute to the development of important learning models or patterns useful in education. Curriculum reform to address indigenous knowledge in primary and secondary school curricula and teacher education programmes can possibly alleviate the disconnect students may feel between school and home life. This paper discusses the institutionalization of indigenous knowledge systems in teacher education and primary and secondary school education and also provides case study examples.

Ssesanga, N  
*Islamic University in Uganda, Uganda*  
**Political turmoil, fiscal austerity and education: The case of improving primary teacher education in Uganda**

The proposal which is a product of scholarly scrutiny and reviews of published data, examines Uganda as a country, and how it’s socio-economic and political setting have influenced teacher education. To a considerable extent, post-colonial Uganda is a tale of economic crisis, frequent political and military conflict. Nonetheless, since the mid 1980's the education system has expanded rapidly pushing the primary teacher population from about 34,000 in 1980, to 79,000 in 1992. What would seem disturbing is that this quantitative expansion has not been met by a concomitant increase in quality (Ocitti, 1993).

It is anticipated that the paper by illuminating the impact of political, military and economic crisis on education has several lessons for teacher educators’ world wide. This could enhance the understanding of policy makers and the donor community of different perspectives and practices in teacher education particularly in low-resource and troubled countries. The paper argues that the extremely low levels of Uganda government financing for primary education leads to inequity in access to education and deterioration in its quality. In order to strengthen the effectiveness that has been achieved so far, issues of quality merit attention. Any discussion of the teachers’ role in the education system will inevitably concern the professional training of teachers both pre-service and in-service. For the Uganda government to improve primary teacher quality there is need to evolve a unified and corporate policy at national and school level to identify needs which might offer insights into new directions in teacher education.
Sutter, J and Sunderland, H
London South Bank University, England

A CPD framework for post 16 teacher educators

London South Bank University and LUK are currently working together on a DfES project to produce a CPD Framework for Teacher Educators in the post 16 sector, which will be published in September 2007. The ‘post 16’ sector in the UK refers to non- compulsory education, which includes adult and university education, as well as vocational training in Further Education Colleges. This paper will present the Framework in its current state of development, and consider some of the issues encountered during the project, including:

- What are teacher educators' current CPD practices?
- Should teacher educators' CPD be assessed, and if so, how and by whom?
- Where does ‘normal work’ end and CPD begin?
- What is the relationship between teacher educators' CPD and research?
- Should there be a national requirement / benchmark for teacher educators’ CPD?
- From an international perspective, some further key questions emerge:
  - Do teacher educators require a different sort of ‘training’ - either in terms of initial training or CPD - to teachers?
  - What sorts of professional bodies or communities of practice are best suited to providing support and development for teachers and teacher educators?
  - Are teachers and teacher-trainers in the UK positioned significantly differently from teachers and teacher-trainers in other countries in relation to government and wider society?
  - How autonomous are teacher educators, generally?

The authors are particularly keen to gain international perspectives on these issues.

Swierczek, P
University of Stirling, Scotland

Teaching - A welcoming profession?

The one-year induction scheme for new teachers in Scotland is innovative and enlightened. The criteria for full registration as a teacher with the General Teaching Council can be normally be met within a stable environment with statutory support and Continuous Professional Development (CPD) provided at both school and local authority levels. Throughout the course of the ESRC funded project on research into early professional learning (EPL), we have found that the experiences of new teachers on their school placements scheme are highly diverse. The overriding factor in all of their experiences is that of relationships within their respective schools. While the vast majority have a fulfilling and enjoyable year, a few are unfortunately the victims of behaviour verging on the unprofessional. Our perspective is that of practising teachers within the EPL research team (innovative in itself).

We shall:
- Summarise the findings from some of the interviews that we conducted
- Illustrate the extremes of positive and negative practices we have witnessed and outline their impact on new teachers.
- Outline principles of good practice in mentoring beginners in teaching, which we suggest, might apply across contexts and may transcend countries and educational systems.
The purpose of my paper is to expose my reflections and concerns in studying how the Palestinian teacher can reflect as a result of the initial teacher education programme at Bethlehem University. While using a critical ‘lens’ the paper will review some of the literature and highlight the main challenges in conducting research on reflective thinking. First it will provide the reader with some definitions of ‘reflection’ and how it determines the use of different methods in developing reflection among pre-service student teachers. Second, the paper will focus on the critical pedagogy, especially Paulo Freire approach as the main argument of this paper. The discussion will explain how this approach could fit the Palestinian educational context which is often characterized as occurring within an oppressed and conservative society. Finally, the paper will discuss some of the strategies and methods used by different studies and by my recent field work aiming to promote reflection among pre-service teachers and to highlight main issues that should be taken into consideration while developing my PhD research design. This paper will be of interest to all who face the challenge of encouraging pre-service teachers who come to university with traditional ideas about teacher roles to adopt positive attitudes towards child learning and reflect on their practices, attitudes and role as future teachers.

Taylor, A
Brunel University, England
Student teachers’ understandings of educational research

This paper presents the findings of a study concerning how student teachers in one context in the U.K. understand the term ‘research’. There has been a growing recognition of the value of teacher as researcher, and consequently, that student teachers should also develop such an approach to their work in classrooms. However, a review of the international literature shows a gap concerning how students themselves view educational research per se. Although no generalisations are made from this study, the findings will be of interest to those teacher educators in other international contexts who wish to consider further how student teachers’ thinking on ‘research’ might contribute to enquiry-oriented approaches to pre-service education.

Data was collected by questionnaire and semi-structured interviews with those on a secondary Post-Graduate Certificate of Education (PGCE) programme in one university in the U.K. The analysis shows three different ways in which students understand research. Firstly as a separate body of factual knowledge, received from expert university teachers, for practical application to practice. Secondly, as informal theory generated by students’ and teachers’ practical experience and embedded into existing beliefs and shaping the way teaching is approached. Thirdly, as constructed through an iterative relationship between research and practice, which can raise questions, examine assumptions and suggest alternatives. It is concluded that the third understanding is aspirational, and practical implications are discussed for initial teacher education courses in which both the using and doing of research as a means of professional development are employed.

Taylor, T
University of St. Thomas, USA
New pedagogies in teacher education: Climbing the engagement ladder

When teacher educators discuss ‘new pedagogies,’ we often refer primarily to the use of technological advances, technologies not equally accessible across the digital divide. In this paper, I argue that ‘new pedagogies’ should be considered in a much broader context, preparing global citizens for a new millennium, and that school change will happen only as teacher educators across the world provide opportunities for candidates to practise a more democratic, engaged, learner-centred education model. The systemic type of ‘new pedagogy’ I espouse can be practiced in any setting and is not dependent upon availability of equipment. The paper concludes by inviting participants to critique and share in my on-going quest to transform the education classes I teach. After major course revision, developed around my notion of an ‘engagement ladder’ and concepts from andragogy, class sessions now model more participatory, student-driven strategies, emphasizing learning over teaching, relevance over redundancy, and critical analysis over regurgitation.
Thomas, S
Weber State University, USA

Bringing service home

The Stanford model for service learning, which emphasizes public writing for a community, provides students the opportunity to create documents as their service project (Bowden and Scott 4). Other models require students to write journal entries or essays to reflect on their service learning experience. Teacher educators, at any educational level, could use the Stanford model to provide their students an authentic audience for a variety of university- and community-sponsored service learning projects.

In this paper, I describe a technical writing document design pilot project that paired junior- and senior-level university students with clients from University-sponsored organizations. Products varied depending on topic, but one group created a draft programme describing day-by-day activities for Accompanying Persons at ISTE 2009. Modifying the Stanford model to include University-sponsored organizations as clients provides students and educators with transferable skills and experiences applicable to an international audience. Student/client interaction in this scenario allows those involved to draft documents and revise them to meet actual client specifications. Using University-sponsored organizations as clients for service learning projects allows pre-service teachers to consider how best to use public schools as clients for authentic writing projects.

Tynyeva Sabyrovna, A
American University of Central Asia, Kyrgyzstan

Teacher as researcher – Taking action research

Many teachers argue that the problem with theory is that there is no practice in it. Educational researchers, with little or no teacher input, often make theory. In my paper I want to talk about the role of taking action research in the field of education; I wish to discuss this method of research as a teacher’s best chance at using critical inquiry to activate change, on their own terms and how it can answer far more complex teacher’s questions about curriculum, course management, or other large, multidimensional issues.

It is very important for teachers to know whether students truly benefiting from the time they spent in classes. I will talk about the levels of action research and how teachers are able to record and analyze the results of method of teaching by taking action research in their classes. I would like to compare some cases, to analyze why action research differs from formal research and how it brings impact on change in teacher’s practice.

Ukeje, I
Kennesaw State University, USA

The Masters in the Arts of Teaching Programme (MAT): A successful teacher preparatory programme for Georgia schools

The basis for the presentation of this paper is to describe an innovative programme that has been used to impact the challenges facing teacher education programmes in the State of Georgia in dealing with a shortage of highly qualified teachers in the schools. Teacher preparatory institutions in Georgia meet less than 50% of the needs of the schools in Georgia. School systems have had to develop strategies of providing temporary teaching certificates to meet the demands created by this shortage. Since most of these individuals have little knowledge of educational theory/practice, it allows unqualified individuals provide instruction to students.

The MAT Programme has become an effective solution to this problem. Teacher preparatory institutions like Kennesaw State University offer these programmes to individuals who would have taken the temporary teaching certificate route, obtain pedagogical training and a masters degree in education. This is an effective and efficient strategy for developing highly qualified and effective teachers for our schools. This solution is one that other institutions who value ensuring that we are not addressing a critical educational problem by putting a band aid on it but really reforming our educational programmes without diluting the instructional quality of these programmes.
Van den Berg, G  
Lyceum College, Johannesburg, South Africa  
Continuous Professional Development: How do we meet teachers’ needs?

Teacher education worldwide has been through a period of significant change in recent years. Changing curricula, as well as social, cultural and economic contexts have made continuing professional development more relevant and necessary than ever before. To address these changing demands, higher education institutions had to develop new programmes and adapt existing ones. For any teaching programme to be productive, teachers’ needs should be understood. This paper critiques the notion of ‘telling’ teachers how new curricula should be implemented, but argues for a model of continuing professional development which involves all important role players to attend to the development of teachers’ understanding of teaching and learning and to their subject knowledge. Professional development should also go beyond a specific curriculum and provide for teacher migration, which is, in the light of globalisation, a recent phenomenon. As the first phase of ongoing research, this paper draws upon a case study to share lessons learned to inform future programme development processes.

Vettraino, E  
University of Dundee, Scotland  
Creative learning and developing reflection: A case study in how to remove performance anxiety and enhance reflection through peer evaluation

This paper aims to explore the creative and critically reflective journey through process to product that occurs with an elected module (the Creative Learning Elective) within the University of Dundee’s BEd (Hons) Primary programme, a four year degree which qualifies graduates to teach in the Primary Education sector in Scotland. The Creative Learning Elective is an optional module that third year students on the BEd programme can take and is designed to develop their understanding of, and confidence in, approaching teaching and learning experiences in a creative way. Based on the experiences of tutors and students who have undertaken this course and focusing on the innovative process used for assessment, the authors consider the rationale behind the assessment methodology, its implementation and its impact on the student learning experience. In particular, we explore the benefits gained from peer reflection on performance as a way of reducing presentation anxiety. The authors suggest that assessing the evaluation of a performance as well as the journey the students take towards that performance encourages an understanding of creativity as a learning process rather than as a product. We present evidence that the process approach to assessment within the Creative Learning Elective module encourages real and deep learning (Eisner, 1994) and promotes a truly analytical and critical response to reflection.

This paper relates to international concerns in education through the connections made to the general themes within the Creativity World Forum in Ghent 2006, along with the current global emphasis on generating creative thinkers in education, industry and beyond.

Weiner, G  
University of Edinburgh, Scotland  
A field divided? Recent influences on teacher education and professional development in Europe

This paper provides an overview on policy-making in teacher education and professional development in Europe. It identifies five trends: continuing existence of traditional approaches, increased emphasis on professionalism, greater pressure to do research, feminisation, and impact of globalisation. It suggests that ‘Anglophone’ teacher countries can be equated with neo-liberal policy approaches while ‘European’ education policy-making is more strongly associated with social democracy. Both contain different emphases and priorities, but are also shaped also by specific national cultures and histories. The paper also draws attention to the difficulties of ‘traditional’ teacher education when faced with increased cultural diversity.
Whewell, C  
*University of Stirling, Scotland*

**Geographies of enquiring: Contextual questioning**

This paper seeks to explore the questioning nature of professional enquiry as an important and valid Continuing Professional Development (CPD) activity that can impact positively on practice. Currently research carried out by teachers often privileges a traditional view of research as an ‘objective’ investigation. This paper will propose a refocusing on professional enquiry as a transformative and experiential practice for individuals embedded in social processes. The paper will also consider the way in which differing socio spatial scales can lead to a more complex and dynamic view of enquiry. In the context of this the enquiring practitioner is considered to be different from a researcher because the ethical position of a teacher in relation to their class always has primacy, indeed they enquire as teachers with the professional obligation of improving conditions for the learning of those they teach. This paper is relevant to the current international interest in professional growth and development and the relationship of this to classroom practice.

Willis, J  
*Montclair State University, USA*

**‘Re-tooling a workforce of teachers in Mathematics and Science’**

Can teacher content knowledge be correlated with student achievement? This is a universal question that is not easily answered. The PRISM centre for professional development at Montclair State University in New Jersey, USA, has implemented a 3-year programme for teachers of grades 5-8 (ages 10-14). The PRISM programme has been designed in conformity with infamous federal legislation in the USA called ‘No Child Left Behind’ (NCLB). This legislation has been a source of controversy for its mandated nationwide student testing requirements, and for national teaching standards. Regardless of negative perceptions, NCLB has probably resulted in some much-needed changes in teacher continuing education. NCLB funneled funds into programmes that prepare a teacher workforce for deeper content understanding of science and mathematics. How have legislated CPD programmes been designed and implemented? What are some measures of their effectiveness? The educational outcomes and programme evaluation findings are documented in this paper.

Wilson, S and McCaughan, K  
*Brock University, Canada*

**Developing competencies for educators of adults**

Increasingly the continuing education of adults beyond school leaving age is seen as critical to maintaining the ‘knowledge society.’ Their education takes place in both formal and non-formal programmes. This raises the question of what are the core competencies that educators who develop or deliver these programmes bring to the varied settings? This paper reports on research that investigates the range of competencies that are desirable for educators of adults. The research methodology is quantitative and includes surveys and interviews of graduates of three undergraduate adult education programmes in Canada, as well as instructors and experts in the field of adult education. Comparison is made with a set of standards for the preparation programme of teachers (K-12) in one jurisdiction where K-12 teachers are certified by a College of Teachers.

Given that the education of adults across the world is identified by UNESCO as a huge need for the social and economic development of each society, the results of this research can offer some guidance to adult educators in many countries.
Wirtz, P  
*Northern Kentucky University, USA*  
**Graduate education that responds to school and teacher initiatives**

The key arguments of this paper are that graduate education programmes should be more directly tied to the demands placed on teachers, schools, and school agencies to raise student test performances. Also, a review of research and trends demonstrates that these ‘job embedded’ programmes seem to have a significant impact. Today’s school graduates increasing face expanding global competition. To determine if these students are prepared, schools, education agencies, and national school performances are being measured and compared through international and national studies. Since much research affirms that teachers are the critical factor for student success in schools, the role of the teacher must be studied.

Universities in various countries, in response, are tying graduate education opportunities and requirements of these teachers to their individual, school district, and government programme goals. This is often called ‘job embedded’ or ‘professional development embedded’ graduate programming. This paper presents a summary of key arguments for this growing practice and describes research on successfully implemented models.

Zufiaurre, B  
*Public University of Navarra, Spain*  
**Reorganising knowledge to reculture education: History or social studies at all compulsory key stages**

According to Seixas (2004), historical thinking is to be based on meaning, epistemological evidence, continuity and change, evolution and decline, empathy and moral judgement and historic compromise. This means working with historical knowledge and preserving the formative, functional, socializing and instrumental character of History, rather than past events or facts set in a chronological framework. In the schools of today’s mixed global world, the teaching and learning of History or Social Studies can be no other than a space for integration, inquiry, questioning, discovery, and the transformation of reality. Based on these premises, the development of active citizens ready for adulthood fits into the teaching of historical thinking, as there is enough evidence to show that youngsters preparing to lead a fully productive life do not need to develop historical thinking in the form of facts anchored in the past.

Being passionate about History does not mean teaching what are presumed to be objective historical facts. As long the learning process is tied to discovering the happenings of the past, which are related to the different waves of colonization of the different areas of the world, the corporate professional development of Historians will be set against the right of students from diverse backgrounds to learn about the circumstances of life. The modern order, which uses disciplined knowledge to discipline students, offers little future to students from diverse cultural backgrounds and circumstances. Teaching processes should be concerned instead with the sense and meaning of historical temporalization, historical understanding, the variables of multiple causality and the complexity of social facts.
8. Teacher education in Scotland
Janet Powney, ISTE Secretary General

Abstract
This descriptive account of teacher education in Scotland outlines the regulations affecting academic standards and qualifications and opportunities for continuing professional development. Five issues arising from current policies and practice in teacher education are briefly discussed: supply of appropriately qualified teachers, widening access to teaching, gender imbalances, partnership arrangements and keeping pace with policy changes in schools.

Introduction
Scotland’s distinct educational system dates back to the time when it was an independent country with its own Parliament, before the Act of Union with England in 1707. Along with England, Wales and Northern Ireland, Scotland is now part of the United Kingdom, governed by the UK Parliament sitting in Westminster. However, following a referendum in 1997, in which nearly three quarters of votes cast in Scotland were in favour of the establishment of a devolved government, a separate Scottish Parliament was reinstated in 1999. This can legislate on matters devolved to it by the Westminster Parliament. These include health, housing, social work, most aspects of criminal and civil justice - and education. There is a Scottish Minister for Education and Children and a Scottish Executive Education Department (SEED). The compulsory age to attend school is 5-16 years. Secondary education begins at 12 years and some students who wish to proceed to higher education stay on at school till 17/18 years or transfer to a further education college to complete their pre-higher education studies.

Background and historical context
Scotland is a small country with a population of just over five million. The overall numbers of students in higher education is just over a quarter of a million in colleges and universities and a further 15,000 involved in distance learning through the Open University. These include students from elsewhere in the UK, the rest of Europe and other countries. About seven and a half thousand students are currently studying to be teachers. Teacher education in Scotland is the responsibility of the devolved administration, which controls the numbers of students in teacher training. Provision follows a broadly similar pattern to that in the rest of the UK with accountability in Scotland to the Scottish Funding Council (SFC) for academic standards and to the General Teaching Council Scotland (GTCS) for required professional registration of all qualified teachers working in Local Authority schools. These three stakeholders (SEED, GTC and SFC) work in close collaboration with each other and with the providers and other stakeholders in initial education, induction and in-service teacher education. (Further details of the controls over Scottish teacher education are appended)

Although the first teacher training college was built in 1837 by the Glasgow Education Society, which was a lay body, it was not until 1905 that the Scottish Education Department rationalised the situation that had developed progressively during the remainder of the 19th century. The principle that then applied for the next 60 years was that all teachers in primary and secondary schools should be certificated by a teacher training establishment that had provided the training.

From the early 1920s onwards a National Committee ensured a uniform system of training throughout the country. By the 1930s all non-graduate teachers received a training of at least three years and the proportion of graduates entering teaching with a one-year professional qualification was very high.

In the 1950s and 1960s difficulties arose over the supply of teachers for the greatly increased pupil numbers at the time. In 1965 concern about the standards of the profession brought about the establishment of the General Teaching Council Scotland (GTCS) by the Teaching Council (Scotland) Act of that year and a gradual move towards a graduate qualification for all teachers, with the introduction of the Bachelor of Education (BEd) degree offered by the colleges of education, as the training institutions had come to be called. It was not, however, until the 1980s that courses leading to school teaching were finally given degree status.

The most recent structural development, following the Further and Higher Education (Scotland) Act 1992, has been the merger of the colleges of education with universities, most of which were already validating the college courses.
**Current framework for initial teacher education in Scotland**

The 1990s was a therefore a decade of change for Scottish teacher education. The situation now is that there are seven departments of education in Scottish universities⁴ offering initial teacher education and various kinds of in-service education to meet the Continuing Professional Development (CPD) needs of teachers. At the same time, initial teacher education in Scotland was already undergoing major changes with definitions of levels of competences expected of a newly qualified teacher, i.e. as the first stage in a teacher’s professional development (SOED 1992). These competences were refined, updated and included in the *Guidelines for Initial Teacher Education Courses in Scotland* (SOEID 1998). They provided a systematic check-list of what was already expected of student teachers by the end of their initial training programme.

**Routes to qualified teacher status**

There are three basic routes in Scotland to becoming a qualified teacher:

- a four year course leading to a Bachelor of Education (BEd) degree at one of seven teacher education institutions to become a primary teacher or a secondary teacher of technology, physical education or music
- a one-year university course for a Professional Graduate Diploma in Education (PGDE) leading either to a Teaching Qualification (Primary) or a Teaching Qualification (Secondary) for those who already hold a university degree and wish to teach in either a primary or a secondary school.
- it is possible in some higher education institutions (e.g. University of Stirling) to take a combined degree which includes concurrent subject study, study of education and school experience to become a secondary teacher in certain subjects.

Although there is no legal requirement for them to do so, teachers in colleges may undertake training leading to a Teaching Qualification (Further Education). No national training is offered for teachers in higher education; training is a matter for individual institutions.

**Programmes of initial teacher education**

The *Guidelines* referred to above set out general and specific conditions for all courses that involve the training of school teachers. They deal with safeguards for academic standards, acceptability to the General Teaching Council for Scotland, the professional orientation of the course, the importance of experience in schools, the need for joint planning of such experience with school staff and the time to be spent on school experience in each type of course. They describe the general competencies prerequisite for entry to the teaching profession: subject knowledge; competence in communication, classroom methodology, classroom management and in assessment; knowledge about schools; and professional awareness. Also included is a list of desirable attitudes in a teacher which the course should encourage.

The *Guidelines* encourage teacher education institutions to ensure that their courses use practical experience in schools as a context for consideration of the theoretical aspects of education. They are expected to design courses that develop the specified competencies, encourage students to study independently and enable them to reflect on their classroom work. This implies an active role for the student in learning and variety in teaching approaches.

**Standard for Initial Teacher Education**

The Standard for Initial Teacher Education (ITE) in Scotland is a document prepared within the framework of the national procedures for quality assurance in ITE in Scotland. The document offers those who have a direct or indirect interest in ITE an opportunity to identify those key issues which ought to inspire and influence programmes in this area. It suggests benchmark information designed to encourage and enhance development and change (and as the document states ‘not to inhibit it’) An example is in Appendix 1. The framework for the benchmark information indicates the main aspects to be considered in developing ITE programmes, “namely, professional skills and abilities; professional knowledge and understanding; and professional values and personal commitment. Transferable skills have also been identified”. Attention has been paid to the national requirements for ITE and the document incorporates the competences in the *Guidelines for Initial Teacher Education Courses in Scotland* (SOEID 1998). It is intended that this benchmark document will provide the basis for planning the future professional development of teachers and it should be revised as and when appropriate.

Scotland now has reciprocal recognition of professional qualification with other EEA countries⁵. Until this came into force the GTCS dealt on a case-by-case basis with applications to teach in Scotland from teachers who had qualified elsewhere, including other areas of the UK.
The General Teaching Council for Scotland (GTCS)
The General Teaching Council was set up under the Teaching Council (Scotland) Act 1965. All qualified teachers employed in publicly funded, local authority schools are required to register with the GTCS. Other qualified teachers employed in Independent schools, higher education and in further education are encouraged, but not required, to register. Newly qualified teachers are provisionally registered until they complete their probationary period. Scottish educationalists are proud that the GTCS was the first such body for teachers in the United Kingdom and in the world.

The principal aims of the Council are to:
- contribute to improving the quality of teaching and learning
- maintain and enhance professional standards in schools and colleges in collaboration with partners including teachers, employing authorities, teacher education institutions, parents and the Scottish Executive Department;
- be recognised as a voice and advocate for the teaching profession;
- contribute to the development of a world-class educational system in Scotland.

In September 2000, a similar body, the General Teaching Council for England (GTC), was launched as the independent professional body for teaching in England.

Partnerships
In 1992-3 the Scottish Executive funded a feasibility study at the Moray House Institute of Education of a more school-based initial teacher education (ITE) that gave teachers in schools a major role in mentoring and assessing student teachers on placement (Powney et al 1993). This was the first Scottish venture to this approach although there were already established school based programmes in England, the most notable at that time being at the University of Oxford (McIntyre et al 1993). Schools already had some input into ITE especially in relation to students’ assessment on placement but the pilot extended the length of school experience and gave much more responsibility to schools.

From the students’ point of view the experiment was a great success. School staff were enthusiastic but mentors wanted better preparation and training as well as sufficient time free of other teaching responsibilities to fulfil their new roles. Major longer term issues included maintaining consistency and safeguarding quality across different school-college partnerships and the deployment of resources as funding for teacher education then went to the institutions and not the schools or individual teachers. (In contrast schools in Oxford were remunerated). Another major factor was that partnerships had to be three way: the higher education institution, the school and also the local authority that funded the school. What emerged was the important implication of such partnerships for cultural changes in the schools and for the career development of individual teachers.

Scottish Teachers for a New Era
Progress has been made since that pilot scheme and one of the most complex is the Scottish Teachers for a New Era model6. The emphasis in this new model of initial teacher education is for agencies and stakeholders to work in collaboration. It involves teacher educators, student-teachers, teachers in schools, pupils, parents, professionals from local authorities and national agencies.

This ambitious scheme, at an early stage of development and just for the primary teaching sector, is exploring an extended and more robust period of induction for graduate teachers that will continue in lifelong learning throughout these teachers’ careers. Thus, if successful, the initial training programme would be followed by induction and then by CPD support making up a six-year continuous package.

Induction
The Teacher Induction Scheme
New graduates wanting to teach in schools are not fully qualified until they have successfully completed a period of probation. In the 1990s, problems arose through the lack of full time posts available to these new teachers which prevented them from gaining fully qualified teacher status and registration with the GTCS. In a few instances, new teachers spent the whole of their first year on part-time contracts or even in supply teaching to cover teacher absences in different schools. This was not a desirable entry into the profession. Now, closer watch is being kept on the numbers entering initial training courses and matched against predicted numbers of teachers leaving the profession and the numbers of pupils for the foreseeable future.

Additionally, since 2002, probationary teachers from Scottish universities are guaranteed a one year school training placement. For this year they have a maximum 0.7 teaching with the remaining 0.3 of their time
available for professional development. While this scheme is not compulsory, it allows probationer teachers to be considered for full registration within one school year (190 teaching days), rather than an alternative route which normally requires at least 270 teaching days.

Continuous Professional Development (CPD)

**Continuity in CPD**

In-service education in the past tended to be either personal study for a higher qualification or an isolated in-service course usually taken by an individual teacher working in isolation. This model has not always been effective especially in changing school-wide policies and practices. ‘Cascading’ the benefits of new learning to other members of staff, did not always take place especially when it was a relatively junior teacher leading the initiative. To increase the likelihood of more staff being able to affect their school, some initiatives – such as that by Scotland against Drugs (Lowden and Powney 2001) made it conditional for participation that a teacher and the headteacher or deputy together should attend fully funded training. School improvement, school development planning and the general move to self-evaluating schools, have engaged more teachers to work in collaboration in order to embed change throughout the school.

Scotland now has a more comprehensive, consistent and flexible approach to professional development covering most subjects and many aspects of school life. It is codified in the document *A Teaching Profession for the 21st Century: Agreement reached following recommendations made in the McCrone Report* (2001). All the major stakeholders – Scottish Executive, GTC, local authority employers, teacher education organisations and teachers’ unions – were involved in hammering out a comprehensive framework for a teaching structure. This career structure links supports teachers’ learning from Initial Teacher Education right through various kinds of CPD to headship, to enhance their professional competence and maximise their potential. Teachers are entitled to a contractual minimum of 35 hours of personal CPD each year, agreed with their line manager in a formal process of professional review and development. This provision of CPD time is additional to the five days each year that teachers spend in school without pupils, time usually devoted to school CPD activities.

In a comparison of teacher education provision in European countries, Eurydice highlights Scotland as one of two models in which the aims of teacher education are:

*welded into a single consistent strategy for skills development. From this standpoint, their development has a direct or indirect bearing on current concepts of in-service training.*

The other European country mentioned in the Eurydice report is Romania, where in 2001, the Ministry of Education and Research established general aims regarding initial education and in-service training, which are intended as a basis for reform.

**Individual CPD**

Opportunities for individual qualified teachers to enhance their professional qualifications as part of their CPD plan are offered by the GTCS including:

- Chartered Teacher - a qualification-based Chartered Teacher grade aimed at experienced teachers (There have been few takers for this scheme

Although gaining the qualification allows staff to be on an annual salary of up to £38,000 while remaining within the classroom. Criticisms from teachers are that the qualification is too academic and unlikely to make them better teachers.

- The Standard for Headship - a framework for a training programme for headship aimed at aspiring headteachers.

There are also advanced courses offered at universities to master and doctoral level and many of them include school based research.

**CPD in partnership**

There are partnership opportunities with teachers working in collaboration with higher education staff and colleagues in other schools. An important example is the project run jointly at the Universities of Stirling (Scotland) and Manchester Metropolitan (England). This project, *Enhanced Competence-Based Learning in Early Professional Development* aims to improve the learning of new teachers and other new professionals by developing, evaluating and disseminating a research-based, practical model of early professional learning (EPL). Six teacher-researchers and an extended team of professionals working with the higher education staff will demonstrate that the research-based model of EPL can be embedded in practice in such a way as to enhance professional learning, performance and mentoring. In this way a range of professionals is contributing to policy on early professional development at the same time as improving their own knowledge and skills.
Issues
There are many unresolved issues related to teacher education. This paper outlines five of them:

- ensuring there is a sufficient supply of appropriately qualified teachers,
- widening access to teacher education,
- problems associated with gender imbalances in education,
- difficulties emerging in partnership arrangements especially in initial teacher education;
- and the need for initial teacher education to keep pace with policy changes in schools.

Ensuring sufficient supply of teachers
It has not proved possible to leave recruitment to initial training courses to normal competitive market forces. This would result in overwhelming numbers of applicants in popular areas and severe under-recruitment in others. Consequently the Scottish Executive has set targets for initial training entrants to primary and secondary ITE including the specific subject areas. The Scottish Funding Council mediates the funding to higher education institutions consistent with these targets. Thus a provider is only funded up to a specified number, for example in English or History in the secondary sector. However there are difficulties in recruiting to some subjects such as Physics and Modern Languages. The situation is compounded by few secondary school students following these subjects at school and into university thus perpetuating the cycle of low take-up of subjects deemed necessary for a rounded education.

Widening access
Throughout the UK, policy makers and providers have been attempting to broaden the participation rate in higher education among the more disadvantaged members of the communities. This has proved difficult. On the plus side, there has been an increase in the proportion of people entering higher education from the more socio-economically deprived areas of Scotland since 1996-97. Nevertheless in 2003-04, people from the least deprived areas were still about twice as likely to be participating in higher education as people from the most deprived areas. Teachers working in deprived areas are likely to come from outside the district and consequently are unlikely to be familiar with the local sub-culture or to be examples to their pupils of the benefits of progressing to higher education from a disadvantaged starting point. The minority ethnic population in Scotland is small (just over 6%) but they are under-represented in the teaching profession and this is an issue that needs to be addressed.

Gender imbalance
Teaching is a gendered profession. The gender imbalance in teaching, is a longstanding feature of primary teaching, and is also becoming apparent in most secondary subjects as well (in Scotland).

Scottish Executive (2006)

School teachers
The gender balance of teachers in the Scottish primary sector had been constant at 93% female and 7% male since 1998 but there was a rise to 11% in the proportion of male probationer primary teachers starting teaching in 2006. The percentage of men in primary teaching is higher in England though with a decline to 14% noted by Garner (2002).

In the Scottish secondary sector the percentage of female teachers has risen steadily over the last decade from 51 per cent in 1996 to 59 per cent in 2005 and 61 per cent of probationers in 2006. In England (2003 DfES) 46% of secondary teachers were male but only 32% of special school teachers were male.

Scotland is not exceptional in this gender imbalance. One explanation is offered by Zufiaurre:

Education as a profession has become increasingly dependent on women, once global society is providing new spaces where women can combine professional and domestic tasks while becoming more active consumers

Zufiaurre (2006)

As an example, Robinson et al (1992) in a telephone survey of over 500 qualified ex-teachers found that half the women but none of the men left teaching because of childcare or other domestic commitments. Another important factor is that in seeking promotion men may not see teaching as a sufficiently rewarding profession; they put more emphasis on salary compared with women who are more attracted to the social aspects of the job (Spear et al 2001).

Teachers in training
Gendering applies to subject areas: males outnumber females in teacher training only in physics and there are no males currently taking home economics. About the same number of men and women take mathematics – a disproportionate balance given the overall gender imbalance.

Current figures show that female student teachers at university outnumber males. Table 1 below shows there has been a significant increase in the numbers of teachers being trained since 1999-2000, with a slight increase in the proportion of females.¹⁰

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<td>23.0%</td>
<td>21.8%</td>
<td>21.9%</td>
</tr>
</tbody>
</table>

Table 2 indicates that in the secondary sector, the absolute increase in numbers has been accompanied by an increase in the proportion of females and a corresponding decrease in the proportion of males.

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</thead>
<tbody>
<tr>
<td>All</td>
<td>5,735</td>
<td>6,645</td>
<td>7,590</td>
</tr>
<tr>
<td>Female</td>
<td>57.0%</td>
<td>61.8%</td>
<td>62.3%</td>
</tr>
<tr>
<td>Male</td>
<td>43.0%</td>
<td>38.2%</td>
<td>37.7%</td>
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</tbody>
</table>

Table 3 shows that in the primary sector, the proportion of males remains low at about 1 in 10 but nevertheless there has been a small but perceptible increase.

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</thead>
<tbody>
<tr>
<td>All</td>
<td>3,350</td>
<td>3,890</td>
<td>4335</td>
</tr>
<tr>
<td>Female</td>
<td>91.2%</td>
<td>90.7%</td>
<td>89.6%</td>
</tr>
<tr>
<td>Male</td>
<td>8.8%</td>
<td>9.3%</td>
<td>10.4%</td>
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</tbody>
</table>

Looking to the future, it is clear that teaching will remain a gendered profession in Scotland given the imbalance of males/females in training.

**Structural issues for partnerships**

Without doubt there has been an increase in partnership working in different combinations of teacher education departments, schools, local authorities, individual lecturers, teachers and teacher researchers, parents and other stakeholders. This is laudable in principle but can be expensive in time for each of the partners and each has its own priorities. Moreover, different organisations operate different structures. For example, school and college terms/semesters may not coincide; CPD partnerships may involve crossing local authority boundaries each with its own administration and priorities. Scotland has a substantial and dispersed rural population with many small schools with only one or two teachers. Designing CPD that is accessible and supportable is difficult although ICT developments have made this somewhat easier where the equipment is available and appropriate professional networks established. Teachers may access local authority, Scottish and UK wide websites offering advice and CPD opportunities.
Responding to changes in school

Pupils excluded from school

The number of pupils excluded from local authority schools in Scotland has increased by 18% in the last four years (Scottish Executive 2007). Thirteen per cent of these are from primary schools – equivalent to 15 per 1000 primary pupils. Exclusions usually comprise being sent home for the day or a few days, but in a minority of cases (1%) pupils are permanently excluded from a particular school. About a quarter of the pupils are excluded for violent behaviour such as physical assault on teachers or fellow pupils, or fighting. (The figures include repeat offenders.) Other reasons include persistent disobedience and verbal abuse. This increase in exclusions challenges teachers and teacher educators to find appropriate ways of dealing with these problems largely raised by adolescent boys (78% of exclusions), young people from disadvantaged backgrounds and in the upper primary and early secondary years. Some schools in disadvantaged areas do not have high rates of exclusion. This suggests that attending to the school culture and training for head teachers and staff can avoid this sad loss of pupils’ education.

Policy and curriculum changes

In a joint keynote presentation at the annual ISTE seminar in 1983, Jacki Proctor and I foresaw scenarios of increased centralisation affecting all aspects of education. This has occurred not only in the UK but also in other European countries e.g. Denmark, The Netherlands. England has a National Curriculum defining what subjects should be taught in schools and for how long. In Scotland, this is presented as ‘Guidelines…’ but schools rarely waiver from these. Teachers in Scotland have been inundated with initiatives from SEED many of them connected with personal and social education (PSE) and citizenship and accountability. Teacher educators need to keep pace with these changes and make appropriate adjustments in their work. Individual institutions have lost much of their autonomy and are constrained by national requirements but as the Eurydice report (2006) points out, there remains considerable flexibility about how they enable students to gain their qualifications, especially in relation to post-graduate studies.

In Conclusion

Scotland is responding energetically to the needs of the 21st century for its teachers’ education. Provision is flexible enough to cope with different levels of entry and part-time/full time study. Quality assurance mechanisms are in place to ensure provision is satisfactory. There is a coherent strategy in place for teachers’ professional development and increasing propensity to recognise that progress can only happen by involving all the stakeholders in development and in appropriate partnerships. Every generation of pupils brings new challenges so there is no room for complacency and Scottish teacher education has to continue to experiment and evaluate its provision.

Notes

1. Note that the Executive Department itself has gone through various re-organisations and consequent name changes (e.g. SED, SOED, SOEID and currently SEED) but under each identity has had the responsibility of teacher education.
2. Scottish Funding Council http://www.sfc.ac.uk/
3. General Teaching Council Scotland: www.gtcs.org.uk
4. Universities of Aberdeen, Dundee, Edinburgh, Glasgow, Paisley, Stirling and Strathclyde
6. Funded by the Scottish Executive Education Department, the Hunter Foundation and the University of Aberdeen.
7. See project details at: http://www.ioe.stir.ac.uk/EPL/index.htm
9. Source Higher Education Statistics Agency (HESA)

References

General Teaching Council Scotland Annual Statistics Digest April 2005 Edinburgh 2006

APPENDIX
Decision-making Bodies in Initial Teacher Education in Scotland
Scottish Ministers, through Scottish Executive Education Department (SEED), control the training of teachers in Scotland in a number of ways. The approval of Scottish Ministers is required for courses of training for teachers in schools. Guidelines are published by SEED which specify conditions under which that approval is given. Minimum entry requirements to teacher training are nationally prescribed and published annually in the Memorandum on Entry Requirements to Courses of Teacher Education in Scotland, which has the force of regulation. The equivalent measures for lecturers in colleges are effected through the Scottish Executive Enterprise, Transport and Lifelong Learning Department (SEETLLD). Annually, SEED undertakes a teacher workforce planning exercise which results in guidance to the Scottish Funding Council (SFC) on the minimum requirements for newly qualified teachers. The SFC is responsible for setting intakes to the different types of teacher training courses and for ensuring, through its funding allocations and in other ways, that these minimum requirements are not exceeded.
Scottish Ministers receive advice on teacher education from the General Teaching Council for Scotland (GTCS), a statutory body of which the majority of members are elected by the teaching profession. The GTCS maintains a register of teachers in Scotland who are permitted to teach in publicly funded schools and no teacher may teach in such a school without registration. (The GTCS also registers teachers in further education, but registration is not a prerequisite of teaching in a college.) Teachers who have achieved the Teaching Qualification (TQ) are provisionally registered with the General Teaching Council for Scotland (GTCS). Full registration then follows a period of probation and assessment.

Janet Powney is now an independent consultant in educational research and evaluation. Her previous lives include primary school teacher, Principal lecturer and Head of Department in higher education and Senior Programme Manager at the Scottish Council for Research in Education. Much of her work has focused on quality assurance in higher education, equality and social justice, and research and evaluation methods in education. Dr Powney has been the Secretary-General of ISTE 2002-2007.
Correspondence: 19 Eglinton Crescent, Edinburgh. EH12 5BY <janet.powney@virgin.net>
Responsibility for education in Scotland follows a broadly similar pattern to that in the rest of the UK - England, Northern Ireland and Wales. Nevertheless each of these four autonomous educational systems in the UK has its own characteristics and it is not possible to refer in more than very general terms to education in the UK. For example, ‘The National Curriculum’ is only pertinent to England and is not a UK wide curriculum. Each of the other regions, including Scotland has its own interpretation and policy towards ‘curriculum’.

Accountability for teacher education in Scotland is to the Scottish Funding Council (SFC) for academic standards and to the General Teaching Council Scotland (GTCS) for required professional registration of all qualified teachers working in Local Authority schools. These three stakeholders (SEED, GTC and SFC) work in close collaboration with each other and with the providers and other stakeholders in initial education, induction and in-service teacher education.

For a clear and quick overview of the Scottish school system see the BBC website http://www.bbc.co.uk/dna/actionnetwork/A1181800#1

For information on Scottish initial teacher education see The Graduate Teacher Training Registry http://www.gttr.ac.uk/teach/scotland or http://www.teachinginscotland.com or the GTCS website for information on probation and induction http://www.gtcs.org.uk/Probation

For professional development opportunities for teachers in Scotland, see http://www.gtcs.org.uk/ProfessionalDevelopment/

Some educational abbreviations used in Scotland (and some from the rest of the UK)

ABPSTAS Association of Blind and Partially Sighted Teachers and Students
ADES Association of Directors of Education in Scotland
AifL Assessment is for Learning – Scottish on-line support for teachers and others in assessment of, and for, children’s learning. It is formative, involves peer contributions and case studies.
AMBITIOUS, EXCELLENT SCHOOLS The Scottish Executive’s current agenda for educational modernisation http://www.scotland.gov.uk/Publications/2004/11/20176/45852
ASC Association of Scottish Colleges http://www.ascol.org.uk/
AST Advanced Skills Teachers (England) remain teaching but spend the equivalent of one day a week supporting other teachers’ professional skills.
ATL Association of Teachers and Lecturers (ATL) Professional organisation and trade union for teachers and lecturers in England, Wales and Northern Ireland http://www.askatl.org.uk/
BERA British Educational Research Association http://www.bera.ac.uk/
CA Classroom Assistant (Scotland)
CEHR Commission for Equality and Human Rights will from October 2007 have responsibility for equalities and human rights subsuming and extending the responsibilities of the CRE, EOC and DRC http://www.cehr.org.uk/
COMMUNITY EDUCATION adult education and other lifelong learning projects undertaken within the community and often provided by the voluntary sector
CPD Continuing Professional Development
CRE Commission for Racial Equality http://www.cre.gov.uk/
CT Chartered Teacher (Scotland) award for experienced high quality teachers who opt to continue teaching rather than management.
CURRICULUM FOR EXCELLENCE partnership between the Scottish Executive Education Department, Learning and Teaching Scotland, Scottish Qualifications Authority and HM Inspectorate of Education to review the curriculum guidance for children aged 3-5 and 5-14 http://www.acurriculumforexcellencescotland.gov.uk/
DELLS Department for Education Lifelong Learning and Skills, Wales the UK government department for Education in Wales http://new.wales.gov.uk/about/departments/dells/?lang=en/
DENI Department for Education Northern Ireland is the UK government department for Education in Northern Ireland http://www.deni.gov.uk/
DFES The Department for Education and Skills is the UK government department for Education in England. http://www.dfes.gov.uk/

DRC Disability Rights Commission http://www.drc.org.uk/

DtS Determined to Succeed – Scottish schools enterprise initiative http://www.determinedtosucceed.co.uk/

Early years For information on education for very young children see http://www.ltscotland.org.uk/earlyyears/

EduBase up to date database of educational establishments across England and Wales. http://www.edubase.gov.uk/

EEA The European Educational Research Association www.eera.ac.uk

EIS Education Institute of Scotland www.eis.org.uk/ The biggest Scottish teaching union

EIS-FELA The self-governing Further Education Lecturers’ Association within the EIS with its own independent policy-making structure relating to teachers and academic staff in Further Education institutions in Scotland. http://www.eis.org.uk/html/member/fela/

EIS-ULA The self-governing association University Lecturers Association within the EIS with its own independent policy-making structure relating to teachers and academic staff in the universities and higher education institutions in Scotland. http://www.eis.org.uk/html/member/ula


ESRC Economic and Social Research Council is one of the major UK funding bodies for academic research including for education e.g. TLRP (qv) http://www.esrc.ac.uk

ETLLD Scottish Executive Enterprise, Transport and Lifelong Learning Department http://www.scotland.gov.uk/About/Departments/ETLLD

FE Further education. FE institutions provide tertiary education (q.v.) in vocational, adult learning and academic courses up to first degree level.


GTCNI General Teaching Council for Northern Ireland is the statutory, independent body for the teaching profession in Northern Ireland. http://www.gtcni.org.uk

GTCS General Teaching Council (Scotland) is the professional regulatory body for teachers in Scotland. All teachers in Scottish schools must register with the GTCS Information available on training, induction, probation and all accredited CPD available at: http://www.gtcs.org.uk/home

GTCW General Teaching Council for Wales is the independent self-regulating body for the teaching profession in Wales. http://www.gtcw.org.uk

GTRP Graduate Teachers Retraining Programme (England)

GTTR Graduate Teacher Training Registry (Scotland)

HAS Headteachers’ Association of Scotland http://www.has-scotland.co.uk/

HE Higher Education Academic study from first degree onwards

HEI Higher Education Institution

HLTA Higher Level Teaching Assistant (England)

HMIE Her Majesty’s Inspectorate of Education inspect all educational provision in all schools, further education and community education in Scotland and pre-schools in collaboration with the Care Commission. HMIE has no current role in inspecting initial teacher education (ITE) but offers ongoing professional advice to Scottish Ministers and Scottish Executive divisions on matters relating to ITE and continuing professional development (CPD) for teachers in post. http://www.hmie.gov.uk/

Home Reading Initiative Scottish initiative to encourage parents to read with their children http://www.readtogether.co.uk/

ICT Information and Communication Technologies including computers and other digital resources e.g. cameras, mobile phones

INSET Inservice Education for Teachers

ITE Initial Teacher Education

ITT Initial Teacher Training

LEA Local Education Authority

LGR Local Government Region

LSA Learning Support Assistant

LTS Learning and Teaching Scotland, the main organisation for the development and support of the Scottish curriculum. http://www.ltscotland.org.uk

NAHT National Association of Head Teachers http://www.naht.org.uk/

NASUWT National Association of Schoolmasters Union of Women Teachers http://www.nasuwt.org.uk

NATFHE – see UCU

NUT National Union of Teachers http://www.teachers.org.uk/
OFSTED inspect and regulate all education services in England including childcare and early education, schools, learning and skills providers and teacher education. http://www.ofsted.gov.uk/
Parent Zone information for parents, guardians, carers and others responsible for school age children. http://www.parentzonescotland.gov.uk/
PGCE Postgraduate Certificate in Education – teaching qualification for graduates
Preschool provision Part time educational provision for 3 and 4 year olds. 98% of children attend preschool in Scotland and follow 3-18 curriculum. All are entitled to two years of government funded pre-school education (offered in public, private or voluntary sector) – 5 half days per week. See http://www.ltscotland.org.uk/earlyyears/
Primary schools – Schools for children 5-12 years of age (Scotland), 5-11 years (England). Five is the age compulsory schooling starts.
PGDE Postgraduate Diploma in Education, degree or honours degree qualification http://www.gttr.ac.uk/teach/scotland
QAA Quality Assurance Agency (for higher education) http://www.qaa.ac.uk/
QTS Qualified Teacher Status (England)
SCITT School-centred initial teacher training (England) – see TDA
Scottish CILT The Scottish Centre for Information on Language Teaching and Research http://www.sclit.stir.ac.uk/
Secondary schools – educational provision after 7 years of primary education (Scotland) 6 years (England). The minimum leaving age is 16.
SCQF Scottish Credit and Qualifications Framework http://www.determinedtosucceed.co.uk/
SCRE Scottish Centre for Research in Education http://www.scre.ac.uk/
SEED Scottish Executive Education Department is the UK government department for Education in Scotland http://www.scotland.gov.uk/About/Departments/ED
SERA Scottish Educational Research Association http://www.sera.ac.uk/
SFC The Scottish Funding Council (SFC) distributes government funding each year for teaching and learning, research and other activities in Scotland's colleges and universities. http://www.sfc.ac.uk/
SFEU Scottish Further Education Unit http://www.sfeu.ac.uk/
SMT Senior Management Team
SSEN Scottish Schools Ethos Network 1995-2005
SSTA Scottish Secondary Teachers' Association http://www.ssta.org.uk/
SQA Scottish Qualifications Authority the national body in Scotland responsible for the development, accreditation, assessment and certification of qualifications other than degrees. http://www.sqa.org.uk/
TA Teaching Assistant (England)
Tertiary Education: education provided after school for those beyond compulsory school age of 16.
TES Times Educational Supplement Main weekly newspaper on education www.tes.co.uk/
TESS Times Educational Supplement Scottish supplement
TDA Training and Development Agency for Schools (England) www.tda.gov.uk/
TLTP Teaching and Learning Research Programme funded by ESRC http://www.tlrp.org/
TQ Teacher Qualification professional qualification required to teach in Scotland. See http://www.gttr.ac.uk/teach/scotland
TTA Teacher Training Agency, England - now TDA (see above)
UCU University and College Union formed by the amalgamation of the Association of University Teachers and NATFHE - The University & College Lecturers’ Unions. http://www.ucu.org.uk

Janet Powney April 2007
10. Acknowledgments and thanks

The seminar convenors gratefully acknowledge the support of the Institute of Education, University of Stirling, the Educational Institute of Scotland, the General Teaching Council for Scotland and ESCalate.

Within the Institute of Education, particular thanks are due to Professor Peter Cope, head of the Institute of Education when this seminar was first mooted, for his encouragement at that time and subsequently; and to Professor Richard Edwards, current head of the Institute who has continued to support it, including sponsorship for the closing ceilidh.; also to Angela Cowan and Fiona Caldwell who handled all the financial elements of the seminar; to Kirsteen Monteith, who maintained the ISTE 2007 website, and to Pam McGibbon who took on a number of secretarial tasks.

We would like to thank the Educational Institute of Scotland, the oldest teaching union in the world, and the largest in Scotland, for organising a very exciting event at the Hub in Edinburgh, and for providing lunch for all participants. Special thanks are due to Simon Macauley and Sheila Harris for their hard work in putting together the event and ensuring its smooth running.

The General Teaching Council for Scotland is the professional regulatory body for teachers in Scotland. Its goals include maintaining and enhancing professional standards of Scotland's teachers, supporting new teachers through the Standard for Full Registration, and working with partner organisations across the world. The General Teaching Council for Scotland, very generously sponsored production of the seminar programme and we are particularly grateful for the support of Matthew McIver, Chief Executive and Registrar.

We also acknowledge the support of ESCalate, the UK Higher Education Academy's subject centre for education, charged with producing and disseminating resources for staff and students in Higher Education and Further Education involved in Education Studies, Continuing Education and Lifelong Learning and Initial Teacher Education. ESCalate provided financial to support post-graduate student attendance at the seminar.

Lastly we would like to thank Lottie Gregory, the ISTE 2007 administrator, whose dedication and hard work in support of this project over two years has been invaluable.

Joanna McPake
Janet Powney
Christine Stephen
## 10. ISTE 2007 Timetable

<table>
<thead>
<tr>
<th>Time</th>
<th>Saturday 23 June</th>
<th>Sunday 24 June</th>
<th>Monday 25 June</th>
<th>Tuesday 26 June</th>
<th>Wednesday 27 June</th>
<th>Thursday 28 June</th>
<th>Friday 29 June</th>
<th>Saturday 30 June</th>
</tr>
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<tbody>
<tr>
<td>07.00</td>
<td>Breakfast</td>
<td>Breakfast</td>
<td>Registration</td>
<td>Visit to the Educational Institute of Scotland, Edinburgh</td>
<td>Breakfast LeOra Cordis Trust 08.00-09.00 Paper Session 3 09.00-11.00</td>
<td>Paper Session 5 09.00-11.00</td>
<td>Paper Session 7 09.00-11.00</td>
<td>Breakfast</td>
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<tr>
<td>08.00</td>
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<td>Registration &amp; Campus Tours</td>
<td>Keynote 2: Reeves 11.30-12.30 Lunch 12.30-14.00 (Haldane's)</td>
<td>Keynote 3: MacIver 11.30-12.30 Lunch 12.30-14.00 (Atrium)</td>
<td>Keynote 4: Schou 11.30-12.30 Lunch 12.30-14.00 (Haldane's)</td>
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<tr>
<td>09.00</td>
<td>Trossachs and Loch Lomond Tour</td>
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<td>Paper Session 1 09.30-10.30 Keynote 1: Early Professional Learning Project 11.00-13.00</td>
<td>JISTE Meeting 13.00-14.00</td>
<td>JISTE Meeting 13.00-14.00</td>
<td>JISTE Meeting 13.00-14.00</td>
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<tr>
<td>10.00</td>
<td>Registration &amp; Campus Tours</td>
<td>C2X4/6 10.00-18.00</td>
<td>Lunch 13.00-14.00 (Haldane's)</td>
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<tr>
<td>11.00</td>
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<td>Lunch 12.45-14.00 (The Hub)</td>
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<td>13.00</td>
<td>Lunch 13.00-14.00 (Haldane's)</td>
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<tr>
<td>14.00</td>
<td>Registration &amp; Campus Tours</td>
<td>Steering Group Meeting 16.00-17.30</td>
<td>Paper Session 2 14.00-17.30</td>
<td>Free time to tour Edinburgh</td>
<td>Paper Session 4 14.00-17.30</td>
<td>Paper Session 6 14.00-16.00</td>
<td>Paper Session 8 14.00-15.30</td>
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<td>15.00</td>
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<td>17.00</td>
<td>Official opening B4 Welcome Dinner 18.30-20.00 (Haldane's)</td>
<td>EPL Reception and Tour of University Art Collection 18.00-19.30</td>
<td>Dinner (Pathfoot) 19.30-21.00</td>
<td>Dinner (Haldane's) 18.00-19.30 JISTE Meeting 18.00-19.00</td>
<td>Dinner (Haldane's) 19.00-20.30</td>
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<td>19.00</td>
<td>Welcome Dinner 18.30-20.00 (Haldane's)</td>
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<td>EPL Reception and Tour of University Art Collection 18.00-19.30</td>
<td>Dinner (Haldane's) 18.00-19.30 JISTE Meeting 18.00-19.00</td>
<td>Dinner (Haldane's) 19.00-20.30</td>
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<tr>
<td>20.00</td>
<td>Scotland and the Scots B4 20.00-21.00</td>
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<td>EPL Reception and Tour of University Art Collection 18.00-19.30</td>
<td>Dinner (Haldane's) 18.00-19.30 JISTE Meeting 18.00-19.00</td>
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<td>2100</td>
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<td></td>
<td>Dinner (Pathfoot) 19.30-21.00</td>
<td>Return to Stirling</td>
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