

Reflective Practice

Challenges for Teacher Education



Secretariat provided by and report published by
THE CENTRE FOR CROSS BORDER STUDIES

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SCoTENS

The Standing Conference on Teacher Education, North and South

2009 CONFERENCE AND ANNUAL REPORTS

Secretariat provided by The Centre for Cross Border Studies

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ACKNOWLEDGMENTS

The Committee of the Standing Conference on Teacher Education North and South (SCoTENS) wishes to acknowledge with thanks the financial support of:

- The Department of Education and Science, Dublin,
- The Department for Employment and Learning, Belfast,
- The Department of Education, Bangor





Reflective Practice **Challenges for Teacher Education**

The Standing Conference on Teacher Education,
North and South (SCoTENS)

REFLECTIVE PRACTICE CHALLENGES FOR TEACHER EDUCATION

2009 CONFERENCE AND ANNUAL REPORTS

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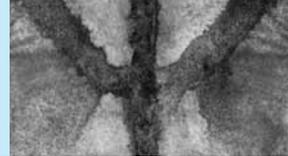
ISBN No. 978-1-906444-27-3

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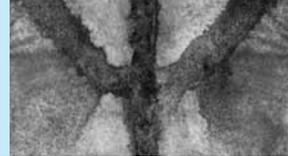
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Reflective Practice Challenges for Teacher Education

Chairpersons' Introduction

Welcome to the 2009 annual report of SCoTENS (the Standing Conference on Teacher Education, North and South). This report incorporates the proceedings of our seventh annual conference as well as a financial statement and reports on the other conferences, networks and research activities supported by SCoTENS. Together they provide evidence of the significant and impactful progress of our various activities during the year under review.

The annual SCoTENS conference provides a forum where teacher educators across the island of Ireland can engage in open, critical and constructive analysis of current issues in education with a view to promoting a collaborative response to these issues. In addition SCoTENS promotes and funds a range of research-based initiatives with a view to establishing sustainable north-south partnerships and projects.

The seventh annual conference in Malahide in October 2009 focused on the theme 'Reflective Practice: Challenges for Teacher Education'. The significance of the event and its subject matter was emphasized by Mr. Sean Haughey, Minister of State at the Irish Department of Education and Science, who identified reflective practice as a key prerequisite for teacher efficacy and schooling system effectiveness. Further ministerial endorsement of the work of SCoTENS and the theme of reflective practice was provided by Caitriona Ruaune, Minister of Education in N.Ireland, who at the evening session explored the crucial link between teacher professionalism and reflective practice as core ingredients for an effective schooling system underpinned by the twin goals of excellence and equity.

The Ministerial sentiments of Mr. Haughey and Ms. Ruaune found powerful reflection in the keynote contributions of Professor Andrew Pollard and Professor Jean Murray.

Professor Pollard provided an insightful and thought provoking exploration of the link between teacher professionalism and evidence informed reflective practice. Describing reflective practice as one of the most significant contemporary challenges facing teacher education, he made an impassioned plea for the strengthening of a shared professional language for talking about teaching; the development of communities of warranted practice, and a more confident public representation of the theories, practices and languages of teacher expertise – processes with reflective practice at their core.

Professor Pollard's challenges found an illuminating response in Professor Jean Murray's 'Developing Enquiry and Reflection in Teacher Education: Challenges and Solutions'. Quoting Friere that 'knowing demands a constant searching', Professor Murray suggested that against a backcloth of growths in performativity and audit cultures, a narrowing of learner outcomes and a shift towards workplace and experiential learning, it is now more important than ever before to ask: Where is reflection? Where is enquiry? Where is research? How did scholarship drop out of teacher education?

Delegates were also treated to a fascinating account of teacher education in Finland, one of the highest performing school systems in the world, and a schooling system where the questions posed by Jean Murray appear to have been fully addressed. This joint session on the second morning of the conference provided delegates with a vivid and memorable demonstration, from three contrasting but reinforcing perspectives - a head of faculty, a practicing teacher and a student teacher - of the centrality of the research based approach

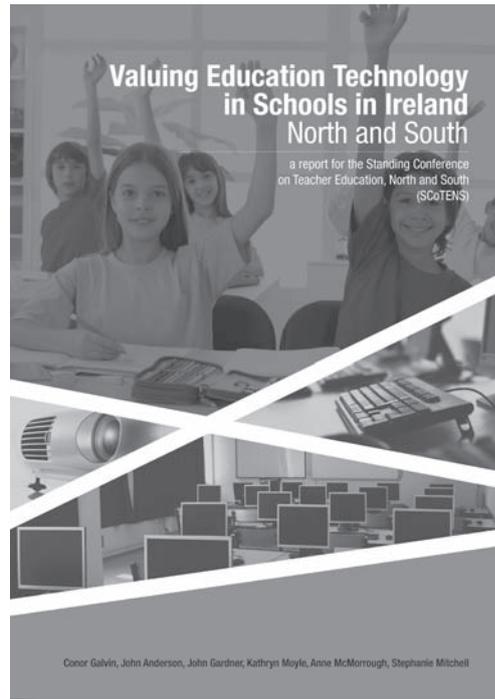


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to teacher development in Finland. From the beginning of their journey as teacher educators, teachers in Finland develop the skills of researching and producing new knowledge about teaching and learning. Throughout their careers, teachers in Finland research what they teach and teach what they research. The growing capacity of teachers North and South to engage in reflective practice was also the optimistic message of John Anderson and Conor Galvin's insightful and scholarly input on the uses of technology in the school setting.

Reflecting the nature and quality of the many projects being supported by SCoTENS, the conference provided an opportunity to launch a number of reports: *School Leadership Policy and Practice North and South* (2008 conference and annual reports); *Professional Development for Post Primary Special Educational Needs in Northern Ireland and the Republic of Ireland*, by Elizabeth O'Gorman, Sheelagh Drudy, Eileen Winter, Ron Smith and Mairin Barry; and *Becoming a Teacher: primary student teachers as learners and teachers of history, geography and science: an all-Ireland study* by Fionnuala Waldron, Susan Pike, Richard Greenwood, Cliona M Murphy, Geraldine O'Connor, Anne Dolan and Karen Kerr.



These latter projects are just two of the many research projects typified by scholarship, and cross-border collaboration completed during 2008-2009 with the assistance of SCoTENS funding. SCoTENS itself is funded by the Departments of Education, North and South, and the Department for Employment and Learning (NI), and through the subscriptions of our affiliated institutions. We are indebted to the generosity of these departments and organisations for their commitment to supporting the work of cross-border projects and research. Their continued support is essential for the maintenance of this educational forum.

As well as acknowledging the support of our sponsors, we would like to express our gratitude and appreciation to the staff of the Centre for Cross Border Studies who provide administrative support for SCoTENS, especially Patricia McAllister and Andy Pollak on whose organisational skills and absolute professionalism we rely. We would also like to thank the management and staff of the Grand Hotel, Malahide, who provided, not for the first time, a welcoming venue for our conference. Finally we thank our fellow members of the SCoTENS committee who give generously both of their expertise and time.

Teresa O'Doherty
Co-Chair

Tom Hesketh
Co-Chair



Reflective Practice Challenges for Teacher Education



Annual Conference The Grand Hotel, Malahide 15 – 16 October 2009



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DAY ONE

OPENING ADDRESS

Mr SEÁN HAUGHEY TD

Minister of State for Lifelong Learning

Ladies and gentlemen, it is a great honour for me, as Minister for Lifelong Learning, to be here in Malahide this morning, to officially open the seventh annual SCoTENS conference. I would particularly like to extend a warm welcome to Will Haire, Permanent Secretary, Department of Education, Northern Ireland. A special welcome also to our three visiting speakers from Finland, Professor Juhani Hytönen, Ms Leena Kaarina Winter and Ms Eeva-Kaarina Salmia.

This important conference will examine the challenges for teacher education of developing teachers as reflective practitioners. It is heartening to see such a large gathering of educationalists here today, and I am sure that the conference programme, which includes many distinguished speakers, will provide opportunities for professional dialogue over the next two days. This conference will also enable you to compare Finnish teacher education programmes with Irish programmes from a teacher educator, teacher and student perspective.

I am particularly impressed by the wealth and breadth of research papers published by SCoTENS since 2002. I warmly congratulate you on the publication of three further reports, which will be launched here later this evening by my colleague, Education Minister for Northern Ireland, Caitríona Ruane. These publications include a report on last year's conference, which took place in Belfast, on *School Leadership: Policy and Practice: North and South*. The report titled *Becoming a Teacher: Primary Student Teachers as Learners and Teachers of History, Geography and Science* is the result of collaboration between researchers in Stranmillis University College; St Mary's University College, Belfast; Mary Immaculate College, Limerick; and the four Colleges of Education in Dublin (St Patrick's, Froebel, Marino and Church of Ireland College). The third report on *Professional Development for Post-Primary Special Education Needs Teachers in Northern Ireland and the Republic of Ireland* is also the result of a collaborative initiative between researchers from University College Dublin and Queens University, Belfast.

While an awareness of the special skills required for critical thinking, reflection and problem-solving is not new, what is new is the extent to which changes in our economy and society mean that collective and individual success depends on having such skills. In his book, *The Reflective Practitioner*, Donald Schön, the American philosopher, pointed out that we learn not so much from our experience, but from our reflection on our experience. It is necessary for all of us, from time to time, to challenge our assumptions and to re-examine our values, as without this reflection, we can ultimately lose effectiveness in our work. Reflection enables us to think about how things are done, identify what impact it is having, and what needs to be improved.

Research has shown that effective teaching is linked to inquiry, reflection and continuous professional growth. By gaining a better understanding of their own individual teaching



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styles through reflective practice, teachers can improve their effectiveness. While many teachers think about their teaching and engage in informal reflection, it is sustained and systematic reflection that makes a real impact.

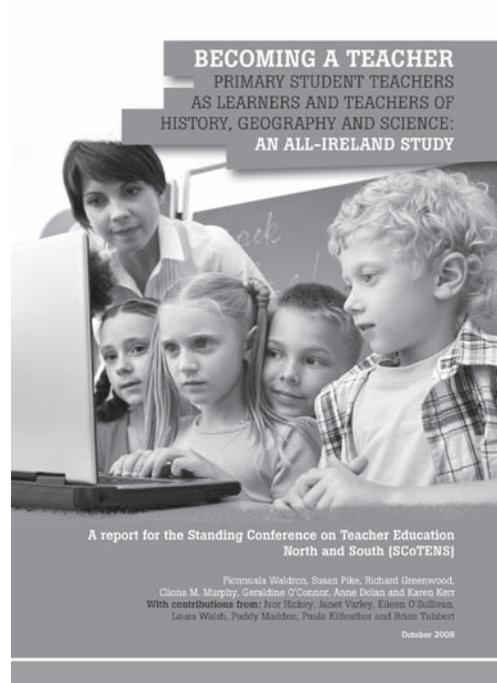
Reflection requires teachers to develop a risk-taking mentality, as it means moving out of one's comfort zone and this may be accompanied by uncertainty, anxiety and fear of failure. It is inevitably easier for teachers and systems to maintain the status quo and to do what one has always done rather than develop new strategies, or evaluate whether current strategies address teaching goals.

In its priorities for teacher education, the OECD report *Teachers Matter*, published in 2005, recommended a shift of emphasis in initial teacher education towards a reflective practitioner approach. This report states, and I quote: *'Initial teacher education must not only provide sound basic training in subject-matter knowledge, pedagogy related to subjects, and general pedagogical knowledge; it also needs to develop the skills for reflective practice and research on the job'*.

Reflective practice must be fostered continuously during initial teacher education. Strategies such as critical incidents, portfolios, action research projects, case studies and microteaching support the capacity of pre-service teachers to develop reflective and critical thinking skills.

Collaborative approaches rather than individualistic approaches to reflection offer even more benefits – for example, when teachers work together as 'critical friends'. Such reflective dialogue requires the development of effective communication and conflict resolution skills, and an openness to change and development. A challenge for all teacher educators is to ensure that much effort is expended on ensuring that a climate of trust is fostered as a basis for such collaboration, so that a context of reflection is built into every learning situation. I am very pleased to note that you will have an opportunity later to attend workshops facilitated by our Finnish colleagues from the University of Helsinki. Finland has been hailed as having one of the world's most successful education systems. We can learn much from Finland. As well as having highly qualified and academically educated teachers with Masters' degrees, there is a strong emphasis on the development of teachers' pedagogical thinking, self-evaluation skills, reflective practice, and on research-based teacher education.

A challenge for our teacher educators throughout this island is to help teachers design suitable research techniques that will enable them to reflect on their planned curriculum and strategies in the light of what actually occurs in the classroom. Developing and promoting classroom research provides an opportunity, not only for individual teacher development, but also with the potential for the development of collaborative partnerships. In practical terms, reflective practice plays an important role in closing the gap between theory and practice.



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It helps teachers to look at their own teaching methods in order to determine what works best for students.

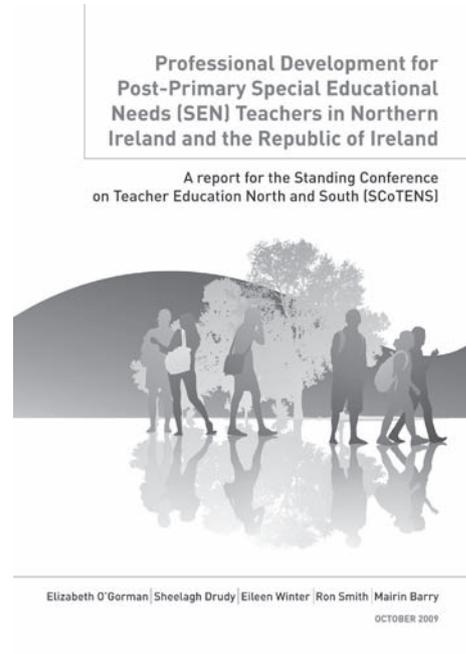
Encouraging schools to develop collaborative and mentoring teams at whole-school level, for example, would enable teachers to continuously examine their assumptions and practices. Documents such as Looking At Our School have encouraged schools to engage in the process of reflection and self-evaluation. In summary, reflective practice is a continuous process that enables teachers to look at their experience, make sense of it and to identify what to do in the future.

The work of the Teaching Council in reviewing existing teacher education programmes provides a real opportunity for teacher educators to address the need to link theory with practice and to develop teachers' pedagogical thinking and research-based skills. As teacher educators, you should be concerned, not just with what is, but also with what ought to be. Now, as always, it is the education of the teaching force, as reflective practitioners, which is key to this change.

Finally, ladies and gentlemen, I would like to commend the commitment of the staff of the Centre for Cross Border Studies, particularly Andy Pollak and Patricia McAllister, who provide invaluable professional and administrative support for the effective operation of SCoTENS. The organisation of conferences, participation in various projects and the publication of an impressive range of research papers, as part of the ongoing work of SCoTENS would not occur without the vision, determination and dedication of each member of the SCoTENS management committee and the leadership of the co-chairpersons, Dr Tom Hesketh, Director, Regional Training Unit, Belfast and Professor Teresa O'Doherty, Head of Education, Mary Immaculate College, Limerick. I thank you for your invaluable work and dedication. I hope you all have a most enjoyable and worthwhile conference and I wish you well with your deliberations over the next few days.

I now declare the seventh annual SCoTENS conference 'Reflective Practice, Challenges for Teacher Education' officially open.

Go raibh míle maith agaibh go léir.





TEACHER PROFESSIONALISM AND EVIDENCE-INFORMED REFLECTIVE PRACTICE: BUILDING WARRANTED PEDAGOGY

Professor Andrew Pollard

Director of the Teaching and Learning Research Programme at the Institute of Education, University of London

We have to start from where we are. In relation to public understanding of teachers' work, this poses a problem because, despite what research now tells us about effective teaching and learning, the most common perception is that teaching simply involves maintaining discipline and imparting knowledge. This 'transmission model', in which the teacher teaches and the pupil learns, can often be found underlying press reports – and it lurks in many other places too.

On behalf of the children and young people in our schools and colleges, we have to do better. But if we are to try, how do we build trust and confidence in those efforts? How can parents, school governors, employers and policy makers be assured that our professional knowledge, skills, understanding and judgements are well founded and should be supported?

To achieve this requires new forms of 'warranted pedagogy' – approaches to teaching and learning that can be fully justified to others.

The idea of warranted pedagogy may seem a little strange at first, but it has an important role to play in enhancing the public esteem of teachers. If the profession is to be trusted – with less central direction by government agencies and more local decision-making – then it has to be able to demonstrate the nature of its professionalism.

In this commentary it is suggested that three elements of justification are required:

1. a valid educational rationale based on evidence-informed principles
2. effective implementation and commitment to continuing improvement
3. clear explanations of the pedagogic strategies in use.

Warranted pedagogy – can our approach to teaching and learning be fully justified to others?

A valid educational rationale

The Teaching and Learning Research Programme (TLRP) distilled findings from its 22 school-based research projects, trawled international research and consulted widely with practitioners to produce its 'Ten Principles of Effective Teaching and Learning' (James and Pollard, 2006). These principles, which appear on the next page, are an attempt to provide a holistic picture of factors that enhance learning.

The principles are intended to inform professional judgement rather than dictate any particular course of action. Whilst the statements may seem straightforward, they do have a cutting edge. The test is to use them to challenge actual practice or policy. When that is done, there is often a gap between what is aspired for and what it is possible to achieve. This gives pause for thought, and can lead to new insights and development.



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The present commentary builds on these principles but focuses on the conceptual understanding through which they are explored and enacted by expert teachers.

Of course, such representations are not new. For example, the American Psychological Association offered an evidence-informed account of 'learner-centred psychological principles' in 1990 - and these can still be viewed at: www.apa.org/ed/governance/bea/learner-centered.pdf. From New Zealand, John Hattie's meta-analysis of 800 studies of effective methods of teaching (see Hattie 2009) is another landmark publication drawing on research evidence – and its Teaching and Learning Research Initiative (see www.tlri.org.nz) is an explicit attempt to build knowledge about effective teaching by combining research and practitioner expertise. Over the past decade, TLRP has been part of such discussions in many parts of the world (see www.tlrp.org/international).

Ten principles of effective teaching and learning

1. Effective pedagogy equips learners for life in its broadest sense. Learning should aim to help individuals and groups to develop the intellectual, personal and social resources that will enable them to participate as active citizens, contribute to economic development and flourish as individuals in a diverse and changing society. This means adopting a broad conception of worthwhile learning outcomes and taking seriously issues of equity and social justice for all.

2. Effective pedagogy engages with valued forms of knowledge. Pedagogy should engage learners with the big ideas, key skills and processes, modes of discourse, ways of thinking and practising, attitudes and relationships, which are the most valued learning processes and outcomes in particular contexts. They need to understand what constitutes quality, standards and expertise in different settings.

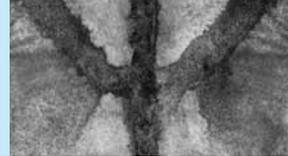
3. Effective pedagogy recognises the importance of prior experience and learning. Pedagogy should take account of what the learners know already in order for them, and those who support their learning, to plan their next steps. This includes building on prior learning but also taking account of the personal and cultural experiences of different groups of learners.

4. Effective pedagogy requires learning to be scaffolded. Teachers, trainers and all those, including peers, who support the learning of others, should provide activities, cultures and structures of intellectual, social and emotional support to help learners to move forward in their learning. When these supports are removed the learning needs to be secure.

5. Effective pedagogy needs assessment to be congruent with learning. Assessment should be designed and implemented with the goal of achieving maximum validity both in terms of learning outcomes and learning processes. It should help to advance learning as well as determine whether learning has occurred.

6. Effective pedagogy promotes the active engagement of the learner. A chief goal of learning should be the promotion of learners' independence and autonomy. This involves acquiring a repertoire of learning strategies and practices, developing positive learning dispositions, and having the will and confidence to become agents in their own learning.





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Speakers at the 2009 SCoTENS Conference – ‘Reflective Practice: Challenges for Teacher Education’. From left to right: Dr Tom Hesketh, Minister of State for Lifelong Learning, Sean Haughey TD, Professor Andrew Pollard and Professor Teresa O’Doherty.

7. Effective pedagogy fosters both individual and social processes and outcomes.

Learners should be encouraged and helped to build relationships and communication with others for learning purposes, in order to assist the mutual construction of knowledge and enhance the achievements of individuals and groups. Consulting learners about their learning and giving them a voice is both an expectation and a right.

8. Effective pedagogy recognises the significance of informal learning. Informal learning, such as learning out of school or away from the workplace, should be recognised as at least as significant as formal learning and should therefore be valued and appropriately utilised in formal processes.

9. Effective pedagogy depends on the learning of all those who support the learning of others. The need for lecturers, teachers, trainers and co-workers to learn continuously in order to develop their knowledge and skill, and adapt and develop their roles, especially through practice-based inquiry, should be recognised and supported.

10. Effective pedagogy demands consistent policy frameworks with support for learning as their primary focus. Organisational and system level policies need to recognise the fundamental importance of continual learning - for individual, team, organisational and system success - and be designed to create effective learning environments for all learners.

Implementation and continuing improvement

As inspection reports attest, the overall quality of teaching in UK schools is of a high standard. And we know too the strength of teachers’ professional commitment, despite often challenging circumstances.

The essence of such professionalism can be seen as the exercise of skills, knowledge and judgement for the public good. However, the question quickly arises about how such commitment and expertise is to be developed, maintained and renewed. This is where reflective practice comes in.

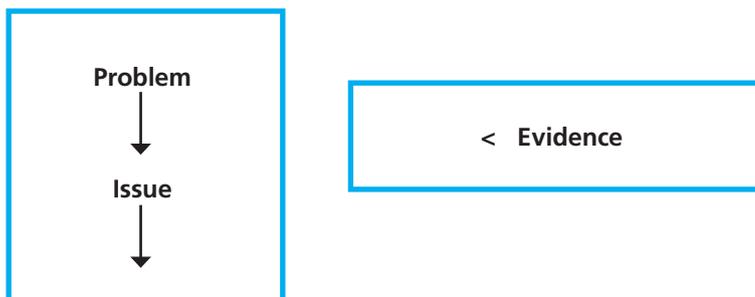
The notion of reflective thinking goes back to Dewey who, in the 1930s, contrasted it with routinised thinking. Since then, the idea has been developed by many others, particularly in



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relation to professionalism (Schon, 1983). For school education, the proposition has been expressed as illustrated below (Pollard, 2008).



So, a teacher experiences a routine classroom problem – perhaps students appear unsettled, and they don't seem able to grasp a particular point. When analysed, there are invariably deeper issues underlying such problems. Maybe the curriculum is uninteresting, an explanation has been rushed or the teacher is a bit uncertain about some aspect of subject knowledge. Such possibilities must be evaluated, sometimes almost instantaneously, and potential courses of action then present themselves. What to do? These are the dilemmas which every teacher faces in classroom action. A decision must be taken. To resolve such dilemmas on the spot, one has to exercise judgement.

The value of reflective activity is that it can improve the quality of such judgements. Occasionally, when it seems valuable to do so, teachers can investigate commonly recurring issues in a systematic and open-minded way. Perhaps other colleagues join in a collaborative enquiry. Such enquiries are sometimes called 'action research' or 'lesson study' and are tried and tested ways of improving pedagogic awareness. In all cases, evidence is introduced and used to stimulate reflective analysis of the issues. This evidence could come from many sources – from reading published research, from comparing experiences with colleagues, from external measures of pupil performance, from empirical enquiry in one's own classroom. The important thing though, is to use such evidence to improve the quality of professional judgement. This assures the effective implementation of educational principles and the provision of continuing professional development.

Of course, there are also many other forms of continuing professional development which can help teachers to implement principles in the classroom. The General Teaching Council for England (GTCE)-led Teacher Learning Academy is a prime example of an enabling network. The English TLA's new Masters in Teaching and Learning is intended to support pedagogic development through coaching. General Teaching Council for Wales (GTCW) is exploring a Chartered Teacher scheme to match the long established provision from General Teaching Council for Scotland (GTCS). Meanwhile, General Teaching Council for Northern Ireland (GTCNI) leads the UK in its articulation of teaching as a 'Reflective Profession'.

Clear explanation

Given the existence of principled and reflective classroom practice, it should be relatively straightforward to explain and justify this to others. And yet this is often not the case. As discussed earlier in this commentary, much teacher knowledge and understanding is implicit and tacit. We therefore need a set of conceptual tools which can be used to describe warranted practice.





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Building a conceptual framework

How is it possible to identify a set of concepts to explain something as complex as classroom practice?

When Lesley Saunders and I first explored the UK and international literature on pedagogy and teaching methods, we found a huge but disparate collection of 'big ideas' about teaching and learning in classrooms. We consulted practitioners extensively through the GTCE Networks and elsewhere. Various research studies of teacher thinking and discourse were reviewed and ideas were collected, presented and discussed at international academic events. To begin with then, we had a complex mass of words used when talking about pedagogy – many of which also embraced issues in curriculum and assessment.

Initial attempts to analyse this collection were not very productive. However, a breakthrough came when we focused on the relatively stable set of concepts which are often used to discuss curriculum design – for example, breadth, balance, relevance, differentiation, progression. Interestingly, these were all promoted in a 1985 HMI publication, *The Curriculum from 5 to 16*. How had they stood the test of time so well? Could they be related to contemporary vocabulary on pedagogy and assessment?

Patterns began to emerge. In particular, there seemed to be a number of enduring educational issues to which these long-lasting concepts relate – those concerning the **aims**, **contexts**, **processes** and **outcomes** of education. We felt this was an important insight, because it began to describe the 'epistemological work' (contribution to knowledge) which such concepts must carry out.

This commentary is thus based on the idea that concepts concerning **curriculum**, **pedagogy** and **assessment** can be organised through the 'work' which they do in enabling discussion and understanding of enduring classroom issues. Perhaps, we reasoned, making this logic explicit could enable progress towards a more robust and sustainable conceptual framework for the professional expertise of teaching.

The table below presents the conceptual framework which has evolved, so far, from this proposition.

The conceptual framework may seem daunting at first because it attempts to represent teacher expertise in a holistic way – and we know that this is complex and multi-faceted. To simplify, our argument is that, in one way or another, teachers inevitably face issues concerning **educational aims**, **learning contexts**, **classroom processes** and **learning outcomes** (the rows) and they do so in relation to **curriculum**, **pedagogy** and **assessment** (the columns).

The questions in each cell demonstrate the high levels of reflective expertise which teachers need and, as we have seen, this calls for evidence-informed professional judgement. However, the educative insight of the concepts which are used to think about and discuss such evidence is also absolutely vital. Without such analytic capacity, neither classroom enquiry nor discussion with colleagues will build sustainable professional understanding.

There is one further assumption behind the way this representation of conceptual tools has been developed which I need to make explicit – that we are concerned with the provision of some form of 'good education'. In other words, the ideas in this commentary are informed



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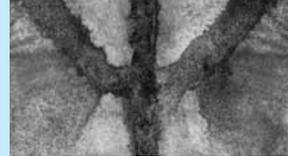
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by particular educational values and by available evidence about ‘good education’. The specific meaning and usage of the identified concepts can thus certainly be challenged. The framework is tentative and it could, and perhaps should, be compiled and re-presented in different ways. The task is difficult – and this very fact confirms the contested nature of education.

The columns of curriculum, pedagogy and assessment are an important way of reviewing the framework, but it is also worthwhile to think of the rows – as is done in the remainder of the commentary – or to explore interconnections between cells, and across the conceptual framework. *The framework is simply a tool for thinking and for discussion, to be used as readers see fit.* The remainder of the commentary explains each part and illustrates its use.

	ENDURING ISSUES	Curricular concepts	Pedagogic concepts	Assessment concepts
EDUCATION	1. Society's educational goals What vision of 'education' is the provision designed to achieve?	Breadth: does the curriculum represent society's educational aspirations for its citizens?	Principle: is the pedagogy consistent with established principles for effective teaching and learning?	Congruence: are forms of assessment fit-for-purpose in terms of overall educational objectives?
	2. Elements of learning What knowledge, concepts, skills, values and attitudes are to be learned in formal education?	Balance: does the curriculum-as-experienced offer everything which each learner has a right to expect?	Repertoire: is the pedagogic expertise sufficiently creative, skilled and wide-ranging to teach all elements of learning?	Validity: in terms of learning, do the forms of assessment used really measure what they are intended to measure?
LEARNING CONTEXTS	3. Community context Is the educational experience valued and endorsed by parents, community, employers and civil society?	Connection: does the curriculum engage with the cultural resources and funds-of-knowledge of families and the community?	Warrant: are the teaching strategies evidence-informed, convincing and justifiable to stakeholders?	Dependability: are assessment processes understood and accepted as being robust and reliable?
	4. Institutional context Does the school promote a common vision to extend educational experiences and inspire learners?	Coherence: is there clarity in the purposes, content and organisation of the curriculum and does it provide holistic learning experiences?	Culture: does the school support expansive learning by affirming learner contributions, engaging partners and providing attractive opportunities?	Expectation: does the school support high staff and student expectations and aspire for excellence?





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	ENDURING ISSUES	Curricular concepts	Pedagogic concepts	Assessment concepts
CLASSROOM PROCESSES	<p>5. Process for learners' social needs</p> <p>Does the educational experience build on social relationships, cultural understandings and learner identities?</p>	<p>Personalisation: does the curriculum resonate with the social and cultural needs of diverse learners and provide appropriate elements of choice?</p>	<p>Relationships: are teacher-pupil relationships nurtured as the foundation of good behaviour, mutual wellbeing and high standards?</p>	<p>Inclusion: are all learners treated respectfully and fairly in both formal and informal interaction?</p>
	<p>6. Processes for learners' affective needs</p> <p>Does the educational experience take due account of learner views, feelings and characteristics?</p>	<p>Relevance: is the curriculum presented in ways which are meaningful to learners and so that it can excite their imagination?</p>	<p>Engagement: do the teaching strategies, classroom organisation and consultation enable learners to actively participate in and enjoy their learning?</p>	<p>Authenticity: do learners recognise routine processes of assessment and feedback as being of personal value?</p>
	<p>7. Processes for learners' cognitive needs</p> <p>Does the educational experience match the learner's cognitive needs and provide appropriate challenge?</p>	<p>Differentiation: are curriculum tasks and activities structured appropriately to match the intellectual needs of learners?</p>	<p>Dialogue: does teacher-learner talk scaffold understanding to build on existing knowledge and to strengthen dispositions to learn?</p>	<p>Feed-back: is there a routine flow of constructive, specific, diagnostic feedback from teacher to learners?</p>
LEARNING OUTCOMES	<p>8. Outcomes for continuing learning</p> <p>Does the educational experience lead to <i>development</i> in knowledge, concepts, skills and attitudes?</p>	<p>Progression: does the curriculum-as-delivered provide an appropriate sequence and depth of learning experiences?</p>	<p>Reflection: is classroom practice based on incremental, evidence-informed and collaborative improvement strategies?</p>	<p>Development: does formative feedback and support enable learners to achieve personal learning goals?</p>
	<p>9. Outcomes for certification and the lifecourse</p> <p>Does the educational experience equip learners for adult and working life, and for an unknown future?</p>	<p>Effectiveness: are there improvements in standards, in both basic skills and other areas of curricular attainment, to satisfy society's educational goals?</p>	<p>Empowerment: is the pedagogic repertoire successful in enhancing wellbeing, learning disposition, capabilities and agency?</p>	<p>Consequence: do assessment outcomes lead towards recognised qualifications and a confident sense of personal identity?</p>



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1. Society's goals

What vision of education is the provision designed to achieve? Keys to unlock the curriculum

Who owns the curriculum? Ministers? Parents? Employers? Teachers? Children? All of them? At one time, there was an almost exclusive focus on the basic skills and bodies of knowledge which needed to be imparted. In the contemporary world, it is appreciated that whilst these remain necessary, they are not sufficient on their own. Broader and more sophisticated approaches to education are needed.

Moving in this direction, UK Governments now aim to foster creativity, personal skills and cross-curricular work through new curricular programmes such as the Creative Curriculum in Wales, England's new Key Stage 3 programmes and the forthcoming primary curriculum based on areas of learning and key skills. Taking this further again, the independent Cambridge Primary Review, whose final report was published in 2009, urged an explicit, aims-led curriculum underpinned by principles such as entitlement, equity and sustainability.

The RSA's Opening Minds initiative was a pioneer in thinking differently about curriculum building. A broad framework through which schools can teach subject content in a creative and flexible way, it aims to help schools provide young people with real world competencies in Citizenship, Learning, Managing Information, Managing Situations and Relating to People.

Northampton Academy started using Opening Minds with its Year 7 and 8s in 2006. Claire Greaves, the school's Opening Minds Programme Leader, likens the use of a competence based curriculum to "giving children a set of keys, a way to unlock the rest of the curriculum".

The school handbook states: "Opening Minds sprang from a conviction that the way young people are being educated was becoming increasingly distanced from their real needs". The 'information driven' national curriculum was neglecting skills for life, including skills for learning, the ability to manage people and situations well, and good citizenship, it continues. "Opening Minds argues that these life-skills need to be taught directly and specifically. It starts from a competence framework that aims to meet the individual's needs in the personal, social and employment worlds."

The academy began by teaching Opening Minds three hours a week, integrating history, geography and citizenship. Though motivation, behaviour and maturity improved, pupils struggled to see that they could transfer the skills they had learned to other subjects.

Now Opening Minds is taught for 10 hours a week and also incorporates English and maths. Review and preparation sessions each day help students identify which competencies they have used, and how they could use them in the next day's learning. Engaging study units, such as Roman Around or Chocolate, weave competencies, ideas and content together. Children use a matrix for self-assessment at the end of each project, choosing a statement they consider to reflect what they have achieved, and teachers add feedback.





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Aims-led innovation in curriculum, pedagogy and assessment has enormous potential for the future.

Breadth: Real-world competencies are connected to rigorous subject content, in ways that are meaningful for students.

Principle: Established pedagogic principles, such as TLRP's, are consistent with the broad, contemporary objectives of Opening Minds.

Congruence: Assessment practices reinforce curricular intentions and educational objectives.

For further details about the Northampton case study, see: www.thersa.org/projects/education/opening-minds/opening-minds-school-community/features/northampton-acadamy

The question, 'What is education for?' is explored further in TLRP's Commentary *Enriching the Experience of Schooling* – a publication by Diane Hofkins in which principles of teaching and learning are compared with government policies. See: www.tlrp.org/pub/commentaries

1. Society's goals			
What vision of 'education' is the provision designed to achieve?	Breadth: does the curriculum represent society's educational aspirations for its citizens?	Principle: is the pedagogy consistent with established principles for effective teaching and learning?	Congruence: are forms of assessment fit-for-purpose in terms of overall educational objectives?

Society's educational goals

Education connects our past to the future – but exactly what happens is worked out through debate and action in the present.

Children and young people are our most precious asset. They come to embody our culture and their values and capabilities will determine the ways in which our economy and society will evolve over the 21st century. Education both reflects society and contributes to it. Issues such as whether education reproduces social differences or provides new opportunities thus become very important. What vision of education should we adopt?

The Education Reform Act 1988 specified official educational aims for England and Wales. Children are to be offered a 'balanced and broadly based curriculum' which:

- promotes the spiritual, moral, cultural, mental and physical development of pupils; and
- prepares pupils for the opportunities, responsibilities and experiences of adult life.

The law thus formally enshrines a rounded conception of education. However, pressure for short-term performance tends to narrow such goals – and here we have a major issue of the last decade. The curriculum frameworks for Scotland, Wales and Northern Ireland promote similarly broad overall aims.



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Breadth	<p>There are many views about the areas of learning and experience which should be provided by schools. Scotland's <i>Curriculum for Excellence</i> proposes eight areas, as does Northern Ireland's new curriculum. These encompass fields such as: arts and creativity; language and literacy; environment and society; modern languages; mathematics; science and technology; health and physical education; religious and moral education. In England, very particular emphasis has been given to core subject areas of Literacy and Numeracy. Maintaining breadth in pupils' actual classroom experiences is a big challenge for teachers in any event, and is made even more difficult in such circumstances. Recent curriculum reviews (eg: Rose, 2009) may mitigate this, but curriculum and assessment need to be fully aligned to reinforce breadth of provision.</p> <p>In England, very particular emphasis has been given to core subject areas of Literacy and Numeracy. Maintaining breadth in pupils' actual classroom experiences is a big challenge for teachers in any event, and is made even more difficult in such circumstances. Recent curriculum reviews (eg: Rose, 2009) may mitigate this, but curriculum and assessment need to be fully aligned to reinforce breadth of provision.</p>
Principle	<p>This challenge concerns the extent to which teacher judgement is informed by deep understanding of learning and teaching and of the factors involved. TLRP's Ten Principles (see pages 17-18) is one way of representing these factors holistically so that their interconnectedness is emphasised. Such principles often underpin national recommendations but, at best, they should directly inform teacher expertise.</p> <p>The principles form four natural groups. The first group includes educational goals, knowledge to be learned and the prior experience of the learner. Three aspects of teacher expertise, in 'scaffolding' learning, assessment for learning and active engagement, form another. The role of social processes and informal learning feature next. Finally, the principles emphasise the significance of teacher learning and the need for consistent policy frameworks.</p>
Congruence	<p>TLRP's project on learning environments (Entwistle, 2009) studied ways in which assessment activity is aligned with learning objectives, appropriate for student backgrounds and fully supported institutionally. Assessment was thus seen as being much more than a narrow technical process, but one woven into educational organisations, subjects and their practices. Such congruence supports learning because the learner can more easily understand and engage if their experiences are consistent. This work built on the concept of 'constructive alignment' (Biggs, 2007).</p> <p>In recent years, England's focus on English and Mathematics through National Strategies, high-stakes assessment and school inspection made it difficult to provide a broad curriculum experience for pupils – the alignment between espoused educational goals and actual provision was weak. Indeed, the existence of national testing in England at Key Stage 2 remains controversial for this reason. But can such powerful influences be used more positively? TLRP's assessment Commentary is full of suggestions (Mansell et al, 2009).</p>





2. Elements of learning

What knowledge, concepts, skills and attitudes are to be learned in formal education?

Bringing the curriculum to life

Year 4 teacher Simon Mills took out a tube of sugar-coated chocolate buttons and told the children he was being short-changed. He was certain there were not as many buttons of his favourite colour as the others. Could the children help find out if this was true?

The lesson in data handling had begun and the children were instantly engaged. They worked in groups at their computers, filling in a spread sheet as they counted sweets, and discussing how to solve the problem. Everyone was keen to share their ideas and hear what other people had to say.

The lesson was filmed at Teyfant Infants in Bristol, to illustrate the TLRP principle 'Teachers should scaffold learning in appropriate ways' – something which demands a confident teaching repertoire. The school was involved in the TLRP's InterActive project, which found that ICT in the classroom will not automatically bring improvements in learning; teachers and children need to choose and use technological tools appropriately.

"One thing I think very carefully about is what tool I'm going to use," says Simon. "I sit down and think, 'am I going to use this book or that book?' 'How do I demonstrate what a full stop is and what a capital letter is?'" For this particular lesson, the questions he asked himself included: am I teaching ICT today or maths? Am I going to use a tool they're familiar with or a new one?

In this case, he wanted to ensure the children could access the maths, so he chose technology that would help them do so quickly. Whichever choice he makes, though, "it's important to use real tools with real outcomes."

Simon likened his job to that of an orchestra conductor, and said it was more important to him to have an agenda than a plan. "It's not a passive role. I'm trying to lead the children toward something. I have got an agenda. I have got an outcome, which is an end point. I know I have got to get there."

Significant numbers of children in our schools find it difficult to access the curriculum and they are attaining at a level below their abilities. Such children may be bored or distracted, unable to concentrate for all sorts of reasons.

However, findings from a number of robust studies featured on the 'Research for Teachers' area of the GTCE website show that teachers like Simon bring the curriculum to life for their students by providing a balanced curriculum, varied learning experiences and valid assessment feedback.

Balance: The lesson offers children different ways to learn and enhances personal, social and academic skills.





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Repertoire: The teacher makes informed decisions about strategies for advancing children’s learning and keeping them engaged and autonomous.

Validity: The teacher uses assessment for learning in conducting the lesson, giving the children work which takes them towards a clear goal, based on a judgement of where they are at the beginning.

For more information on the TLRP project see: www.tlrp.org/proj/phase11/phase2i.html or Sutherland, R., Robertson, S. and John, P. (2008) *Improving Classroom Learning with ICT* (London, Routledge). The video is available at: www.tlrp.org/pub/videopip.html. The GTCE link is: www.gtce.org.uk/teachers/rft/curriculum0809/curriculumoverview/

2. Elements of learning			
What knowledge, concepts, skills, values and attitudes are to be learned in formal education?	Balance: does the curriculum-as-experienced offer everything which each learner has a right to expect?	Repertoire: is the pedagogic expertise sufficiently creative, skilled and wide-ranging to teach all elements of learning?	Validity: in terms of learning, do the forms of assessment used really measure what they are intended to measure?

Elements of learning

Pupils at school acquire knowledge, concepts, skills, values and attitudes, and they do so through their work across the whole curriculum and beyond.

Knowledge and concepts to be learned are often suggested by national curriculum frameworks, and may be complemented by promotion of the skills and disposition of ‘learning-how-to-learn’. Some of these elements of learning, such as the basic skills of literacy and numeracy, are typically given priority in the formal curriculum.

Values and attitudes are no less important. Scotland’s Curriculum for Excellence is said to be underpinned by the values inscribed on the mace of the Scottish Parliament – wisdom, justice, compassion and integrity. However, the tacit messages that go out from the ‘hidden curriculum’ of everyday experience may have a particularly direct influence. Teachers thus have enormous responsibilities not just for the content of what learners may learn, but in contributing to the values and attitudes of our future citizens. Nor can this responsibility be declined, for pupils will develop values and attitudes in any event





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Balance	<p>As HMI (1985) put it: A balanced curriculum should ensure that each area of learning and experience and each element of learning is given appropriate attention in relation to the others and to the curriculum as a whole'. If areas of learning are organised in terms of subjects, an appropriately balanced allocation of sufficient time and resources is crucial.</p> <p>Elements of learning – knowledge, concepts, skills, values and attitudes – are taught within each curriculum area and again need to be balanced. Over-emphasis on knowledge or skills sometimes de-motivates learners and should be complemented by support for conceptual understanding and opportunities to develop personal perspectives. Such goals are clearly dependent on having an appropriate pedagogic repertoire.</p>
Repertoire	<p>Educational objectives are wide-ranging and the challenges of factors such as classroom space, pupil organisation, time, task, activity and routine are formidable. A range of teaching approaches is therefore required. Alexander (2008) suggests that three broad aspects of pedagogical repertoire can be identified:</p> <ul style="list-style-type: none"> • organising interaction: whole class teaching, collective group work, collaborative group work, one-to-one activity with the teacher, one-to-one activity with peers; • teaching talk: through use of rote, recitation, instruction, discussion, dialogue, etc; and • learning talk (by pupils): such as narrate, explain, speculate, argue, negotiate, etc. <p>To make provision for all elements of learning to be taught through classroom activities and tasks, teachers need to be confident users of a range of pedagogic approaches.</p>
Validity	<p>Assessing things that are easy to measure is not necessarily the same as assessing things which are educationally important – but it is tempting to do so none-the-less. In classrooms, for example, it is routine to test forms of pupil performance, but much harder to assess deeper understanding. Learning is not always 'on the surface', so we have to find insightful ways of investigating and analysing.</p> <p>In general, it is easier to assess knowledge and skill than it is to assess understanding and attitudes. The former tend to be more amenable to categoric questions and tests. Understanding and attitudes are likely to be revealed more through dialogue, discussion and demonstration and to require teacher interpretation of the available evidence. Again, to draw out these crucial elements of learning in valid way, a confident pedagogic repertoire is needed.</p>



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3. Social context

Is the educational experience valued and endorsed by society?

Parents as partners

David and Lucy, 11-year-old twins, were looking forward to their move up to secondary school. David, a sporty, outgoing, but quirky boy, was particularly enthusiastic. His more conformist sister was less keen to leave the comfort of the junior classroom.

But in the event, Lucy thrived and David struggled – he failed to make friends, was bullied, and had to be switched out of his tutor group at the end of Year 7. The twins' parents were unable to provide the support or have the access to school that they had had before, and their mother found this period, and the changes in her children, difficult.

Researchers who followed the twins through their transfer believe a programme from TLRP's Home-School Knowledge Exchange project (HSKE) could have made all the difference. HSKE helped to bridge home and school by valuing the contributions of all parties: parents, children and teachers. Involvement in such a scheme might have enabled David's parents to work with his teachers to help him to develop different coping strategies and to deal with the challenges to his sense of self.

School transfer can challenge children's established identities and force them to reassess who they are and how they interact with others. HSKE enabled parents, teachers and children to engage with this challenge together, and provided a structure that makes it easier for parents to share their knowledge of their children with the school.

One of HSKE's three strands was secondary transfer. Action researchers worked with four primary schools in Bristol and Cardiff and their receiving secondaries on improving children's experience of transfer by bringing schools, parents and children together to share the same learning experiences.

For example, videos of Year 7s, their parents and their teachers talking about secondary school life were shown to Year 6s and their parents and teachers. Year 6 children made passports of the skills they might need in secondary school. This meant they had to reflect on themselves as individuals, to imagine themselves in the new setting and to offer themselves advice.

When they started at secondary, children brought in photos of their out-of-school lives. Parents were invited to an informal evening with teachers, and one secondary held an event specifically to discover how the knowledge of the Somali community could be drawn on by the school.

The children involved appeared to adjust more quickly to secondary school and to have better attitudes towards learning. They also made significantly greater progress in literacy between Year 6 and Year 7 than other children.

Connection: Home-school knowledge exchange supports curriculum engagement with the real lives of children and parents.





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Warrant: Authentic home-school engagement provides opportunities for home knowledge and teacher expertise to be shared and understood.

Dependability: New circumstances may compromise assessment of children's capabilities, but contextual understanding can assist both performance and interpretation.

For more information on the TLRP project, see: www.tlrp.org/proj/phase11/phase2e.html or: www.gtce.org.uk/teachers/rft/home_school0408/. The case-study above is from: Osborn, M, McNess, E, Pollard, A. (2006) Identity and transfer: a new focus for home-school knowledge exchange, *Educational Review* 58 (4) pp 415-33. HSKE worked with a theatre-in-education company, to focus attention on issues surrounding transfer. A video download, 'Ready or Not' is available at: www.tlrp.org/pub/video.html.

3. Community context			
Is the educational experience valued and endorsed by parents, community, employers and civil society?	Connection Does the curriculum engage with the cultural resources and funds-of-knowledge of families and the community?	Warrant Are the teaching strategies evidence-informed, convincing and justifiable to stakeholders?	Dependability Are assessment processes understood and accepted as being robust and reliable?

Community

'Community' is associated with social relationships, cultures and histories and with a collective sense of place and identity.

Some people and families may feel deeply embedded in their communities and benefit from extensive social networks; such social capital often brings status and advantage. Others, perhaps minority groups, may feel more marginal or even excluded. Such diversity is a very strong feature of contemporary life.

In this conceptual framework, 'community' is seen both as a resource to support learning and as denoting stakeholders for accountability.

TLRP's research has consistently shown the significance of informal, out-of-school learning. Those in the community can thus be a great support for learning, if constructive and trusting connections are established.

However, those beyond the school gate are also positioned as consumers. Parents, employers, inspectors and others expect children to receive high quality education. Forms of pedagogy and assessment increasingly have to be justified – hence the concepts of warrant and dependability.



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<p>Connection</p>	<p>‘Only connect – live in fragments no longer’, wrote E. M. Forster. This thought can be applied to the meaningfulness and linkage of the curriculum with the communities which each school serves. TLRP’s Home-School Knowledge Exchange project affirmed the knowledge of families and devised ways of drawing this into the curriculum. Outcomes in literacy and numeracy improved and transfer between Key Stages 2 and 3 transfer was facilitated (Hughes et al, 2007, 2008).</p> <p>Taking this idea rather further, the Cambridge Primary Review recommended that 30% of teaching time should be framed by a community curriculum drawing on local organisations, resources and environments. In the secondary context, the links which already exist to employers and other community organisations might be expanded.</p> <p>The underlying theme here is about the contextual meaningfulness of the curriculum. Whilst national frameworks exist in Wales, Scotland, Northern Ireland and England, local adaption is likely to enhance both the perceived value of schooling and the quality of learning.</p>
<p>Warrant</p>	<p>The word ‘warrant’ has several meanings associated with forms of authorisation and justification, ranging from the Royal Warrant to an arrest warrant.</p> <p>In relation to pedagogy, the concept of warrant challenges us to justify our practice to stakeholders such as parents, employers and learners themselves. We defined pedagogy earlier as ‘the act of teaching, together with its attendant theory and discourse’. Further, it was suggested that maintaining a sound educational rationale and forms of reflective practice can support continuing improvement in the quality of professional judgements. This is one clear way of fulfilling the responsibility, set out in the Codes of Conduct and Practice of the UK GTCs, for maintaining the quality of teaching.</p>
<p>Dependability</p>	<p>How much confidence can we place in different forms of assessment? Technically speaking, high dependability arises when an assessment is both valid and reliable – it measures what it is intended to measure and it does so with high consistency.</p> <p>Consistent reliability is not easy to achieve. As TLRP’s Commentary on assessment pointed out (Mansell and James, 2009), this can be undermined by unfair or biased marking and by variations in standards applied by different teachers. Other studies have shown how differences in testing situations or in pupil preparation can affect performance. Electronic marking may achieve consistency in that respect, but struggles on some tests of validity. On the other hand, teacher assessment is likely to strengthen the validity of judgements made, but remains vulnerable to inconsistency unless moderation processes are taken extremely seriously.</p> <p>For all these reasons, the dependability of school assessments always has to be worked for.</p>





4. Institutional context

Does the school support a common vision to extend educational experiences and inspire learners?

Pupil consultation is right on target

When Rivington and Blackrod High School consulted with pupils about target setting, it helped to inform teachers' understanding of what school learning felt like for Year 10 and Year 11 students.

By the end of the initiative, the whole-school approach was giving a more active role to students in deciding their targets. Teachers were offering clearer guidance on ways of raising attainment in specific subject areas. Students now had a much clearer understanding of their targets and seemed motivated by the increased ownership and choice, while remaining realistic about their capabilities.

Nine students worked with humanities teachers for two years to investigate pupil views and attitudes towards learning, and how the school's work on target setting could be improved. The teachers and students met regularly to discuss their progress and attainment. During interviews with a researcher from TLRP's 'Consulting Pupils' network, the students indicated that they:

- wanted respect and to be involved in their education;
- did not tolerate poor learning environments;
- had clear ideas about what good teaching and learning looked like;
- had mixed feelings about the value of target setting; and
- wanted to know how to improve their work as well as what required improvement.

Some students felt that being told that they would receive a poor grade affected their confidence. Others made suggestions for improvements:

"Someone that knows you should sit down and speak to you and discuss where you are now and what you think you can achieve." (Y10 student)

"It's easier if the teacher has a word with you and says, 'Look, you're slipping in this' rather than having to set the grades." (Y10 student)

Involvement in the project saved one student from being permanently excluded. He now felt he could talk to staff, and the kudos of being involved enhanced his self-esteem and tolerance of school systems.

Under the new process, students were invited to set their own targets based on their average KS3 points and chances graphs. The Head of Year summed up the project's impact.

"They had a much clearer understanding of the targets and were motivated by the element of ownership and choice yet realistic about their capabilities ... It is surprising what nine students can achieve and I am sure they are probably unaware of the effect their work has had on school policy ... It certainly opened my eyes toward the



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effectiveness of ‘pupil voice’ and has influenced the way I now encourage teams of staff to include ‘pupil feedback’ in the departmental procedures.”

Coherence: A unified policy on target setting was established, and students understood it and what it was for.

Culture: Consulting pupils made the school’s policy more relevant and effective, and gave children a sense of ownership.

Expectations: Being involved in discussing and setting their own targets enhanced aspirations and enabled children to confidently reach for higher goals.

For more information on the TLRP project see: www.tlrp.org/proj/phase1/phase1dsept.html or consult: Rudduck, J. and McIntyre, D. (2007) *Improving Learning by Consulting Pupils* (London, Routledge). Research for Teachers covers it at: www.gtce.org.uk/teachers/rft/pup_learn0605/pup_learn0605overview. The case-study above is drawn from Cox, I. (2004) *Developing student leadership in a Networked Learning Community* (London, NTRP).

4. Institutional context			
Does the school promote a common vision to extend educational experiences and inspire learners?	Coherence: is there clarity in the purposes, content and organisation of the curriculum and does it provide holistic learning experiences?	Culture: does the school support expansive learning by affirming learner contributions, engaging partners and providing attractive opportunities?	Expectations: does the school support high staff and student expectations and aspire for excellence?

Institutional context

Three points about effective schools are often picked out: effective head teachers are purposeful and act as leading professionals; there is a resolute commitment to the improvement of teaching and learning; and there is shared vision to lift aspirations and provide consistency in practices across the school (Sammons, Hillman and Mortimore, 1995). A similar list has been produced in studies of outstanding schools in challenging circumstances (Ofsted, 2009).

In complementary ways, a ‘learning school’ is one in which teachers, pupils and others systematically commit to collaborative self-improvement on teaching and learning. Leaders at all levels work to discover, release, support and spread the expertise of colleagues (James et al, 2007). Pupil learning is significantly enhanced by such teacher learning. Such schools recognise the emotional intensity of good teaching and provide for teachers’ well being as well as for principled, distributed leadership (Day et al, 2007).





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Challenges for Teacher Education

Coherence	<p>A coherent curriculum is one that makes sense as a whole; and its parts are unified and connected by that sense of the whole. This requires expert curriculum knowledge, planning and presentation of the provision. National curricula sometimes take much of this responsibility in structuring subject content, but schools are increasingly being invited to exercise judgement within less prescribed frameworks.</p> <p>Coherence and progression within areas of learning enable students to build their understanding cumulatively. In Scotland, the 'Curriculum for Excellence' states that: 'all children and young people have an entitlement to a curriculum which they experience as a coherent whole, with smooth and well-paced progression through the experiences and outcomes' (LTS, 2009).</p> <p>Another dimension of coherence concerns the relationship across areas of the curriculum. In England, cross-curricular studies are recommended in the new primary curriculum to enable children to apply what they have learned – an approach which 'respects the integrity of subjects but lessens the rigidity of their boundaries' (Rose, 2009).</p>
Culture	<p>School culture is often cited as major influence on teaching and learning. In ideal circumstances, a culture of collaboration would exist among the management and staff of the school, in which the values, commitments and identities of individuals are perfectly aligned with the teaching and learning strategies and aspirations of the institution. Things are usually more complicated – but the ways in which such complexity is handled is crucial.</p> <p>TLRP's studies of workplace cultures (Evans et al, 2006) contrasted 'expansive' and 'restrictive' learning environments. In the former, staff were engaged in meaningful work, with supportive leadership and opportunities for personal learning and progression. Another project showed how teachers' qualities affect pupil learning, finding that: 'pupils of teachers who are committed and resilient are likely to attain more than pupils whose teachers are not' (Day et al, 2007). A restrictive workplace culture tends to result in more pragmatic approaches to teaching as work.</p>

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Reflective Practice

Challenges for Teacher Education

Expectations

Learners benefit when significant others in their lives believe in them. Parental and teacher expectations are particularly significant for children (Hattie, 2009) and are often based on judgements about capability and potential. Expectations are thus pervasively embedded in perception, relationships and everyday life. As such, although tacit, they may be particularly meaningful to learners and influential in the formation of self-belief. Expectations are thus a form of on-going, social assessment. When applied negatively to whole groups, then cultural expectations can present significant barriers to learning.

Because of its significance, raising expectations is a common recommendation for school improvement. To be effective, such expectations have to be authentic, because a connection has to be made with the self-belief of learners. Expectations are thus inevitably linked to the leadership of the school as a whole, and to the culture of the communities which it serves.

5. Processes for learners' social needs

Does the educational experience build on social relationships, cultural understandings and learner identities?

Removing barriers to learning

Teachers at an East Midlands primary school wanted to find ways to improve the learning of lower attaining pupils, so they asked the children themselves. Their answers, along with the findings from classroom observations by researchers, were used to create a more positive learning environment for all.

The school focused on 12 low-attaining children with special educational needs over a half-term. Pupils were asked questions such as:

- What helps you learn in English?
- What helps you learn in Maths?
- What makes it difficult for you to learn?
- Is there anything the teachers or other children can do to make it easier for you to learn?

The most significant findings were that:

- most pupils believed they could only work with the support of adults;
 - there were limited opportunities for independent work; and
- the children liked receiving praise for effort and for incremental progress.

The school acted on these findings. Opportunities for more individual work were provided, and for independent work. Teachers continued to praise pupils for their effort but also fed back more particularly on what particular things they had done well.

The school built opportunities for greater independence into lesson planning and designed more activities which would enable children to experience success. For example in maths, simpler individual exercises were designed and pairs of pupils were sent to do an activity together without help from an adult. Teachers also began to focus on constructive feedback





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as well as straightforward praise. For example: 'That's great, you've got the first sound of every word right'. The researchers also talked with support staff about the importance of both making positive comments to the children and prompting the children without giving them answers. On top of all that, pupils saw their comments being acted upon.

TLRP projects (Ainscow et al 2006, Howes, 2009) found that the development of inclusive practices requires those within a school to focus collaboratively on how to remove barriers experienced by excluded learners. Becoming more inclusive involves being ready to experiment with new practices which can meet specific personalised needs.

Personalisation: The school set out to revise its programme for special needs children in the light of evidence about what those children wanted and needed.

Relationships: By asking for children's views and acting on them, teachers showed that respect was mutual.

Inclusion: By receiving constructive feedback and opportunities, children with special needs and lower attainers could develop both confidence and skills.

For more information on the two TLRP projects, see: www.tlrp.org/proj/phase1/phase1asept.html or consult: Ainscow, M., Booth, T and Dyson, A. (2006) *Improving Schools, Developing Inclusion* (London, Routledge). And view: www.tlrp.org/proj/smbdavies.html or consult:

Howes, A. Davies, S.M.B. and Fox, S. (2009) *Improving the Context for Inclusion: Personalising Teacher Development through Collaborative Action Research* (London, Routledge). The case study is drawn from: Walters, E., McParland, J., & Lichfield, G (2008) *How inclusive are our classrooms?* (London: NTRP). Further information can be found at: www.gtce.org.uk/teachers/rft/low_attain0609/low_attain0609cs/cs4/

5. Process for learners' social needs			
Does the educational experience build on social relationships, cultural understandings and learner identities?	Personalisation: does the curriculum resonate with the social and cultural needs of diverse learners and provide appropriate elements of choice?	Relationships: are teacher-pupil relationships nurtured as the foundation of good behaviour, mutual wellbeing and high standards?	Inclusion: are all learners treated respectfully and fairly in both formal and informal interaction?

Processes for learner's social needs

Once, teaching was based on filling the 'empty vessel' of each child's mind. Later, the activity of the pupil in 'making sense' of new knowledge became recognised. In both cases the learner was treated as an individual, with little consideration of social circumstances and relationships.

Now the enduring role of culture and social processes are better understood. The ways in which knowledge is represented and understood are cultural, and the processes through which pupils engage with learning are influenced by peer and teacher relationships within the school and by family, community and media beyond. Further, young people are engaged



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not only in learning specific knowledge and skills, but in a process of personal development. They develop an identity within their network of social relationships in family, school and community.

This is not easy, and provision for personalisation, good relationships and inclusive participation are likely to be greatly appreciated by children and young people.

Personalisation	<p>There has been much discussion in England about the meaning of 'personalised learning'. The Chief Inspector explained: 'Personalising learning means, in practical terms, focusing in a more structured way on each child's learning in order to enhance progress, achievement and participation' (Gilbert, 2006, p2). Her recommendation was for more responsiveness from teachers, including use of assessment for learning, pupil consultation, learning how to learn and new technologies.</p> <p>This is not, then, a throwback to 'child-centredness' in the sense of following pupil interests for their own sake. Rather, it proposes customisation of curriculum entitlements so that learners from diverse backgrounds and capabilities are better able to engage with them appropriately. Personalisation thus implies elements of choice. However, for both manageability and effectiveness, many of these choices are likely to be structured around common issues which arise in tackling learning difficulties or extending understanding.</p>
Relationships	<p>'Good relationships' between the teacher and the class are at the heart of pedagogic effectiveness – and every teacher knows this. But what does it really mean?</p> <p>Both pupils and teachers can feel vulnerable in classrooms, but a good relationship is founded on mutual respect and acceptance of ways of getting on together – described technically as a 'working consensus' (Pollard, 1985). This embraces taken-for-granted rules about acceptable behaviour and understandings about how infringements will be dealt with.</p> <p>The teacher leads in establishing such rules, but must be mindful of pupil interests and act fairly and consistently. The understandings which result are the basis of the moral order of the classroom and the foundation of good behaviour. Expectations for standards of work then follow. As successes are achieved, a sense of fulfilment and well-being is shared, and a positive classroom climate is created. This climate has to be nurtured and sustained over time, for its ebb and flow can be sensed.</p>





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Inclusion

Every child certainly does matter, and ensuring that no one is 'left behind' is not easy. Children with special educational needs within mainstream classes require particular attention to ensure that potential barriers to their learning are removed as far as possible. In the case of a physical disability this may require a practical form of provision. Inclusion is more complex for children who have some form of learning difficulty. Careful and sensitive diagnostic work is necessary.

An enduring problem for education systems is that some groups of pupils tend to underperform. The strongest pattern is that of social class but other factors such as ethnicity and gender are important too. TLRP's inclusion projects showed how teacher expectations about capabilities influence learners – sometimes adversely (Ainscow et al 2006). Engaging positively is thus likely to be very helpful (Howes et al, 2009). Where teachers do differentiate between pupils, the effects are often reinforced by the polarizing effects of child culture.

6. Processes for learners' emotional needs

Does the educational experience take due account of learner views, feelings and characteristics?

Becoming an individual

Hazel had a vivid imagination and considerable artistic skills. When she started primary school, she was also very determined and somewhat egocentric. Her school learning in Reception and Year 1 was disappointing and she tended to reject the curriculum tasks offered by her teachers in favour of the richness and independence of her own imaginative world. For Hazel, school offered little that was meaningful.

In Year 2 there were three important developments. First, Hazel was taught by a teacher who really worked to develop a close relationship. The teacher described the result as 'like opening Pandora's Box'. Second, Hazel began to be aware of her younger sister's progress. Affection and support from parents was now mixed with sibling rivalry, and this focused Hazel's attention on learning to read. Third, Hazel's parents worked closely with her teacher. They read to her, supported her attempts to read and talked to her about her approach to books.

After one bath-time chat about what to do if 'stuck' on a word, Hazel finally began to believe in herself. Her father said, 'Well, you're good at teaching yourself ... You're the one that's learning and picking these things up'. Tucked up in bed and with books around her, she found that it was true. She could work things out, and she began, bit by bit, to read. Moving from concern and support, her parents and teacher then had to manage her pride and enthusiasm.

Hazel was one of a group of children whose learning was tracked by TLRP researchers from reception through their entire school careers. The researchers sought to understand the social influences on the children as they learned and developed as individuals.

For Hazel, there was a supplementary discovery – that she could express her imagination through writing. This gave her a medium for success within the core curriculum, and in this





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respect the curriculum and the person began to connect. Hazel’s learning needs fascinated many of her successive teachers and, when engaged, Hazel was able to realise much of her potential. Sadly, there were no similar developments in mathematics; and performance testing passed her by as ‘something done to her’.

In primary school, Hazel formed a strong friendship with Harriet. They shared similar perspectives, independence and humour. By eleven, their culture was distinct, their self-confidence had developed and their individual identities were assured as they moved into secondary education.

Factors such as the school’s curriculum plans, Hazel’s national test results, her teachers’ subject knowledge and pedagogic skill, Ofsted findings and the market position of the school were all relevant to this story. But they are wholly inadequate as a way of understanding what was going on as Hazel learned and developed as a person. In her early twenties, Hazel studied and worked as an artist.

Relevance: As a young child, Hazel was unable to engage with the curriculum until she found ways of expressing herself and succeeding in school terms.

Engagement: Hazel’s teacher and parents took a real interest in her and provided her with personalised opportunities to learn.

Authenticity: Test scores don’t matter to every child. For a girl like Hazel, self assessment was more important.

A TLRP Research Briefing summarising the implications of the Identity and Learning Programme is at: www.tlrp.org/pub/documents/Pollard_RB_23_FINAL.pdf. For further information, see: www.tlrp.org/project%20sites/ILP and, for Hazel’s story in particular, consult: Pollard, A. with Filer, A. (1997) *The Social World of Children’s Learning* (London, Continuum).

6. Processes for learners’ emotional needs			
Does the educational experience take due account of learner views, feelings and characteristics?	Relevance: is the curriculum presented in ways which are meaningful to learners and so that it can excite their imagination?	Engagement: do the teaching strategies, classroom organisation and consultation enable learners to actively participate in and enjoy their learning?	Authenticity: do learners recognise routine processes of assessment and feedback as being of personal value?

6. Processes for learners’ emotional needs

We all, at any age, value our dignity and appreciate it when our individuality is recognised. And we also, as part of our personal development, have to learn to appreciate the needs of others. Goleman (1996) called this ‘emotional intelligence’ – an idea which combines social empathy and skills with personal awareness, motivation and capacity to manage one’s own feelings. Schools have always worked hard to support such development though curricular provision such as PSHE, drama and the arts.





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Feelings about learning itself will directly affect outcomes. Pupils are expert at detecting teacher mood, respect and interest, and research demonstrates the importance of providing a consistent, positive classroom climate. Confidence to tackle new learning challenges is significantly helped by interesting curricula, engaging activities and meaningful feedback. Pitching such learning experiences appropriately is crucial too, with anxiety arising if they are too challenging, and boredom if deemed too easy, repetitive or irrelevant. Such feelings are felt individually but are almost always strongly influenced by peer culture. John Holt's classic book, *How Children Fail* (1964), argued that underperformance is linked to such fear of failure.

Relevance	<p>School inspectors got this right some time ago. HMI wrote: 'The curriculum should be seen by pupils to meet their present and prospective needs. What is taught and learned should be: worth learning in that it improves pupils' grasp of the subject matter and enhances their enjoyment and mastery of it; increases their understanding of themselves and the world in which they are growing up; raises their confidence and competence in controlling events and coping with widening expectations; and progressively equips them with the knowledge and skills needed in adult working life' (HMI, 1985, p 45).</p> <p>Quarter of a century later, we have even more diverse and rapidly changing societies. Inequality and under-performance remain intractable for many, so the challenge for schools to offer relevant curricula is very considerable. This is one reason why national frameworks should provide for local adaption, and why teachers' knowledge of the learners and communities they serve is irreplaceable.</p>
Engagement	<p>TLRP research on pupil consultation (eg: Rudduck and McIntyre, 2007) and learner identities (eg: Pollard and Filer, 2007) showed that, if pupils feel that they matter in school and are respected, then they feel more positive about themselves as learners. They can understand and manage their own progress better, and feel more included. The underlying driver here is termed 'agency' – the opportunity for self-directed action and fulfilment.</p> <p>Young people become more engaged if their perspectives, concerns and experiences are taken seriously. The projects found that pupil contributions were invariably practical and constructive – and were thus also beneficial to teachers. Such feedback supported more open, collaborative and communicative relationships and thus had the potential to transform pedagogic strategies and enhance learning outcomes.</p>

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Authenticity

Traditional assessments measure what a student can recall or do in the formal context of testing. By comparison, authentic assessment puts the emphasis on the meaningful application in real-life situations (Wiggins, 1989). Rather than being required to simply demonstrate performance for an artificial purpose, the learner has the opportunity to apply their growing knowledge and capability to genuine activity. The task, and feedback on it, is thus more personally meaningful. Authentic assessment is likely to affirm those who have the deeper levels of skill and understanding which are needed for application.

Overcoming the artificiality of school so that new knowledge can be grounded in the 'real world' is not easy. Project work is a long-standing strategy and the internet and new technologies now provide wonderful resources. There are many contemporary initiatives to promote 'real-world learning', primarily because transfer of school learning in, for instance, Maths and Science, consistently proves to be difficult.

7. Processes for learners' cognitive needs

Does the educational experience match the learner's cognitive needs and provide appropriate challenge?

Questions are the answer

Do children learn better when the teacher seeks 'right' answers, or when ideas are discussed and explored? Most people would agree on the latter, but it can be very easy to fall into the trap of asking closed questions.

One science teacher radically changed his questioning techniques. In earlier lessons, he asked individual students closed questions requiring brief factual answers. Students scored points because they guessed what he wanted them to say, while others were highlighted for not paying attention. Realising the need to improve his students' learning experiences, the teacher worked on extending wait time, involving more students in whole-class dialogue and responding to incorrect answers rather than ignoring them.

Later, he taught this lesson on photosynthesis. He showed the class two geranium plants – one healthy and large, the other spindly, and asked the students to discuss in pairs why the plants had grown differently.

Teacher: Okay. Ideas?

About half the class put up their hands. Teacher waits for 3 seconds. A few more hands go up.

Teacher: Monica – your group? Pair?

Monica: That one's grown bigger because it was on the window.

Teacher: On the window? Mmm. What do you think Jamie?

Jamie: We thought that ...the big 'un had eaten up more light.

Teacher: I think I know what Monica and Jamie are getting at, but can anyone put the ideas together? Window – Light – Plants? *Again about half the class put up their hands. The teacher chooses a child who has not put up his hand.*





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Teacher: Richard.

Richard: Err yes. We thought, me and Dean, that it had grown bigger because it was getting more food.

Some students stretch their hand up higher. The teacher points to Susan and nods.

Susan: No it grows where there's a lot of light and that's near the window.

Teacher: Mmmm. Richard and Dean think the plant's getting more food. Susan ... and Stacey as well? Yes. Susan thinks it's because this plant is getting more light. What do others think? Tariq.

Tariq: It's the light cos it's photosynthesis. Plants feed by photosynthesis.

The teacher writes "photosynthesis" on the board.

Teacher: Who else has heard this word before?

Almost all hands go up.

Teacher: Okay. Well can anyone put plant, light, window and photosynthesis together and tell me why these two plants have grown differently?

The teacher waits 12 seconds. Ten hands went up immediately he stopped speaking. Five more go up in the pause.

Teacher: Okay. Carolyn?

Carolyn: The plant ... The big plant has been getting more light by the window and cos plants make their own food by photosynthesis, it's ...

Jamie: Bigger.

In this lesson, the teacher explored and helped to integrate students' understanding of photosynthesis. He created opportunities to exchange ideas, articulate thoughts and modify answers in a supportive environment. He encouraged more students to participate and give longer answers. This approach changed the way the students participated in the classroom dialogue and increased their understanding.

Differentiation: The teacher enabled children with different levels of understanding to express their ideas and learn from each other in a non-threatening atmosphere.

Dialogue: The teacher drew out what children knew through careful questioning. He created a framework to help them make sense of their ideas.

Feedback: Teacher feedback was formative; it helped move on children's thinking, and encouraged them to participate.

This case study derives from the GTCE Research for Teachers' account of the 'King's Medway Oxford Formative Assessment Project' (KMOFAP) at: www.gtce.org.uk/teachers/rft/afl_prac0904/afl_prac0904cs/casestudy2/

It illustrates the power of appropriate scaffolding and feedback in teaching and learning.

For further practical suggestions, see TLRP's: James, M, et al (2006) *Learning How to Learn: Tools for Schools* (London: Routledge).



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7. Processes for learners' cognitive needs			
Does the educational experience match the learner's cognitive needs and provide appropriate challenge?	Differentiation: are curriculum tasks and activities structured appropriately to match the intellectual needs of learners?	Dialogue: does teacher-learner talk scaffold understanding to build on existing knowledge and to strengthen dispositions to learn?	Feedback: is there a routine flow of constructive, specific, diagnostic feed-back from teacher to learners?

Cognition refers to the mental processes involved in gaining knowledge and understanding. These include thinking, knowing, remembering, judging, and problem solving. These high-level functions of the brain draw on capabilities such as language and perception. The future promise of neuroscience is considerable (see Howard-Jones, 2007) but social and cultural factors remain crucial in classroom teaching and learning processes.

The brilliance of Vygotsky's psychology derives from his insight in relating cognitive, social and cultural factors together. So we meet each pupil's cognitive needs through social processes of teaching and learning, and the understanding that is developed relates to culturally embedded knowledge. Crucially, the teacher *mediates* between knowledge and learner. A teacher's explanation, questions, discussion, or structured task, provides another type of scaffolding – if they are appropriately framed. In these cases, the teacher combines challenge and support so that the learners are encouraged to extend their understanding. There is a good introduction to Vygotsky's work, with classroom case studies, at www.gtce.org.uk/teachers/rft/vygotsky1203/

Differentiation	<p>Curriculum goals must be converted to tasks and activities and then presented to learners in ways to which they can relate. Too difficult, and frustration often follows; too easy, and boredom may result. The goal is to match the learner and the task so that he or she feels appropriately challenged. Pleasure from success then reinforces learning. But since all learners are different, there is considerable skill in achieving a differentiated match.</p> <p>Three basic strategies can be used to achieve this:</p> <ul style="list-style-type: none"> • <i>vary the task</i>: so slightly different tasks are set to meet the needs of particular individuals or groups; • <i>vary the expected outcomes</i>: so whilst the whole class would participate in the same tasks and activities, pupil performance would be judged using specific criteria; and • <i>vary the level of support</i>: so reference books or a classroom assistant might support some children, whilst others would work alone (see www.teachers.tv/video/2748).
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Dialogue	<p>‘Whole-class interactive teaching’ describes structured, teacher-controlled but pupil-active methods – such as the National Strategies in England aimed to provide. Questioning in challenging, engaging and respectful ways is an important way in which pupil understanding can be extended.</p> <p>Dialogic teaching takes this further to engage the teacher and learner together and to explicitly use language as a tool for learning (Mercer and Littlejohn, 2007). Research suggests that such responsive scaffolding of learning supports longer-term commitment to learning. Alexander (2006) identified these five characteristics:</p> <ul style="list-style-type: none"> • <i>collective</i>: teachers and children address learning tasks together; • <i>reciprocal</i>: teachers and children listen to each other, share ideas and consider alternative viewpoints; • <i>supportive</i>, children articulate their ideas freely and confidently; • <i>cumulative</i>: teachers and children build on each other’s ideas; and • <i>purposeful</i>: teachers plan and steer classroom talk in relation to educational goals.
Feedback	<p>Providing appropriate feedback to learners has one of the largest measurable effects of any teaching strategy (Hattie, 2009). This fact underlies ‘assessment for learning’ (Black and William, 1998) which has now been taken up in many school systems across the world. Such formative assessment is an integral part of pedagogy and is designed to help learners grow their capacity to manage their own learning. The TLRP project on <i>Learning How to Learn</i> (James et al, 2007) showed that the most effective teachers have frameworks of subject and developmental understanding which enable them to respond constructively to pupils’ attempts to learn. Such diagnostic and knowledgeable flexibility is essential, so assessment for learning benefits from supportive school and policy contexts. Peer and self-assessment feedback extends this principle further, enabling learners to begin to evaluate learning independently for themselves.</p> <p>See also TLRP’s Commentary, <i>Assessment in Schools: Fit for purpose</i> (Mansell et al, 2009).</p>

8. Outcomes for continuing learning

Does the educational experience lead to development in knowledge, concepts, skills and attitudes?

A cultural revolution in teaching and learning

Mulberry school was formed from the merger of two secondary schools. Anna, the new head teacher, believed that cultural rebuilding required a concerted move from a teaching-centred view to a learning-centred view. For the Senior Leadership Team it was an opportunity to develop a process of reflection on the very process of learning itself – learning how to learn.

When Mulberry joined TLRP’s *Learning How to Learn Project* (LHTL), the most talented teachers in the 1100-pupil school were already providing Inset sessions for their colleagues,



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based on their subject expertise. This was complemented by departmental reviews, lesson observations and interviews with staff and young people about lessons observed.

For the Senior Leadership Team, LHTL would 'put learners in the driving seat'. Self- and peer-assessment would be key strategies, and setting learning objectives and understanding criteria would promote learning autonomy. Staff would therefore be able to rise above constraining demands such as targets, tables and routine 'delivery' of the curriculum.

Creating a 'learning how to learn' mindset was dependent on teacher feedback, clearly focused on helping pupils to develop their understanding, to think more critically about their learning, and to self evaluate. Guidelines for staff explained the characteristics of effective feedback.

Mulberry students were taken seriously from the outset. They evaluated lessons through an interactive pupil questionnaire on the school intranet. Examples of questions were: Does your teacher try to find out what you already know before you're starting a new topic? Does your teacher give the class opportunity to make choices and decisions about the work you're doing?

The school also instituted 'research lessons' in which two teachers plan a lesson together with a specific focus in mind. In one example, three pupils, chosen across a range of ability or approaches to learning, were observed. Later the teachers talked through what went well and what could be refined, and the lesson was repeated with another group.

For Anna the goal was to truly become a learning organisation:

"A learning organisation would be open to change and enthusiastic about reflecting on what it's actually doing. It would be outward looking to both ... academic research and also actual practice in other schools. A positive and confident place."

Asked whether this truly described Mulberry, she replied: "I'd say we're well on the way".

Progression: Research lessons supported teachers in developing their pedagogic subject knowledge, and in providing appropriate new learning challenges.

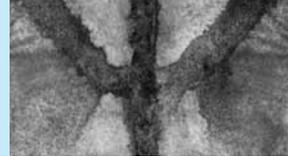
Reflection: The school provided both formal and informal structures and processes to help teachers and children think about their learning.

Development: Pupils were better able to understand, engage with and influence processes of teaching and learning, whilst self and peer assessment helped children to identify new personal goals.

This work is discussed, with further case studies, at: www.gtce.org.uk/teachers/rft/afl_strats0507. Linked TLRP work on lesson study is described at: www.teachingexpertise.com/articles/the-lesson-study-model-of-classroom-enquiry-2950.

For more information on TLRP's Learning How to Learn project, see: www.tlrp.org/proj/phase11/phase2f.html or James, M. et al (2007) *Improving Learning How to Learn: Classrooms, Schools and Networks* (London, Routledge)





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8. Outcomes for continuing learning			
Does the educational experience lead to development in knowledge, concepts, skills and attitudes?	Progression: does the curriculum-as-delivered provide an appropriate sequence and depth of learning experiences?	Reflection: is classroom practice based on incremental, evidence-informed and collaborative improvement strategies?	Development: does formative feedback and support enable learners to achieve personal learning goals?

8. Outcomes for continuing learning

Education is always, in a sense, about the tension between ‘what is’ and ‘what might be’. The role of the teacher is to support learners in moving forward to higher and higher levels of attainment.

Ensuring progression in the educational experiences provided for pupils is therefore vital. Only through new challenges can they deepen and broaden their knowledge. However, the ultimate educational goal is to support the development of self-motivated and resilient learners who are not only knowledgeable but capable of taking control of their own learning. Through encouragement to achieve personal learning goals at school, we sow the seeds of commitment to lifelong learning.

Reflective processes provide ways of marrying such ambitions, of reconciling what is and what might be. They enable teachers to monitor their own performance, both reflexively and in collaboration with others, and thus to stimulate their own continuing professional development.

Progression	<p>Teaching which consistently achieves cumulative progression for learners requires high levels of subject knowledge, three components of which were identified by Schulman (1986).</p> <p>‘Content knowledge’ is fundamental. Teachers in full command of the raw material of their subject are better able to support, extend and deepen the learning of their pupils.</p> <p>However, teachers must also understand how to use such knowledge in their teaching. Such ‘pedagogical content knowledge’ enables expert teachers to connect the subject to the learner. The teacher understands the best way of explaining key points, of framing particular tasks, of using examples for their subject. One TLRP project studied ways of teaching secondary science (Millar et al, 2006). Another investigated ‘threshold concepts’ – big ideas without which further understanding in a field is blocked (Land et al, 2006).</p> <p>The third and final form of subject expertise is ‘curricular knowledge’. This concerns understanding the way subject material is ordered, structured and assessed by national requirements, institutional policies or other circumstances.</p>
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Reflection	<p>This concept represents a commitment to continuing and principled professional improvement. Reflective practice is based on open-minded enquiry and a willingness to use evidence to challenge one's own provision. This might be based on external evidence of school or pupil performance, on reading research findings, on small-scale personal enquiries or observations, on discussions or collaborative activities with colleagues. There are many possibilities but, in all cases, evidence is used to generate re-appraisal. In this way, taken-for-granted thinking is challenged and professional judgement is refined. Working with colleagues in a department, school or network provides additional support and professional enrichment.</p> <p>Reflective enquiry may be focused on particular problems or issues and is best carried out in systematic ways and for specific purposes. Understanding then becomes embedded in teacher expertise and enables decision-making at other times. Reflective teaching is supported in a comprehensive handbook (Pollard, 2008), collection of readings (Pollard, 2002) and a website (www.RTweb.info) incorporating many TLRP findings.</p>
Development	<p>Physical, cognitive, social and emotional development all influence and are influenced by educational experiences. This, we know, is an enduring process (see for instance, Blyth, 1984). Resilient and resourceful learners develop when teaching combines appropriate challenge and support – 'building learning power', as Claxton puts it (2002).</p> <p>Assessment for Learning aims to involve pupils in their own assessment so that they can reflect on where they are, where they need to go next and how to get there (Assessment Reform Group, 2002). This requires an understanding of desired outcomes and of appropriate processes of learning, as well as the opportunity and commitment to act on such knowledge. Such self-regulated approaches to learning can be nurtured by encouraging students to set personal learning goals and by providing supportive feedback. Long-term developmental outcomes concern pupils' beliefs in themselves as learners, their skills in diagnosing learning challenges and their capacity for personal development in the future.</p>

9. Outcomes for certification and the life-course

Does the educational experience equip learners for adult and working life and for an unknown future?

'Here's the keys, you're free now'

Tony Wilf was in his fifties, adjusting to the death of his wife, and had two young teenagers still at home. He wanted to look after them properly, and thought it would be nice to make home-made fish and chips. "I couldn't remember how to do batter so I asked one of the old ladies next door, and she gave me this book," he told researchers. Tony ended up going to





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the chip shop because he couldn't ask the neighbour, or his children, to read the recipe out to him.

It was 40 years after leaving school that Tony was finally diagnosed with dyslexia. In fact, this came about because he was trying to help his daughter, Clare, with her own literacy.

Clare was more fortunate in her schooling than Tony had been. "I was told time and time again by teachers, 'you're thick, you don't understand'. If somebody had said, 'right, what's the problem?' ...that would have been fine."

Tony worked as an unskilled labourer for most of his life, and enjoyed learning from the older craftsmen, but he knew his literacy problems had stopped him from advancing.

It was the need to help his daughter that finally brought him back to education. She had trouble with her handwriting, so Tony wanted to get a computer to print out her work. "So I went to 'Computers for the Terrified'. And it worked. I got into it, I really enjoyed that, and then something came up about 'insert so and so after the third paragraph' and I thought, 'what's a paragraph?' ... so that's why I started coming back to doing the English ..."

Tony's first English class didn't work out because he and the tutor got into arguments about his use of block capitals to write letters. His school experiences had left him unable to deal with not being listened to. Fortunately he tried again, and this time the tutor dealt with students as individuals. The use of coloured overlays designed for dyslexics led to a big improvement in his reading. Apart from improving his basic skills, the courses provided a focus for his life: "what I like about it, you know, everybody works as a group; nobody takes the mickey out of anybody".

Tony became interested in local history and started writing. "It's as though I've been locked away for years and somebody's said, 'well here you go, here's the keys, you're free now'," he said.

Effectiveness: With sensitive and resourceful teachers, even people who have had bad experiences of formal school can enjoy learning, gain new skills and contribute to society.

Empowerment: Supportive adult education opened new horizons for Tony, releasing his innate talents and interests.

Consequence: Tony gained a personal computing certificate and hopes to gain an English GCSE, but his confidence came from success in his own terms.

Tony's case is adapted from, Hodkinson, P., et al. (2007) 'Learning as Being', Working Paper 6, Learning Lives Project, TLRP. It is available, with much more, from: www.tlrp.org/proj/phase111/biesta.htm. An accessible book of the project is: Biesta, G., Field, J., Goodson, I., Hodkinson, P. and Macleod, F. (2010) *Improving Learning Through the Lifecourse* (London, Routledge). A comprehensive case for lifelong learning has been made by Schuller, T. and Watson, D. (2009) *Learning Through Life* (Leicester, NIACE).



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9. Outcomes for certification and the life-course			
Does the educational experience equip learners for adult and working life, and for an unknown future?	Effectiveness: are there improvements in standards, in both basic skills and other areas of curricular attainment, to satisfy society's educational goals?	Empowerment: is the pedagogic repertoire successful in enhancing wellbeing, learning disposition, capabilities and agency?	Consequence: do assessment outcomes lead towards recognised qualifications and a confident sense of personal identity?

What outcomes do we want from education?

We certainly need people who can contribute effectively in economic terms within the labour market. We also need citizens with social and global awareness in response to growing cultural diversity and the ecological challenge. We need those who will become good parents and contribute to their communities and civil society. And then there is the need for future technologists, and the arts, and so on, and so on.

Whilst there is relative continuity in general priorities, specific needs and circumstances do change over time. From this perspective, outcomes such as having self-confidence and a positive learning disposition relate to 'agency' – the intrinsic, personal capacity to adapt to circumstances throughout the lifecourse.

Examinations are the traditional way of certifying capabilities in relation to summative attainment in mainstream school subjects. However, more innovative forms of assessment, such as portfolios, may be more appropriate in representing more developmental achievements.

Effectiveness	<p>School performance is a major public issue and will always be a concern of parents, governors, local authorities, media and politicians. And the moral commitment of teachers to learners also calls for active monitoring of outcomes. Such reviews of performance provide a valuable focus for systematic reflective and collaborative enquiry.</p> <p>Inspection of schools is managed in different ways in each nation of the UK, but there appears to be an increasing focus on the quality of teaching and learning itself and, of course, on pupil outcomes. Significantly, the professional judgement of inspectors has the potential to tackle issues which numeric data cannot reach. Where measures are collected, contextualised value-added analyses have not always supplanted the crude aggregations on which league tables of school performance are founded. For monitoring the performance of school systems as a whole, the most common strategy internationally is to sample performance in key subject areas, as is done in the OECD's PISA study.</p>
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Empowerment	<p>TLRP researched learning at many stages of life and found that agency and self-belief were crucial at every age and in nursery, school, college, workplace, family and home settings (see: www.tlrp.org/projects). Indeed, the first of TLRP's Ten Principles states that: 'Learning should aim to help people to develop the intellectual, personal and social resources that will enable them to participate as active citizens and workers and to flourish as individuals in a diverse and changing society'. So empowerment is the very stuff of 'education' in its broadest sense. But what does this mean in the classroom?</p> <p>Dweck (2000) contrasted pupils with a 'mastery' orientation from those who develop 'learned helplessness' in school. The conditions and experiences of classroom life contribute to such self-beliefs. By creating opportunities for learners to take independent action and experience success, teachers support the development of self-confidence and positive learning dispositions (see www.gtce.org.uk/teachers/rft/challenge1007).</p>
Consequence	<p>At the end of the day, teachers need to consider whether or not they have been able to enrich the lives of the learners in their care and increased learners' life chances.</p> <p>Are they better able to acquire the qualifications they will one day need to enter the labour market? We need to be sure that new knowledge, understanding and skills are secure. In national curriculum terms, pupils may have moved through various levels of attainment – but we may also be able to detect and celebrate other achievements. It is crucial, of course, that all students acquire good basic skills before they leave school.</p> <p>Have they developed more self-confidence and a stronger sense of personal identity? Education has sometimes been characterised as the process of 'becoming' a person, and it is certainly important to affirm the role of teachers in facilitating the emergence of confident individuals and future citizens (see TLRP's Learning Lives project: Biesta et al, 2010).</p>

Using the framework to inform professional debate

How can the conceptual framework support teachers in their professional lives?

How can it support school development strategies?

The conceptual framework holds together, on one page, the ethical and professional issues that teachers face on a day-to-day basis. It is offered as a tool – which can be contested, debated and developed – to support teachers in the reflective aspect of their role. It is a reference point for the big questions that underpin teachers' thinking when they make judgements about how to take children's learning forward.

On the surface, the concepts and questions which make up the framework may seem



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quite straightforward, axiomatic even, but if you dig deeper it can identify areas which may need development. For example, it asks, 'do the school and its staff set and sustain high expectations?' Which school would answer 'no'? But when thinking about how these high expectations are communicated with pupils and others, both formally and informally, a school needs to ask many other questions. These help them examine practice to ensure that those high expectations are really lived throughout the school.

Here are three ways in which teachers have used the framework so far:

Supporting curriculum development

Danecourt School in Medway is redeveloping its approach to the foundation stage subjects to make them more relevant and accessible to the children.

The staff team are using the conceptual framework to assess and evaluate the content, approach and effectiveness of their new ideas. They believe that teachers need to feel ownership of such concepts, and keep them in mind when planning. The pedagogic concepts ensure that the provision does what it sets out to do and they link closely with the priorities of the new Ofsted framework, the Self Evaluation Form and the Every Child Matters agenda.

"I feel the concepts in the framework reflect the important elements of a 21st century school curriculum. For me it asks the questions of why and how we are teaching rather than what - and it offers a structure to think about our provision. Pedagogy, it seems, has for some years not been as important a discussion topic as SATs and results, but I think that effective pedagogy needs to be our principal concern."

John Somers, head teacher, Danecourt school, Medway

This approach could be extended to whole staff groups when discussing the school's values, vision and mission statement. It could offer a way of developing shared understandings and approaches for coherence in practice across the school.

Using narrative to understand teaching and learning

To start a discussion about effective teaching, Piper Hill, a special school, decided to use narrative as a technique to get teachers talking. Everyone was asked to write about a successful lesson, describing and analysing it to say what made it work. This proved an energising and enjoyable starting point, allowing detailed reflection but with room for some creative telling!

Having shared their stories, the staff considered their practice in the light of the framework. How far were the concepts and questions reflected in their planning and experiences? What changes would there have been if certain questions had been asked before planning the lesson? The stories of practice were then made into a booklet for all staff.

"The framework offers a way of looking at our practice with a discerning eye, and to really discuss what we're doing. It reveals gaps and collectively we can develop the solutions."

Wendy Godfrey, Deputy Head, Piper Hill school, Manchester





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A similar approach was used in a large secondary school with members of the Creative and Performing Arts Faculty.

Having shared written accounts of successful lessons, this group used the framework to discuss the concepts and questions in relation to their practice. What became apparent to the team was the depth of conversation it created, with such questions as, 'what do we mean by core educational values and objectives?' And, 'are these core educational values and objectives shared by all members of the profession?'

There was also a discussion about whether the conceptual framework implicitly promoted established teaching strategies, and was in danger of discouraging teachers from experimenting or innovating. However, as it refers to *principles* rather than *practice*, this danger is minimised. Colleagues felt that it was useful to reflect upon good lessons. Normally, they were much more likely to focus on less successful ones. And they felt it was helpful to share these good lessons within and beyond subject teams.

"The framework provided a basis for us all to re-evaluate our practice, and to look at elements of teaching. If it is to be useful to all, it needs us to exemplify the framework with examples from across subjects, something we are looking at doing."

Steven Maxson, Assistant Head Teacher at FTC Performing Arts, Maths and Computing College, North Lincs

A third school used the conceptual framework to reflect on practice as part of its induction programme for teachers new to the profession from the different routes of PGCE, the Graduate Teacher Programme and the Overseas Teacher Training Programme.

"The exercise generated an interesting discussion. It was an intellectually challenging exercise. The session lasted for 45 minutes and in that time we were able to explore the framework, apply it and discuss it. I think the evidence shows that the framework created a useful basis for discussion of teaching and learning."

Mark Potts, CPD Leader, Salisbury High School, Wilts

Creating school improvement groups structured on the conceptual framework

St Joan of Arc Catholic School in Hertfordshire built the framework into its work on whole school improvement. School improvement groups were established for curriculum, pedagogy and assessment – Joan of Arc's strategic development areas. Teachers opted to attend a group and develop ideas on behalf of the whole school. All were self-governing; teachers agreed their own agendas and areas of focus, and then identified strategies which would lead to whole school change and development.

Within the Pedagogy team, the conceptual framework was first introduced and discussed at its Teaching and Learning focus group, which comprised the core subjects and the school's specialist subjects of science, maths and computing. Subject leaders in the group had individual learning conversations with other middle leaders to ensure high quality debate and understanding of the framework. This conversation was replicated with staff in department meetings.



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This model of working offered the opportunity for each group to debate the concepts and the questions in the framework to examine current practice, identify development needs and come up with creative solutions for implementing change and leading school improvement.

The framework was used as the foundation to restructure and reconnect teachers with the enduring questions asked as part of any educational process in any learning environment.

“We wanted to develop a model of distributed leadership linked to our school improvement priorities, involving the whole staff. We needed a secure foundation on which to scaffold our school improvement work. The conceptual framework provided it.”

Paul Kassapian, Deputy Head, St Joan of Arc Catholic School, Hertfordshire

Ambitions for the future

These are some of the ambitions expressed by teachers who have used the conceptual framework:

“I’d like to see familiarity with the framework throughout the profession and a growing pride amongst teachers of our professionalism.”

“Teaching and learning being discussed in national media – and pedagogy as the key focus for Ofsted.”

“The framework should be part of a school’s vision.”

“A more formidable staff which, independently, will develop professionally and not tolerate fads.”

“Teachers using the framework to test out and challenge practice and improve learning – developing a *real* shared language about teaching.”

Conclusion

The aim of this commentary has been to offer ideas to stimulate discussion about pedagogy and professionalism in school teaching. This heralds the start of what we hope will be a long-running conversation, in which many voices will be heard in the evolution of more collaborative, sustainable and explicit professional understandings about pedagogy.

Specifically, the commentary has presented a conceptual framework which holistically represents the major dimensions of teacher expertise. Such holism is itself important, because it demonstrates why teaching is both so fascinating and so difficult – a point which is often overlooked in public discussion of teaching.

The framework itself is organised around nine enduring issues concerning educational aims, learning contexts, classroom processes and learning outcomes. Each issue is explored in relation to curriculum, pedagogy and assessment and the commentary provides both a case-study illustration and a brief introduction to some of the research which underpins each concept.





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The GTCE and TLRP believe there is a particular opportunity at the present time for the profession to reflect on, share and develop their expertise on teaching and learning. Indeed, a constructive response to this challenge is seen as being central to achieving sustainable improvements in outcomes for learners.

This commentary was generated from the unprecedented programme of research which the Teaching and Learning Research Programme created and synthesised - in particular, from its *Ten Principles for Effective Teaching and Learning*. The principles have also been used to generate discussions with the education community and its stakeholders and to raise issues about the status of pedagogy in reflective practice and professional development.

Principles, concepts and expertise may be the bedrock of pedagogic quality, but we cannot ignore the structural constraints which many communities, families and children experience and to which their teachers and schools must respond. There is, for instance, still a great deal of poverty and inequality within the UK. Having celebrated the strength and potential of teacher expertise, such challenges must also be acknowledged.

In our complex and rapidly changing world, teachers' moral commitment and professional resilience remain as important as ever.

This commentary was supplied by Professor Pollard to the editors of the Annual Report. His address to the 2009 SCOTENS conference was based on this earlier commentary.



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DEVELOPING ENQUIRY AND REFLECTION IN TEACHER EDUCATION: CHALLENGES AND SOLUTIONS

**Professor Jean Murray,
Professor of Education, University of East London**

Many years ago W. B. Yeats proclaimed that 'education should be not filling a bucket but lighting a fire'. This is the fundamental principle which has guided my teaching over the last thirty years, first in schools with children, then in teacher education with novice and experienced teachers, and now in research capacity building with teacher educators who are aspiring or fast developing researchers. The focus of this address is on the last of these groups of learners, that is, teacher educators working within Higher Education Institutions to develop their research activities. I am following Boyer's (1997) definition here in using 'research' as a term which signals discovery and the production of new knowledge about the world of education, but I am also presuming that research activity across this occupational group is underpinned by enquiry and reflection, and by scholarship. In other words, enquiry, reflection, scholarship and research are seen here as part of a panoply of activities in which professionals engage in differentiated ways as part of their practice as teachers or academics.

In my view all types and levels of teacher education need to be centred around these activities and the insights they give about learning and teaching in schools and Higher Education. I see different forms of enquiry, reflection, scholarship and research as at the heart of all creative professional practice, not least as a guard against the ways in which, adapting the words of Rudduck (1986:110), habit can encroach too far on practice, eroding curiosity and preventing the possibility of experiment and creativity. Certainly, I would assert that research has a fundamental place in teacher education, despite the fact that current government policies for pre-service teacher education in England and policies for research selectivity in the UK university sector often seem to be in tension with the development of research-informed practices in that field.

This address describes one initiative which attempted to reassert the importance of research in teacher education with the aims of strengthening teacher education communities, enhancing the quality of new knowledge generated within them and, ultimately, increasing the overall quality of student learning. The initiative in question is the Teacher Education Research Network (TERN), originally an ESRC funded pilot project for research capacity building. In this address, following a brief outline of the project, the findings of the evaluations of the first successful year are used to explore issues about the organisational conditions and pedagogical structures which promote learning about enquiry, reflection, scholarship and research for educators. In order to forge these arguments I first draw on an analysis of the contextual factors affecting research in and on teacher education. This is very much a personal reflection on the implications of the project, from my perspectives as the Principal Investigator (PI), and should not be taken as indicative of the opinions of the leadership team as a whole.

Research on and in teacher education

Teacher education research is an important field within the broad area of educational research, but Ken Zeichner, writing from a North American context, defines it as a 'young'





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field, under-developed, informed by many different disciplines and subject to rapid policy changes (Zeichner, 1999, cited in Cochran-Smith and Zeichner, 2006:755). This sense of teacher education research as under-developed and buffeted by frequent policy changes certainly holds true for most of the UK, where an additional factor is that much teacher education research is conducted by those who are practitioners in the field, as teacher educators (Menter et al, 2010). Thinking about research capacity building in this area therefore needs to involve a consideration of research *on* teacher education as well as research in teacher education.

The importance of adopting this dual emphasis, when considering research capacity building in the field, is reiterated by analyses of the nature of teacher education research. The TEG resource, conducted under the aegis of the TLRP and sponsored by the TLRP, BERA, ESCalate and UCET, maps all the research on teacher education in the UK context published between 2000 and 2008 in 49 key journals (see www.tlrp.org/teg). Analysis of the contents of the mapping (Menter et al, 2010) suggests that research on teacher education across the UK is predominantly small-scale, qualitative and often practice-oriented, pragmatic and/or developmental. There are few large-scale and / or longitudinal studies and little indication that the 'evidence-based education' movement has had a strong impact on research in this field. Nor, as Menter et al (2010, pp. 243) comment, is "the endorsement of 'scientifically-based research' techniques", evident in teacher education research in the USA, found in this mapping, where only two studies are classified as 'quasi-experimental'. The mapping shows that a considerable portion of the research does not invoke theory, either in the methods used, in the analysis of findings or in the exploration of significance. There is a high number of authors publishing only one study, indicating a possible lack of continuity and coherence in the development of the field.

I would stress that this summary of the findings of the TEG analysis is not meant to devalue the importance of small-scale, qualitative research nor of research which springs from higher education practice and is conducted by teacher educators as practitioners. These forms of research are valuable and have a great deal to contribute to the field, particularly in terms of research capacity building and strengthening practice in teacher education. But the restrictive nature of much of the research included in the mapping undoubtedly reduces the potential cumulative and developmental impact of research on the broad field of teacher education in the UK, as well as having implications for its individual researchers and the institutions within which they work.

A second factor to consider in relation to teacher education research is the impact of the research audits, known until recently as Research Assessment Exercises (RAEs). Between 1992 and 2001 successive RAEs and their associated funding regimes enabled the creation of small but thriving research cultures in the post-1992 sector, the ex-polytechnics and Institutes of Higher Education which became the 'new' universities and university colleges where the majority of teacher education provision was – and continues to be - located. The RAE of 2001 indicated growing strengths in teacher education and school-focused research in this sector.

However the funding regime implemented after this exercise withdrew most of the core research (QR funding) and resulted in growing differentiation in England between the small number of Schools of Education allocated substantial levels of funding and the large number of Schools with very limited or no funding for research activities. Most of the universities



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which retained funding in England were in the pre-1992 sector, with only one university in the post-1992 sector retaining any core funding support for its research. The majority of teacher educators working in universities therefore had no access to funding to support their research. One serious consequence of this was that 80% of pre-service students in England were being educated in institutions with no core research funding (Dadds & Kynch, 2003).

Bassey (1999, quoted in Dadds and Kynch, 2003:8) predicted that this withdrawal of funding from many of these institutions would result in the wiping out of "small research communities who have seen the vision of research". For a number of universities, including many of those engaged in practitioner research in teacher education, Bassey's prediction, sadly, proved to be at least partially true. It was therefore not surprising to read the Education Panel's comment (HERO, 2008) that teacher education research was less well represented than in 2001, even though the overall quality and spread of education research in general had increased.

The results of the 2008 RAE did show that, in addition to the research strengths of the 'old' or 'established' universities, there were islands of research excellence in the post-1992 universities. But Furlong (2009) estimates that 25% of the universities offering pre-service courses in England did not enter the RAE 2008 at all, and well over a half of the academics working in Schools of Education (most of whom are employed as teacher educators) which did enter, were not 'returned' as active researchers. Even after acknowledging the complexity of factors which might inhibit an institution or an individual from entering the RAE in 2008, these figures indicate that research capacity building to increase the volume and quality of research activity in teacher education has a largely unrealised contribution to make to the broad field of education research.

A further factor in analysing teacher education research is that teacher educators face a multiplicity of demands in their daily work. They are required to have the professional credibility within the fields of schooling and teacher education to be involved in the day to day work of teaching pre-service students and serving teachers, but they are also often required to be - or to become - research active in order to meet university imperatives (involving 'compliance' to research audit regimes). Managing HE quality assurance mechanisms and the regulatory frameworks for teacher education adds further complexity to the work of many teacher educators. These demands, the manifestations of complex and conflicting discourses and practices within teacher education, will be only too familiar to those involved in the field.

That these complexities often affect the ways in which teacher educators are able to engage in research is well known (Furlong, 2007; Maguire, 2000; Sikes, 2006). As professionals entering university teaching as their second (or sometimes even third) career, teacher educators rarely have doctorates or sustained experience of engaging in models of research, other than practitioner enquiry, prior to starting HE work. As newcomers to teacher education they often experience the feeling of 'experts becoming novices' (Murray, 2005), particularly in terms of becoming involved in research. This situation is not helped by the variable quality of induction provision (to support learning about research, teaching and academic service) across the many institutions which provide teacher education in the UK (Murray, 2008), the increasing bifurcation of research and teaching roles in some universities (Gilroy & McNamara, 2009), and the varying dispositions and senses of agency which teacher





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educators undoubtedly have to engage with in research as the production of new knowledge.

The Teacher Education Research Network: capacity building in teacher education

As indicated above, TERN was initially a one year pilot project, funded by the ESRC as part of its UK-wide focus on research-capacity building in education and involving all seven of the universities in the North West of England which provide pre-service teacher education for the school sector. The project aimed to build research-capacity in and on teacher education, drawing on the rationales outlined in the last section. The model of professional learning deployed for the project was based primarily on an 'embedded social practices' principle (Baron, 2005:2) for developing research-capacity. The intention at the design stage was to embed the project in the field of teacher education and its research, thereby aiming to avoid the abstraction of 'research methods from the theoretical and philosophical traditions within which they are located, (*and*) from the social context of actual research practice.' (Rees et al, 2007: 765). At the time of writing the project is continuing into a second, successful year with funding from the participating universities. That second year of activity has not yet been evaluated, so this article focuses on the first year of the project, drawing on the formal evaluations for the ESRC (Gardner, 2009; Murray et al, 2009).

The project's ambitious objectives included: fostering institutional regional networking to ensure collaboration between research-intensive and teaching-intensive universities; contributing to building institutional research capacity in the participating universities; and providing a research development programme to enhance existing regional provision. At the heart of the project, however, was the aim to promote individual research development; adapting Yeats' words above, to light, fan or re-ignite the fire of research engagement for each of the 44 individuals who participated as research fellows. Each of these individuals was nominated by the universities as a motivated early career researcher who had the potential, not only for individual development, but also to inspire research capacity building with colleagues back in the home institution.

We also hoped that there would be distinct benefits for the 10 senior researchers who volunteered to participate in the project as research mentors, through their roles in facilitating the professional learning of each of the eight small research groups formed. The project also benefitted from the contributions of seven institutional research leaders, one from each university, who sat on the Steering Group and co-ordinated the project within their institutions.

The project was structured around five workshops held across a seven month period. Each event included an explicit research training element (often a presentation by senior researchers or 'expert voices' in the field of teacher education research) and subsequent discussions, together with time for the research groups to work together. The research training input for each workshop was determined by the results of an initial audit of all participants, identifying their research stages, their aspirations for involvement in the project, their existing areas of expertise and interest, and the areas of research knowledge which they wished to develop. The formation of the cross institutional research groups, the sites of the richest learning across the project as a whole, was also negotiated and created by drawing on the results of the audit. Each group had a brief to create a viable research bid to go forward for external funding by the end of the project, but it was clearly agreed by all



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participants and their mentors that the generation of rich learning processes, en route to this end product, should be the main focus of group work.

In an attempt to create a form of blended learning, the face-to-face meetings were augmented by the provision of Virtual Research Environments (VREs) for collaboration in the intervening periods. In order to ensure generativity, the project also aimed to draw on previous investments in educational research, including methodological resources, relevant studies on teacher education and workplace learning from the TLRP (www.trlp.org), and the TEG mapping of research on teacher education in the UK between 2000 and 2008 (www.trlp.org/teg).

The findings of the TERN project

The first year of the project was evaluated externally by Professor John Gardner (Gardner, 2009) and internally by the project team (Murray et al, 2009). Both evaluations drew on datasets which included the initial audit and an 'exit' questionnaire, evaluations of the face-to-face events, project documents and interviews with participants. Professor Gardner commented that the overall perception of the TERN project in its first year was 'one of an active community of researchers successfully practising the principles of supportive interaction, collaboration and participation in the shared enterprise of building research capacity' (Gardner 2009: 16).

The TERN project was a fast paced project, with the research development programme taking place across only seven months. There was initial concern about whether or not this very short timeframe would allow space and time for the rich professional learning opportunities which we hoped to achieve for all the research fellows; in particular, there were questions about whether or not processes of reflection and critical enquiry could be generated. These fears proved to be groundless for the majority of the participants. The research fellows' "overwhelmingly positive perception of the personal impact of TERN" (Gardner 2009: 2) was clear. 91% of research fellows stated that they had acquired research knowledge, understanding and / or skills in relation to 'methodology', 'methods', 'research design', 'theoretical frameworks' and 'bid writing, costings and funding opportunities'. 84% of fellows expressed a wish to be involved in the second year of the project.

The elements of the programme that were identified by the research fellows as particularly valuable were: the face-to-face events, which, as the external evaluator identified "quickly became the central focus and driver of the programme" (Gardner, 2009: 16), and provided protected time for research dialogue; the high quality pedagogical inputs provided at these events by senior researchers or expert voices; the opportunities to form various kinds of cross-institutional links and networks; the high levels of intellectual engagement gained through working in the research groups; and, as part of this group work, the one-to-many mentoring support provided by the senior researchers in the groups.

Overall then, the project clearly met its aim to inspire many of the research fellows, but there were, inevitably, distinct variations in the ways in which individuals participated in the project and the benefits which they derived from it. The reasons for this variability are undoubtedly complex and multi-factoral. As a project team, we are currently analysing these variations with a view to understanding the patterns within them and any implications which they might have for other projects focused on supporting the learning of individual researchers. Drawing on the work of Hodkinson and Hodkinson (2004), we are particularly interested in





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the ways in which individual professional biographies, habitus (Bourdieu, 1987) and agency played out in the project.

The VREs within the project were less successful for a variety of reasons, largely beyond the control of the project team, including access problems, the lack of 'readiness' of the system for use by a large numbers of researchers and the limited time available for training. As the project developed, it was apparent that the VREs were not being used as extensively as originally intended. The external evaluator commented that "on balance it has to be said that although there were good points, the VRE was a disappointment to all concerned in the groups' work" (Gardner, 2009:13)

The direct outcomes achieved by each research group were variable, with two groups having submitted bids for external funding by the end of year one of the project, others having bids near to completion, and two groups having effectively 'opted out' of the construction of bids in this limited timeframe. Again, this variability may be attributed to many factors, including the structure and size of the groups (varying in number from five to nine individuals, with different levels of research knowledge and expertise at the start of the project), the chosen focus of work, the group dynamics and the differing patterns of mentoring. The mentoring role was certainly seen by many participants as critical in generating a positive group learning environment in which all research fellows could develop a sense of ownership and belonging. Most of the comments on the mentoring and learning experiences within the groups were positive, indicating perceived high degrees of mentoring skills, particularly in terms of creating group cohesion and facilitating research learning.

Given the very short timeframe within which it operated, the project was judged to have made some contribution to institutional capacity building in the teacher education research cultures of most of the participating universities, with the major contribution being the professional learning of the individual research fellows (Gardner 2009: 16). There was some evidence of broader dissemination of the project within some universities and the embedding of relevant research structures in institutional cultures. Such developments were in addition to the evidence of intra-institutional links and research structures created or enhanced in the majority of the universities, and of enhanced regional networking. But the scope of these broader achievements was inevitably limited by the timescale and reach of a small project.

As stressed above, TERN was a pilot project, designed to test out a model of research-capacity building and its potential to be replicated in others areas of the UK. In the judgement of the external evaluator "TERN has shown that key aspects of the 'social practices' model have been successful in the North West of England region in a manner that suggests they should be successful in others" (Gardner 2009:16).

The implications of the TERN project

This section of the address aims to consider the broader implications of the TERN project for any future capacity building project, built on similar models. As stated above, the project was deliberately structured around the face-to-face events, creating protected spaces and prioritized times, away from normal workplaces, specifically dedicated to the work of the project. At the beginning of the project, the universities had given their support for all research fellows to be released to attend all workshops, wherever possible. When the research fellows attended TERN events, in theory at least, then they were able to leave behind their workplaces with all their multiple demands in order to participate in the project,



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focus only on research and develop their learning and senses of identities as researchers . In the project the cross institutional research groups formed new and alternative micro communities within which research fellows and mentors co-worked as researchers. The evaluation data shows that for all the project's participants participating in the groups meant struggling to establish personal voice and position, to negotiate shared meanings and to construct a mutually acceptable set of values. But in many cases, as previously indicated, the research groups came to provide the richest sites for professional learning and the working contexts for breaking open and contesting the 'taken for granted's' of personal and institutional assumptions about research activities in teacher education.

Ideas from the literature on workplace learning have gained considerable legitimacy in education, particularly through the emphasis placed on situated cognition (Lave & Wenger, 1991) and informal learning (Fuller et al, 2005). In some circumstances this has led to an emphasis on informal learning within the workplace as the dominant, and most valuable, form of professional learning. But this emphasis overlooks the hard fact that not all workplaces are able to provide the environments in which positive learning can take place. Ironic it may be, but conditions of work in 21st century universities do not always create the expansive learning environments (Fuller et al, 2005) in which high quality professional learning for their staff can take place, as we found in a recent study of induction provision for new academics (Murray, 2008). From the findings of the TERN study, we would suggest that more formal learning opportunities, taking place away from the actual workplace but with clear congruence to it, have considerable potential in research capacity building for academics. Crucially, as part of its congruence, such research capacity building provision also needs to ensure that learning is embedded in the relevant field, its research methods and theoretical and philosophical traditions (Rees et al, 2007: 765).

The project programme explicitly focused on the development of research knowledge for individuals, seeing this as a very important in its own right, as well as a means for developing the research strength of the university, the region and the field of teacher education. The focus on individual learning within small, structured groups was clearly welcomed by all the participants, perhaps in part because this type of focused and communal professional learning provision sustained over a period of months is not the norm in or across university Schools of Education. The workplace learning literature has also given credence to the concept of professional learning within communities of practice (Lave and Wenger, 1991; Fuller et al, 2005) and through moving from legitimate peripheral participation in such communities to full participation (Wenger, 1998).

On the TERN project collaborative learning in the research groups, with one-to-many mentoring support, was clearly central to the project's success. We have yet to explore in detail the differentiated processes by which this learning occurred for each group and for the individuals within it. As educationalists, we often pay lip service to the importance of such learning, but as Edwards and Protheroe (2003) state, we still have a limited conceptualisation of how it might occur. I would argue that this limitation is compounded because, even in a professional learning area such as teacher education, we still tend to see learning as fundamentally individual, thus overlooking much of the power of collaborative learning through small group or micro communal structures. Placing more focus on how, when, why and for whom such group learning occurs, is in my view a priority for all educators and researchers.





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The VREs were a disappointing element of the TERN project, as indicated above, in part for technical reasons. But in my view there is clear potential in teacher education for the future use of congruent and effective new technologies for the development, communication and dissemination of research. In particular, other types of e-learning spaces, including a new generation of Virtual Research Environments, blogs, podcasts and communal wikis create multiple opportunities for peer interactions in ways which break down traditional professional and geographical boundaries. Many of these e-learning structures bring with them the potential for accelerated learning in simulated, safe and communal virtual environments, together with new opportunities for the mediation and exchange of professional knowledge, supplementing traditional curricula and enhancing specified 'outcomes'.

Finally, and perhaps most importantly, the project showed the value of collaboration across very different types of universities in order to achieve professional learning for individuals and collaborating institutions, and to the broader benefit of the field. Institutional networking during the project as a whole was driven by a shared recognition across the seven universities of the need to develop research capacity in and on teacher education in the region. Interest in institutional capacity building in teacher education was also high, with the participating universities eager to establish or strengthen their research bases. The individual research fellows were all research aspirant, motivated to develop their own research knowledge and, in many cases, to act as 'change agents' with their colleagues back in the university Schools of Education. This was in many important ways a project driven by shared values and a common sense of mission which led to high regional, institutional and individual valuation of the project from its inception.

Whilst the ESRC 'badging' of the project was important in giving the project status and warranty, the overall achievements of the TERN project came about through the wholehearted collaboration and commitment of the universities and individuals involved. Certainly the commitment of the institutional research leaders, the mentors and the majority of the research fellows was consistently high across the life of the project. The strategic engagement and endorsement of the regional heads of education group was also central to the success of the networking and the institutional research capacity building. A further important factor in fostering networking was the sharing of expertise and resources between the two research-intensive and / or QR-funded universities and the five teaching-intensive universities, which had no research funding at the start of the project. As indicated earlier in this article, the network was therefore able to draw on the extensive expertise of the research-funded institutions, as well as on 'expert voices' from the islands of research excellence within the other universities. The motto of the TERN project in terms of collaboration and the resulting professional learning was definitely that 'together we are more'. And in small but important ways the project made collaboration between individuals and universities into reality rather than the rhetoric which it so often is. But the shared sense of values and mission underpinning the project work would be essential to achieve similar success in future projects.

Conclusion

At the time of writing the TERN project is well into its second year of operation, now funded by the seven participating universities. To date, we have held four more well attended events, using the same structures for the meetings and the work of the research groups. Not all the original participants have been able to continue their engagement in the project as they had planned last summer, often because of the pressure of daily work (Ofsted inspections of



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ITE provision and the start of the Masters in Teaching and Learning in the region have been factors here); new research imperatives (for example, one mentor has become a PI on an ESRC project) or personal reasons (two mentors have retired and one fellow has found the combination of daily work, childcare and the project too overwhelming). But the majority of the original participants are still involved, new research fellows and a strong new mentor have joined the project, and some of last year's fellows are now effectively leading their own research (sub)groups. One group has gained external funding of £66K from a well known charity and is now working on that project; another group has had a symposium accepted at two international refereed conferences. So the network – and the professional learning opportunities it hopes to provide through communal endeavour – continues, albeit in new and shifting form.

At the start of year two we were concerned about the effects which the loss of the ESRC funding and the accompanying 'badging' of TERN as an ESRC project would have on the long term sustainability of the initiative. This is now less of a concern, as long as institutional support for and funding of TERN holds up. But aspects of HE policy, and particularly the current economic situation, threaten the future health of the initiative. In retrospect we now realize that the first year of the project was planned and implemented, not only before the current QR funding situation became clear, but also in a research policy hiatus between the completion of submissions to the RAE 2008 (November 2007) and the announcement of the results (January 2009), and certainly before most of the participating universities planned the details of their strategies for entry into the Research Excellence Framework (the REF, at the time of writing scheduled for 2013).

The economic hard times ahead for universities, alongside the increasing levels of strategic planning for the REF, both pose serious questions about the longer term survival of TERN. The fear is that, facing stringent funding cuts, the seven universities may revert to a traditional model of individual competitiveness, focusing only on the research development needs of their own Schools of Education, and seeing long term support for a collaborative project like TERN as a luxury. But we would argue that, perhaps particularly in hard times, the project's model of collaborative endeavour remains a powerful way to share expertise and to continue to keep the fire of research in teacher education alight to the benefit of individuals, institutions and the field of education research.





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Acknowledgments

My grateful thanks go to Marion Jones, Olwen McNamara and Grant Stanley, my fellow leaders on the TERN project, and to all the participants from the universities in the North West of England who worked so hard to make the network a success in its first year.

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USING TECHNOLOGY IN THE SCHOOL SETTING: OPPORTUNITIES FOR REFLECTIVE PRACTICE

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Introduction

There is a growing awareness in education that information, organisation and human capital have critical links to structural inputs and policy outcomes. The consequence of this is that there are moves away from only measuring resource investments to also measuring processes and outcomes. Schools and school authorities are adopting 'whole organisation approaches' to strategic planning and to the measurement of their achievements, where the value of technologies in schools education includes both 'tangible' as well as 'intangible' IT assets.

Tangible assets are those items that have traditionally been measured and are usually defined as physical assets owned by an organisation or individual, which can be seen or touched. Information technology (IT) tangibles include objects such as computer hardware and technology peripherals. Schools can determine the costs of the purchases of the IT tangibles from their financial records and can map these costs over time. Total Cost of Ownership (TCO) tools can contribute to understandings about tangible assets.

In the business sector, intangible assets are recognised as important for the success or otherwise of an organisation and include 'goodwill', brand names, the capabilities of employees, the readiness of employees to learn new approaches to work, and strategies such as organisational learning. Related to this type of asset are employees' competencies. This case study has been informed by the work of Kaplan & Norton (2004a; 2004b), who categorise intangible assets into *human*, *information* and *organisation* capital.

The objectives of the MVET study were therefore to

1. Investigate how the value of technologies used in teaching and learning can be measured;
2. Identify the role of intangible assets in teaching and learning with technologies;
3. Investigate the relationships between education technologies and intangible assets in schools.

However, underpinning all of this is a deep interest in the pedagogical processes that a purposeful use of technology can call into play and the way that teachers go about learning from their experiences in designing and devising technology-rich learning opportunities for their students.

Ultimately the study will contribute to our knowledge and understanding of the role of technologies in education, teaching and learning and particularly the:

- pedagogical benefits such as fostering information technology (IT) capabilities that can be applied across the range of subjects and content standards; the development of



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higher order thinking skills; and the ability to apply IT capabilities to a range of different problems and contexts;

- information benefits such as the quality, quantity and availability of information and research findings available to those who require it;
- strategic benefits such as creating advantages and gaining alignments between the overall goals in Northern Ireland/Republic of Ireland and the technology goals
- transactional benefits such as those that enable efficiencies in teachers' and students' work;
- transformational benefits associated with achieving positive organisational change, and enabling high quality teaching and learning.

International dimension

This study is part of a major international study involving schools in the USA, Australia, England and Portugal. Two schools on the island of Ireland – one school from Northern Ireland (pseudonym: Northtown High) and one from the Republic of Ireland (pseudonym: Southside College) – gave freely of their time for interviews and other data collection, and provided static data on finance and resource levels relating to the use of technologies in teaching and learning. The accumulated data have been subjected to a novel analysis developed by Professor Kathryn Moyle of the University of Canberra, Australia, and in due course the data from all of the schools across the international grouping will be compared in an attempt to refine the methodology for assessing the cost and benefits of intangible assets in technology usage.

What is discussed here is drawn from the Ireland case schools.

Approach

This investigation has used a case study research method. Case study research involves undertaking an empirical inquiry that investigates a phenomenon within a real-life context and can include both qualitative and quantitative evidence, drawn from multiple sources (Yin, 2003). In this investigation, the case study method has been used as a research strategy to build knowledge and understanding about the value of educational technologies in schools.

Value is contextual: it depends upon the alignment between the value proposed and the strategic approaches used to achieve those propositions. In this case study, investigating the value of educational technologies has involved tracking the value propositions in relation to the value of educational technologies in learning, and identifying the human, organisation and information capital in place to meet those propositions. The data collection and analysis has been premised on the view that the value of intangible and tangible assets comes from how well they align to the strategic priorities of the school.

Data collection and analysis for this case study has involved

- Identifying the value propositions outlined by the school;
- Tracking evidence of the value propositions;
- Examining alignment between the strategies and the value propositions.

The data collected have been analysed to determine any common themes relating to human, organisation and information capital.

We have also sought to observe and unpick some of the usages around technology that we





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feel indicate a strongly reflective turn on the part of the teachers concerned. These relate particularly to enquiry based learning and constructivist opportunities within and around the learning activities involved. This was not a central aspect of the original research plan but it quickly became evident in both settings that it was the measured and well-conceived usage of the school's technology resources that was making the difference - that is, adding value to the experience - rather than the existence of the technology alone or its usage in an unplanned and unconsidered way. The role of teacher reflection in this was what we came to see as the key factor involved.

Sources of data

The following sources of data have informed the development of this case study:

- Documents were collected to provide insights into the school's, the Department of Education's and teachers' plans and aspirations concerning educational technologies;
- Electronic sources were used to provide insights into how the school is incorporating education technologies into its work;
- A staff self-assessment survey of teacher capabilities was used to gain an indication of the knowledge and skills of staff concerning educational technologies;
- Total cost of ownership data was collected to provide insights into the costs of tangible assets;
- Interviews with staff and students were used to gain further data and to assist in the verification processes.
- Focus groups with teaching staff and students within the schools and observational activity in both settings were used.

School profiles

A brief profile of each school is offered here to give some indication of the key similarities and differences of concern and approach involved:

Northtown High

Northtown High School is one of some 20% of post-primary schools in Northern Ireland which have been designated, competitively over the past four years, with specialist school status. The project was conceived under Direct Rule in 2004 as an opportunity to explore the concept of specialist schools, as it existed in England, but tailored to meet the particular needs of Northern Ireland's education system. It was intended that the specialist schools would specialise in different curricular areas including, for example, performing arts, information and communication technology, business and enterprise, science, technology, mathematics, music and languages.

The Department of Education's specialist schools' project was established with the aim that schools would:

- identify and build on their particular curricular strengths;
- by sharing good practice, secure whole school development;
- contribute to the development of good leadership in schools;
- take forward a community dimension, such as with other schools, further education colleges, business and industry, and the wider community.



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School improvement through self-evaluation and the application of aspects of an existing curricular strength as a whole school development process are at the heart of the specialist school concept. The Department's stated intention was that this would help to move schools from an environment characterised by competition to one of co-operation and collaboration.

The core objectives of the project are to:

- provide opportunities for pupils to benefit from wider learning experiences and to ensure maximum impact of the available expertise and resources, by promoting co-operation and collaboration among schools and between schools and other providers of education and training for 14-19 year-olds;
- provide parents with greater choice among a range of schools, which have differing areas of focus;
- raise standards and realise performance improvement for all young people;
- develop links between schools, their local communities and the economy to ensure that all young people are given a strong foundation for lifelong learning and work.

It was envisaged from outset that the range of specialisms selected, including vocational areas, will enable schools to be innovative and to develop strengths that are relevant to the emergent needs of Northern Ireland as well as the needs of the pupils in the local area served by the school. Schools participating received additional resources of £100 per pupil for four years and a once-off capital grant of £100,000.

On 22 April 2009, the Minister for Education announced that all 44 specialist schools would reach the end of their designation in August 2011, and that her intention was to draw on the evidence and experiences from the existing specialist schools to develop a more inclusive model with a sharper focus on:

- raising standards;
- tackling the barriers to learning that too many of our young people face;
- sharing and learning from one another;
- ensuring that the voice of pupils is sought and listened to in schools.

Northtown High School was designated as an ICT specialist school in 2006, but had already gained a deserved reputation for its promotion and uptake of the use of ICT. In recent years a number of prestigious awards reflect the influence of ICT. Most recently these included Becta ICT Mark for Schools 2007, Microsoft Innovative Teacher of the Year Award 2007 (Physics teacher), UK National Training Award for ICT 2007.

It is located in a market town in Country Antrim and is a controlled, grant-aided 11-18 selective grammar school. As a grammar school it had, at the time of the study, an academically selected intake. Of those who enrolled in year 8 over the last three years, 73% obtained grade A and 24% obtained a B grade in the selective transfer procedure. 19% of the staff have been teaching for more than 20 years and 58% for less than 10 years.

By 2030 the students at Northtown High School will be in the main body of the workforce. The aspirations of the leaders within the school is not only to teach students the skills of using particular software programmes, but to prepare students for unknown futures where they can apply their knowledge of technological processes in different contexts.





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Therefore the school offers skills-based courses in text and word-processing, and computer literacy (ECDL¹) and is an accredited Microsoft Academy². Curriculum at the school also focuses upon developing all students' ICT skills across the curriculum, and it offers senior students courses which develop higher-level IT, design and multi-media capabilities such as through the General Certificate of Secondary Education (GCSE) ICT and General Certificate of Education (GCE) Advanced Level courses in ICT, Applied ICT and Moving Image Arts.

The school is focused upon moving students and teachers beyond learning how to 'use' technologies, to supporting students knowing how to apply technologies to solve problems in a variety of contexts.

Northtown High School is investing in the human and physical infrastructures required to achieve their aspirations. The school is implementing the revisions to the Northern Ireland Curriculum which places a strong statutory emphasis on generic skills (including literacy, numeracy, thinking skills, personal capabilities and work-related skills - such as problem solving and group work) infused throughout the curriculum³. The use and application of ICT tools is integral and essential to the exercise and development of many of these skills in contexts promoted across the curriculum.

The school has made, historically, and continues to make a significant difference to the quality of its infrastructure over and above that provided centrally as a core service by the C2k Project, which is charged with providing a core, managed ICT service to all grant-aided schools in Northern Ireland. (www.c2kni.org.uk)

The school has documented plans for change and redevelopment of technologies over a four year period through its Specialist School plan and over the three year cycle of its school development plan, both of which are linked to improving students' achievements. The school uses the Becta Self-Review framework⁴ strategically in order to ensure that quality indicators for ICT have been embedded into all schemes of work. All subject areas set targets, implementation strategies and success criteria for the development of their subject within the Specialist School framework.

Funding for these developments is made available through the resources provided through C2k, from a significant commitment in the school's own delegated budget, together with contributions from the North Eastern Education and Library Board. In addition the school has attracted £588,000 over a four year period as a consequence of the award by government of ICT Specialist School status. This has enabled its investment in some significant enhancements to the online learning services provided centrally by C2k. The school licenses its own learning environment and has invested in the platform to enable it to provide personalised portals for various target groups.

In Northern Ireland a managed ICT services model is used to support teaching and learning with technologies. The past decade has seen a significant investment in school technology infrastructure under the auspices of C2k amounting to a spend of £500 million (\$822.3 million⁵) centrally-funded over 10 years. C2k's centralised approach to private-

1 <http://www.ecdl-courses.co.uk>

2 <http://www.microsoft.com/education/msitacademy/default.aspx>

3 www.ccea.org.uk; www.rewardinglearning.org.uk

4 <http://schools.becta.org.uk/index.php?section=srf>

5 £ \$ Exchange rate 0.67 on 19.05.09



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public partnership brings in private industry to fund the up-front costs of an ICT service in classrooms. Government contracts the service, paying the provider for accountable service delivery over the lifetime of the project – in other words, the delivery and availability of the service to the user at the desktop determines the payment. The industry owns, and is responsible for, the hardware and ensures that a reliable and working service is available to the classroom teacher. In practice, the availability of the network service at any time for any user is consistently high. Technical problems are normally remedied remotely online or within hours by a visiting engineer. As a consequence, project delivery of ICT in Northern Ireland schools lives up to expectations and teacher satisfaction remains high (PwC 2004, PwC 2005)⁶.

The system is refreshed on a regular basis, keeping up to date with technological developments (such as wireless) on a 3 to 5 year cycle. At no cost to themselves, all 1220 grant-aided schools receive, based on student numbers, a core entitlement comprising⁷:

- an infrastructure of 85,000 networked computers (including 20,000 laptops (the equivalent of one per serving teacher) which brings the computer/student ratios to 1:4 in post-primary schools and 1:5 in primary schools;
- access to a wide range of content and services to support the Northern Ireland Curriculum – including 250 centrally-licensed curriculum software titles;
- an integrated suite of services for school administration and management;
- broadband connection of schools' networks into a single wide-area education network and the Internet, connected directly to all of the public libraries in the province, to the UK's higher and further education network (JANET and to HEAnet in the Republic of Ireland) and the National Education Network (NEN) across the UK;
- e-learning tools in an online learning environment service to facilitate the development of online teaching and learning – including online curriculum content and first line support through a central help desk.

Southcity College

Founded in 1984, Southcity College is a co-educational post-primary school under the trusteeship of the Loreto Sisters and the County Vocational Educational Committee.

Southcity College provides the Junior Certificate and Junior Certificate Schools Programme in addition to the Leaving Certificate Syllabus and the Leaving Cert Applied (LCA). The school also offers a post-Leaving Certificate (PLC) course in Computer Applications, leading to a FETAC Level 5 accreditation in Business Studies. In 2008/09 there were 445 registered students in the school supported by 60 teachers and seven Special Needs Assistants. Southcity College has a significant body of traveller and international students, according to the 2006 Department of Education and Science (DES) report (7% in each case). In terms of the student body, classes are banded into three groups according to their abilities, with those in most need of support being placed in small class groups. In senior cycle, an Access to Continuing Education (ACE) programme exists for those students who have been identified as most likely to go on to further education. Under the project, ICT supports are provided to students in First, Second and Third year at Southcity College⁸.

⁶ PwC (2004). C2k Primary Customer Satisfaction Survey, PricewaterhouseCoopers, Belfast. April 2004 <http://www.c2kni.org.uk/news/pwcpp.htm>, PwC (2005). C2k Post-Primary Customer Satisfaction Survey, PricewaterhouseCoopers, Belfast. September 2005 <http://www.c2kni.org.uk/news/publications.htm>

⁷ Current details of the C2k service are available on www.c2kni.org.uk

⁸ Along with 12 students in the Access to Continuing Education (ACE) programme in their final year.





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In addition to participating in the project, Southcity College also provides a suite of complementary programmes and interventions to tackle educational disadvantage and to provide equality of opportunity. For instance, the college has a Home School Community Liaison (HSCL) Coordinator (under the aegis of DEIS, Delivering Equality of Opportunity in Schools). The HSCL programme provides resources for liaison between the school, parents and the community. Moreover, under the HSCL programme, parents and adult members of the community can attend classes during the day.

Attendance and completion are key challenges facing Southcity College⁹. To address this issue the school participates in one of the more than 80 School Completion Programme (SCP) clusters across the State. The co-ordinator post for this programme is shared between several schools in the area. The SCP co-ordinator, the HSCL and the Traveller co-ordinators liaise with school management and class heads, and as part of the SCP cluster, Southcity College provides a number of initiatives such as the Breakfast Café, the Lunch Club and the Friendship Club, and the provision of guitar lessons at lunchtime.

In terms of support for disadvantaged and minority students, Southcity College has a co-ordinator for the Traveller students in the school and avails of a visiting Traveller teacher. Both the co-ordinator and visiting teacher liaise directly with parents. Traveller students have their own room in the school, and access to learning support, a resource teacher and ICT. With regard to minority students, two Southcity College teachers are involved in teaching English as a second language for those students, once grammar and proficiency tests have been undertaken. Moreover, Southcity College also provides additional support for students with potential to go on to 3rd level education. The ACE programme is undertaken in only three schools locally and provides additional support to selected students at the college. The support includes additional revision classes along with financial support for students.

Finally, the recent Whole School Evaluation of Southcity College was very complementary concerning the pastoral care provided. The care team comprises the principal and deputy principal, guidance personnel, the HSCL officer, the teen counsellor, the local area Youth Service worker, an art therapist, the SCP co-ordinator and the school chaplain.

The care team has been in place since 2001 and its aims are as follows:

- To ensure students are supported in and outside school
- To ensure an integrated and co-ordinated service
- To support all staff involved in the delivery of care

The overall tone of the Whole School Evaluation of Southcity College was extremely positive. In its summary of findings regarding the school, it is noted in particular the *“caring and inclusive ethos that characterises the school”*, the *“dedicated and generous teaching staff”* and *“the students’ affection for and loyalty to Southcity College”*.

The Southcity College Project is an innovative and challenging schools’ ICT initiative. It is in fact unique in a number of ways and so it is helpful to place the project against the context

⁹ Whole School Evaluation: Report Issued for School Response, Department of Education and Science, 2006



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of ICT in education policy in the Republic of Ireland. The importance of developing ICT in education has been recognised by government for almost 40 years, but the first formal policy initiative on ICT in education – Schools IT 2000 – was only developed in 1997. However, even since then planned provision as set out in public policy has been patchy. Current and capital expenditure under successive National Development Plans is approaching €200m but no agreed national strategy or policy base underpins this investment. Consequently, the reality of ICT in education within individual schools is one of variable utilisation that can depend upon accidents of interest among teachers and other staff with an enthusiasm for ICT, and on geographical location.

While there are other several potentially significant education ICT initiatives in southern Ireland (e.g. the Alexandra College Laptop Initiative, and the Microsoft School of the Future, Dunshaughlin) there are none directly comparable to the Southcity College project – either in terms of scale of investment or underscoring vision. A defining difference is that these projects are school-specific and to an extent school-bound. The Southcity College project in contrast is essentially one strand of a broader local redevelopment initiative; a widely-cast, social and economic intervention funded by a forward-looking County Council.

The overarching vision of this broader social initiative within which the Southcity College project is set is to create a platform for improving quality of life and access to opportunities for the local community through a series of diverse and complementary interventions which include the Southcity College project. These interventions are grounded in a *pro-social* philosophy which seeks to target the root causes of anti-social behaviour and community disengagement by means of an innovative, technology-centred approach. They focus on meaningfully working technology into the activities of youth groups, local voluntary agencies, access to local government services (e-government) and education provision within a single County Council area.

The initiative seeks to harness the power of the local community through a virtual model of participation and engagement in order to improve quality of life in the area across a variety of spheres. These include improved educational participation and attainment in addition to the realisation of safer communities and the delivery of enhanced economic competitiveness. Ultimately, the initiative is intended to enable the community to move up the economic value chain and to attract investment from the industries of the future. The Southcity College project seeks to contribute to this vision by reaching out to disengaged citizens including students and their families. It has done this by providing technologies and supports to the college not available to any other school throughout the State. In doing so, the project provides on-demand access to hardware and software – including laptops, data projectors and advanced learning tools – to the students and teachers of Southcity College.

In rolling out the Southcity College project, the local County Council has taken the lead in implementing an innovative and pro-social measure within a learning environment. Whilst the project could not have been realised without the commitment of a number of project partners and the enthusiasm and willingness of both school management and teaching staff to embrace new ideas and give pro-actively of their time and energy, it is important to recognise that the County Council has played a lead role in catalysing the Southcity College project and has done so in a way which goes beyond the traditional role of the local authority sector in this jurisdiction. Without the multi-agency approach that the council has been able to marshal, it is extremely unlikely that the initiative would have advanced as far as it has.





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Indeed, the approach taken is seen to represent an important step-up in meeting the need for innovative and pro-social public policy interventions articulated by the National Economic and Social Council's *Developmental Welfare State* report, and as such, it can be said that the County Council and its Project Partners have sought to initiate the mainstreaming of what NESC referred to as an 'Activist Measure' – that is, the deliberative, focused introduction throughout the council's administrative area of systemically supported interventions that seek to engage the causes of social alienation and disengagement. This is referred to as pro-social action.

Consequently, the Southcity College project is a unique articulation of leadership for ICT – combining vision at a societal level with an inter-agency approach to articulating and funding an education-led pro-social intervention, which resulted in a significant investment in hardware and software provision and an equally significant commitment to the training and development of both staff and students in Southcity College. Moreover, the project has ensured that Southcity College is uniquely funded and supported nationally. This presents both opportunities and challenges for teachers, students and the wider school community alike.

Many of the anticipated benefits forecast by the project partners for the Southcity College project have been realised over the past four years (i.e. improved attendance, increased engagement, staff retention etc), though it is likely that that these cannot be attributed to the Southcity College project alone. Rather, many of the other interventions locally and other education programmes operating at the school will have contributed also to these outcomes. Nevertheless, it is clear that the marked improvement in student engagement and attendance brought about by the Southcity College project appears to have contributed to further positive impacts upon the broader local community. There is also some optimistic academic commentary emerging around the project. The initiative has been positively remarked upon by the Department of Education and Science Inspectorate with both a *Whole School Evaluation* and a *Subject Evaluation for Mathematics* praising the positive impact of the initiative particularly in terms of school and subject development planning.

In brief, the Southcity College model represents a novel, pro-social, education intervention which seeks to meet the emergent learning needs of students in the 21st Century and is directly focussed on activities and outcomes that are seen to support these. The approach adopted sits well with certain key ideas from *Investing Effectively in Information and Communications Technology in Schools 2008-2013*, the recent report of the Minister's ICT Strategy Group. This recommended frontloading investment in the areas of ICT equipment, adequate broadband, technical support services and innovative pedagogical activity. It also reflects the first – and to date only – major engagement with the principles of pro-social activism advocated in the National Economic and Social Council's (Ireland) *Developmental Welfare State* report.

Main Findings

The outcomes of the study rely for full elaboration on an extensive set of graphs and figures from quantitative analysis, which will be set out in the main report and subsequent journal articles. However, for the purposes of this conference report, they may be represented briefly as follows (note that these represent the combination of findings from both schools, and therefore may not be common to both or may not be manifested to identical levels of benefit in each).



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Human Capital

- There is a strong focus on the pedagogic use of ICT to improve learning.
- There is evidence of effective leadership of the strategic development of ICT across the school and the alignment of investment to learning outcomes.
- Strategic benefits are underpinned by the development of staff capabilities and knowledge, skills and capabilities, and a high level of use of technologies.
- There are useful frameworks for subject departments to build on and extend their known strengths.

Organisation Capital

- ICT is an area of clear curricular strength, which has good levels of attainment.
- Pedagogic benefits are underpinned by an effective and evolving culture of monitoring and self-evaluation through an exemplary action plan, based on recognised ICT research and inspection findings, with realistic targets.
- There is a strong sense of purpose around the inclusion of education technologies into teaching and learning.
- The schools have given a high priority to the development of ICT within and across subject areas, with a continuing emphasis on the pedagogic capability of teachers to employ the appropriate active learning and assessment for learning methods, which are supported through the use of ICT.
- The range of policies and strategic plans available within the schools provide documented directions about the aspirations and approaches being used to include technologies in classroom practices.

Information Capital

- There are high levels of investment in ICT resources by the school to the benefit of both the staff and the students.
- There is an increasingly robust, extensive and reliable IT infrastructure.
- There is investment in innovative additions to move beyond core practices.
- Documented change management strategies are outlined in Specialist School and School Development Plans.
- There is increased availability of infrastructure to partners outside the school.
- There are high levels of confidence and growing levels of use by teachers and students.
- There are high levels of attainment achieved by the students in external specialist examinations.

Reflection and practice

As mentioned earlier, it was not one of the core objectives of this research to capture and analyse specific examples of teacher reflection. However, it quickly became apparent from the field settings that it was precisely this which seemed to add most value to the learning activities.

Teacher reflection was evidenced in a number of ways across each school setting: most clearly in the pedagogical and technical conversations that framed the learning activity. In general terms these conversations centred, in advance of teaching, around whether to use technology, to what extent and to what purpose. This often meant tapping colleagues for their suggestions or observations at an early point in the planning, asking for access to resources and materials, and discussing with peers and /or the ICT specialist possible alternatives and potential technology usages. After the teaching act the reflection focussed





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more on the technical and pedagogical learning coming out of the activity and the sharing of these with colleagues – in the main informally through staff room encounters.

The characteristics of these reflective practices can be outlined as follows:

- Designing and managing learning activities which take into account the opportunities and limits of ICT in the teaching of given topics within given subject areas. In short, there was no rush to use technology simply for the sake of using it; the usage had to sit within the broader teaching intention.
- Sharing practice, repertoire, and 'know how' in uses of technology, both with colleagues inside the school community, and – on occasions – beyond. In both settings this type of reflection was observed especially in the process of sharing practice within specialist teaching areas, less so around cross-curricular / interdisciplinary educational activity. Sharing internal to the school was noted in the informal comparing of experience and give and take around resources and strategies that worked with particular groups / classes. A number of staff from each school also reported accepting speaking invitations to address teacher groups, subject associations and (in one instance) to guest lecture on a teacher education programme at masters level.

On a more systems level, conversations around successful and less successful technology usage also took place regularly with the ICT / technology specialist at the schools. This seemed to be more technical than reflective but – from the perspective of the teacher – there was often learning involved which changed the pattern of subsequent planning or practice or both. An important sub-function of these conversations was to assist the technology specialist in identifying training needs that could be addressed at the school level – perhaps through an in-career day activity or a specialist training intervention. From the perspective of the individual teacher or group of teachers involved, it also helped clarify training requirements and contributed to shaping personal learning challenges and agendas. This was important because it points towards a widely observed interest among the teachers at both schools to develop and provide learning experiences consonant both with their own personal vision of learning / pedagogy and with the demands and challenges of the knowledge society.

In summary: while the research only touches on the act of reflection and its importance to how teachers use technology, it nevertheless confirms the significance of teacher reflection in both settings to the teaching activities of the schools concerned. We suggest that this represents both a system value and an important personal characteristic of teachers within the two schools and that these develop out of their vision view of education. The deliberation we observed around the use of technology relates to the content of the curriculum to be taught and the utility or otherwise of technology in better mediating this for the student. It also relates to the teachers' beliefs regarding the importance of students being active participants in their own education – and so to both schools' focus, where appropriate, on problem based, active learning, starting from educating for life as much as for academic purposes. Finally, it also points to the important role of reflective practice in the pedagogical relationship the teachers seek to establish with the students. Arguably, what we saw was very much about gearing one's practice to the principle that the education and welfare of all the students in one's care is a teacher's and school's prime responsibility.



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Reflection has certainly been a significant part of the drive through deliberative action at both Northtown High and Southcity College to more fully exploit technology and ICT to offer a richer and more meaningful educational experience for all concerned. This is an important message and is well-noted in advance of turning to the issue of value and its measurement in relation to the education technologies that form the core concerns of our research proper.

The full report of this project, *Valuing Education Technology in Schools in Ireland: North and South*, will be launched as a SCoTENS publication on 28 October 2010 in Belfast during the annual conference.

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DAY 2

THEORY AND PRACTICE IN FINNISH TEACHER EDUCATION: THREE PERSPECTIVES

1. INTEGRATION OF THEORY AND PRACTICE

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Background of Finnish Teacher Education

In Finland all teacher education programmes except vocational teacher education are nowadays at universities. Universities have full responsibility for these programmes. Subject studies, theoretical studies of education and practice teaching – all are under the roof of a university. In our department we have three degree programmes and I have in my presentation taken the two largest programmes as examples. I think that these two programmes are also very important factors behind the PISA results you have heard about before.

Degree programmes in primary teacher, or as we call them – class teacher education – are the flagship of the Finnish teacher education system. That is my personal opinion, but I know that many of my colleagues agree with me. We have had primary education as an academic degree programme in universities in Finland since 1979 – last September we celebrated our 30th anniversary. Primary teacher students take Master of Education degree. At the beginning it was a four year programme, now it's a five year programme – a 3 plus 2 year academic degree. Degrees are comparable with universities' other Master degree programmes. Our degree programmes have same requirements for Masters, for example, the requirement to do a thesis.

We have a nine year comprehensive school cycle in Finland. It starts at seven years old and it ends at 15. Primary teachers/class teachers teach all subjects at grade levels 1 – 6. Of course there are exceptions in some subjects, but mostly they are teachers who have their own class and usually they follow the same group of children for 6 years (although this is not a rule). In our university, the major in the primary teachers' programme is Education or Educational Psychology. Minors are a special feature of Finnish teacher primary education. We have an obligatory minor of 60 study points in the primary teacher's degree. This consists of all the subjects we have in our comprehensive schools' curriculum at grade levels 1 – 6. It means a combination of around 12 basic course subjects; their content as well as their pedagogy – what we call 'didactics'. The minor takes one academic year, but of course it is spread across two or three years.

With other minors, primary teacher students have two options. They can take one larger 60 study points minor. If you choose a 60 study points minor which covers a subject that we have in our comprehensive school curriculum at the upper grade levels 7 – 9, later on as a primary teacher you can also teach this subject at these grade levels. If you instead choose



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two smaller subject minors (25 study points each), you specialise in these subjects. You may get some extra salary for that specialisation, but it doesn't give you any rights as a subject teacher.

The programme for kindergarten teacher education (a Bachelor's degree) has been in Finnish universities, along with the other teacher education programmes, since 1995. It was originally planned by our Ministry of Education in the late 1980s that their training should be transferred from kindergarten teacher colleges to polytechnics. But when that act was in our Parliament, women Members of Parliament thought that the right place for teaching educators of the smallest children is not in polytechnics. It should be with other teacher education programmes in universities. They turned the stubborn heads of their male colleagues and the act was re-written. Like in other Scandinavian countries, around 40% of our Members of Parliament are women, so they are quite a strong force there.

Kindergarten teachers are also licensed to teach pre-school education: for six year olds before they enter formal education. We got legislative pre-school quite late, although unofficially we have had it from the late 1960s. It's optional for families but obligatory for municipalities. Legislative pre-school education started in Finland in August 2001. The amount of pre-school education is about 700 hours during that year. It means on an average four hours of the working days Monday to Friday. Quite a lot of pre-school children stay the whole day in day care centres.

Practice teaching

In Finland we have two kinds of teaching practice schools. Every university responsible for teacher education has a practice school (called a 'normal school') or two of its own. Normal schools have two responsibilities. They act as municipal basic schools or comprehensive schools, and also as municipal upper secondary schools. But their teachers have more requirements than ordinary teachers, because normal schools also get money for organising and supervising teaching practice periods. Students get 30% of their study points from teaching practice in normal schools.

Universities also have standing agreements with municipal day care centres and schools for teaching practice. This means that all our practice teaching for kindergarten teacher students is organised within municipal day care centres, including pre-school practice. We also have this option for primary teacher and subject teacher (secondary teacher) education students. We choose these 'field' day care centres and schools according to their specialities or their profiles, because our own normal schools are rather special schools. Their upper secondary levels are particularly popular and many parents want to get their children into these upper secondary schools.

We choose field day care centres and schools from the metropolitan area of Helsinki. In addition, we require that those teachers who take part in the supervision of our student teachers should have taken courses before they can act as supervisors. The municipal authorities are very grateful for this system because they think that they get something from it for their schools and their day care centres: they get in-service education for their teachers and especially for those teachers who are teaching practice supervisors. This latter group learn more than other teachers involved in ordinary daily activities.





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Student admission

In Finland teacher education programmes are very popular (see table below). I will take one example: primary (class teacher) admission.

Student admission (2008)

Degree Programme	Applications	Entrance examination part I	Entrance examination part II	Accepted	%
Class teacher education	1258	1045	362	123	9.8%
Kindergarten teacher education	537	464	300	101	18.8%
Early childhood master's programme	54	40	-	28	51.9%
Special teacher education	167	95	-	15	9.0%
Total	2016	1544	662	267	13.2%

From the top row of the table you can read that there were 1258 applications nationally for the primary teacher education programme at the University of Helsinki. Of these 1045 took part in written assignments and the 362 best of these came to our own entrance exam in the university. The national test measures your academic skills in the area of education. You have four weeks to read a textbook of nearly 200 pages, with (in 2008) 14 articles from different areas of education in the textbook. In the written assignment applicants had 120 multiple choice questions from these articles. In our own entrance exam we try to measure applicants' suitability for the teaching profession using interviews and group discussions. In 2008 we accepted the 123 best applicants. This meant that fewer than 10% of applicants to our primary teacher education programme got through. And most of these applicants come from the highest quartile of upper secondary school students according to their marks.

Teacher qualifications

The diploma that you get from the dean of your education faculty is in Finland also your teachers' certificate – nothing else is needed. You are then a legally-recognised teacher until you retire. We do not have auditing organisations for measuring teachers' competences. Nor do we have school inspectors; instead we have planners and coordinators. They visit schools and support teachers, but they don't give ratings or marks. Our National Board of Education had a different form 15 – 20 years ago: at that time most of the officials were inspectors. However this does not mean that teachers do not want to develop themselves as teachers or to take part in in-service education. They are even willing to pay for this. During their vacations they take part in summer universities, and take courses which give them more competences. Also the municipal authorities have to send their teachers for two days in-



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service education during each semester. Recently also the Ministry of Education has decided to give more money for the in-service education of teachers.

Strong and democratic public schools

I should add a few words about our school system and education policy. Finland is one of Scandinavia's welfare states. Whether we have conservative or leftist governments doesn't alter the course of Finnish educational policy. At the beginning of the 1990s – after 25 years – we got a conservative government. We were afraid for the future of our schools: would they move their development backwards and divide groups and classes with streaming? However they did not have that kind of policy. This means that today more than 95% of children in Finland go to a school which is the local public school. Public schools are the Finnish comprehensive schools.

Effectively we don't have any private schools in Finland. Most of the very few private schools are foreign language schools. Now, with the EU, we have got more English speaking teachers, pupils and schools, but they belong to our comprehensive school system and work within the same national curricular framework as our comprehensive schools. We may not have the best schools in the world, but – if I say it simply – we don't have poor schools in our system: if I remember right, all the averages of Finnish schools are above the overall average of the PISA data.

A big new challenge in our teacher education programme and in our schools is that we now have a growing number of immigrant families and their children. In the Helsinki metropolitan area we today have about 10% of children who come from homes where both parents or one of the parents belong to some other ethnic group than native Finnish. It has been calculated that in 2020 about 25% of our children in Helsinki metropolitan area will come from these kinds of homes. We have had plans and pilots for eight years in our department to give multicultural teacher education to special groups of students. Of course the basis of their curriculum is the same as with the other groups, but we try to give these student teachers more skills to work with ethnic minority children and to have a more positive attitude towards those children. We also use feedback from these pilots to emphasise multicultural content in the curricula of our mainstream students.

Integration of theory and practice

The principles and solutions we have used in our programmes make integration of theory and practice more effective. The first principle is that we have written into our curricula is that working integration pre-supposes differentiation. This means that bigger unities and more difficult aims come only after smaller and easier requirements have been achieved. The second principle is that integration must be carried out mainly by practice towards theory. This was very important at the beginning of our new programme. Before 1979 theory and practice were almost totally apart from each other in teacher education programmes. Teaching practice was also started quite late.

We don't think that theory of education should be applied as they do in the technical sciences or in engineering: it should be more implicit by nature. Since those early days, one of the central themes in our research and our writings has been to emphasise teacher thinking and reflection. If you visit our web pages, you will find articles, textbooks and projects which will give you more a better idea about the last 30 years in the activities of our department.





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When integration is carried out mainly through practice towards theory, it also gives teacher students possibilities to reflect. You need conception and theory to analyse your experiences from teaching practice. You don't get ready-made ideas or models from your teacher education programme which you can take out and apply in practice. Firstly you need theory and concepts to reflect on and to understand that there is something problematic in a particular teaching situation. Theory allows you to analyse what can be behind the activities you see in that situation. Theory gives you possibilities to discuss and to get supervision. You also need theory to get both more general and more exact concepts in order to give form and content to your practical experiences in education.

We have now also a new system in action in Finland. It involves the active use of portfolios in teaching and in mentoring from the start of a student's programme. Every teacher student belongs to a group of students which gets one lecturer as a mentor who follows her/his group during the whole programme. Every teacher student has a portfolio, in which they write and analyse their experiences from teaching practice. The group and their mentor meet maybe three times during one semester, and with help of portfolios and group discussions the mentor follows the development of her/his students. Another very important factor in this process of reflection is the thesis. In both Bachelor and Masters theses, student teachers handle pedagogical problems in a scientific way which is a very important process for a future teacher to learn.

To conclude, here are some more concrete points about our integration of theory and practice. Each teaching practice period has aims and character of its own. In the old programmes teaching practice periods were quite identical with each other. For instance in kindergarten teacher education, the amount of teaching practice represented 60 study points. Nowadays it's only 15 study points, the same as in primary teacher education. In primary teacher education the whole aim of the teaching practice used to be to learn give supervised good lessons in different subjects in the then national curriculum of the Finnish primary school. There were no broader or more pedagogical aims in teaching practice.

We have also written down in the curricula of our teacher education programmes the titles of those theoretical studies which give support to a particular practice teaching period. And we try to rotate university-owned 'normal school' school practice and field school practice meaningfully. This means that we don't just have one single model, but give student teachers the choice of teaching practice in both school types.



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2. MENTORING TEACHERS' ROLES AND STUDENT TEACHERS DEVELOPMENT

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Abstract

This article gives an overall picture of the teacher education and teaching practice at the University of Helsinki, Finland. What is the role of teaching practicums (i.e. teaching practice periods) in the education of Finnish classroom teachers? How are the practical studies organised and how is the success of the practicums ensured? Firstly a general overview of teacher education and teaching practice is given. The role of the field school network in teaching practice is discussed. A nine-field model of the mentor's roles is introduced by combining the teacher's pedagogical thinking and the mentoring relationship between the mentor and the student teacher.

Introduction

The Finnish comprehensive school offers equal rights for education to everyone regardless of sex, religion, social status or place of residence. Children in Finland enter school the year they turn seven years old. During the first six years of the nine year compulsory education programme, Finnish children are taught by a class teacher, and the last three by subject teachers. Prior to compulsory education most children attend public kindergarten and pre-school programmes which precede compulsory education. Teachers in kindergartens and pre-schools hold an academic Bachelor's Degree in Early Childhood Education.

Fundamental school reforms and changes in teacher education took place in the 1960s and 1970s. The old parallel school system was replaced by the current comprehensive school system. The foundation for research based teacher education was laid. The changes have proven to be successful according to the PISA results. Class teacher education in Finland is organized to help the teacher-to-be acquire a competence for making justified pedagogical decisions and to build the identity of a researcher practitioner. The selection process aims at finding the most motivated and suitable students. The teacher education programme provides them with further personal and professional development to finish with a Master's Degree in Education and a research practitioner approach to their work.

Practicums as part of the teacher education programme

Teaching practice is part of every teacher education programme at the University of Helsinki. It is organized both in university teacher training schools (normal schools) and in public schools which belong to a network of practice schools (field schools). Teacher training schools (normal schools) are part of the university. They are government funded and were recognized in the new university law which took effect on January 1st 2010. Normal schools function as schools for local children but also have a more specified task in teacher education. Public schools offer education for local children and provide a more common environment for teaching practice. Public schools represent the future work field of teacher trainees better than the university teacher training schools.





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Annually over 2000 teaching practice placements are needed in the teacher education department of the University of Helsinki for kindergarten teacher education, class teacher education, subject teacher education, special education and adult education. The capacity of university teacher training schools can cover about 40% of the needed placements. Over 60% of the placements are organized in the (public school) field schools and kindergartens. In addition to offering more capacity, the field school network is needed to actually enable teaching practice for certain programmes and subjects. Kindergarten teacher education, special education, adult education, subject teacher training in less common subjects and the Erasmus exchange students rely on public kindergartens and comprehensive schools or other educational institutions for their teaching practice. The field school network supports the work of the university teacher training schools but it also has a specific and unique position of its own. Field schools bring diversity and added value to teaching practice experiences for teacher trainees in the most authentic teaching environments. Also, prospective employment may be found through teaching practice in public schools.

The field school network was developed with funding from the Ministry of Education in 2004 – 2009. During those six years over 100 schools, educational institutions and day care centres joined the network which serves the teaching practice needs of teacher education at the University of Helsinki. Joining the network was free of charge and based on the interest and motivation of the administration and staff of the kindergartens or schools. Development of the network has been overseen by a steering group with members from teacher education, university subject departments, teacher training schools and the teachers' union. The personnel of the network have included a coordinator, researcher and a practicum assistant.

Co-operation in the field school network in the capital area of Helsinki is based on three year contracts between the university and the municipalities and independent institutions. The contract defines the forms of co-operation. The main form of co-operation are the teaching practice which takes place in public schools or kindergartens. Mentoring teachers' training is part of the contract. The training is free of charge and expenses for mentors' substitutes during the full day workshops are covered by the university. 500 teachers have been trained during the six-year-period both in Finnish and Swedish, the two national languages of Finland. An on-line guidebook for mentoring teachers was published. It can be found at www.helsinki.fi/behav/praktikumikasikirja/. Another form of co-operation has been the annual Teaching Practice Symposium. About 250 professionals from field schools, teacher training schools and the university attend the symposium every year. The goals of the symposium and its constituent seminars have been to further develop teachers' skills for mentoring work and provide teachers with an opportunity to meet and share experiences with colleagues. The contract also gives guidelines for mentoring fees and the duties of the mentoring teachers.

Integration of theory and practice in teacher education

Finnish teacher education is research-based. Kansanen (2008a) considers the academic research-based education of teachers the foundation for quality teaching in Finland. His core criteria for an academic programme are: students are taught by lecturers who are active researchers themselves, and there is a distinct division of studies between major and minor subjects. Finnish class teachers major in Educational Sciences and they have an understanding of research and skills to conduct research (Master's thesis) themselves. A class teacher's diploma of 300 ECTS consists of 25 ECTS in general studies (languages,



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communication, ICT, generic skills); 140 ECTS in studies in education including 60 ECTS in pedagogical studies for teachers; 60 ECTS in subject matter studies; and 75 ECTS in optional studies in different disciplines (Jakku-Sihvonen, 2008, 228). Main subject studies in education consist of cultural, psychological and pedagogical studies and studies in research. Teaching practice totals 20 ECTS. There is a 12 ECTS multi-subject practicum in the 3rd year of studies and an 8 ECTS major subject practicum during the 4th or 5th year. Minor subject studies include multidisciplinary studies in subjects and cross-curricular issues taught in comprehensive school. There are four options for major subject practicum during 4th or 5th year, 8 ECTS, which are:

1. Classroom teaching practicum in classes 1-6 of comprehensive school;
2. Basic teaching practicum with classroom teaching and subject teaching in classes 1-9;
3. Wide-ranging practicum with classroom teaching and, for example, special education, immigrant education, practice abroad, high-school or adult education;
4. Research practicum which combines Master's thesis preparation and teaching practice.

Hytönen (1995) introduced two principles which are being used for integrating theoretical studies with teaching practice in teacher education. First, integration presupposes differentiation. Second, integration needs to be carried out mainly through practice towards theory. Subjective experiences which are founded on practice function as the starting point for the student teacher's education. Theoretical studies support the understanding of practical situations and problem-solving. Teaching practice needs to be started as early as possible to familiarize students with teacher's work and motivate them. Interaction between theory and practice needs to be continuous. Teaching practice starts with focusing on pupils and interacting with them. In follow-up teaching practice the aims shift towards subject and content knowledge. Finally the goal is to find one's personal way of acting as a teacher who takes responsibility for planning and carrying out teaching and school developmental tasks independently.

Supervised teaching practice between academic and professional knowledge

Student teachers and the visiting teaching practice supervisors from the teacher education department represent academic knowledge in the teaching practice which takes place in public schools. Toom & al (2008) consider practicing teaching a move towards the general level of teacher education. This refers to teacher's pedagogical thinking, pedagogical decision-making and justification. Furthermore they consider teaching practice an essential element in the student teacher's knowledge formation. They identify four ways to promote the progression of student teachers towards an inquiry-oriented approach to teaching: supervision, counselling, mentoring and peer coaching. Student teachers experience all these during their practicums. Toom & al continue that when practice concerns teaching it is a question of making pedagogical decisions, whereas practice in research implies inquiry into one's own work as a teacher (Toom & al. 2008, 4).

The mentoring teacher and her/his practical theory on teaching represent the professional and school level knowledge in the teaching practice. The mentors take on the role of university employee and adult educator when they participate in teaching practice. A mentor's task is twofold: as a representative of the school, the mentoring teacher acts as an expert in school pedagogy, but at the same time the mentor must be aware of the objects and tasks of teaching practice (Jyrhämä & Syrjäläinen, 2009a, 2). Finnish teachers are relatively free to make pedagogical decisions and choose their ways of teaching. The teacher



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is supported in her/his work (for example, through multi-professional teams in schools) but the responsibility of the education of children cannot be shared. The national core curriculum of Finland sets the guidelines for aims, goals, organization and content of teaching. Municipality level and school level curricula define these goals and add local aspects to the national core material. Thus local issues can be taken into consideration in teaching. Teachers are responsible for their work and are trusted since no school inspections are carried out. The following model describes the field of supervised teaching practice where the academic knowledge goals meet the professional knowledge goals from the school.

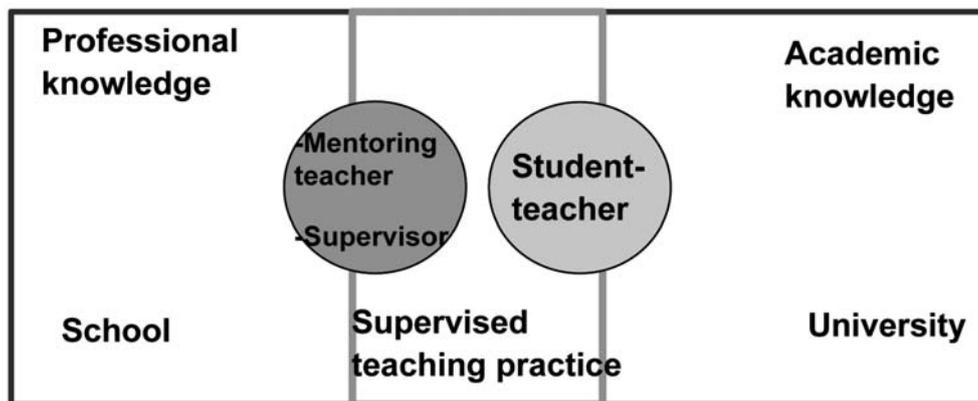


Figure 1. Supervised teaching practice between academic and professional knowledge (Jyrhämä & Syrjäläinen, 2009a)

The goals of teacher education and those of schools and students need to be shared, discussed and integrated into a cohesive system to give meaningful direction and content for a successful teaching practice period.

The roles of the mentor

Finnish researchers have actively been interested in the mentoring of the teaching practice. Jyrhämä and Syrjäläinen (2009b, 420 - 421) summarize the research on mentoring in the following questions:

- A. reflection and the meaning of constant self-development as a teacher and a mentor
- B. the problem of equality in the mentoring relationship
- C. dialogue as a goal in the mentoring process
- D. the multifarious nature of mentoring in teaching practice
- E. the role of the mentor.

They describe the relationship in the mentoring process being an asymmetric professional-novice relationship, with the goal being equality and a trustful atmosphere where the mentor and trainee are in a symmetric relationship. They further state that on the one hand student teachers long for a partnership and respect as equal colleagues, but on the other they expect concrete pieces of advice and suggestions from an expert. Due to the status differences, the relationship can have elements of a power struggle and may even lead to manipulation. Dialogue lays the foundation for rich reflection and co-operation. Jyrhämä and Syrjäläinen state that the content and interaction aspects make teaching practice mentoring very multifarious. They see the professional identity of the student teacher being built strongly on personal identity, and thus the student teacher is in a very vulnerable and emotional mode during the teaching practice. This requires sensitivity and social skills from the mentor. What kind of roles and what kind of mentoring bring the best results and enhance the development of the student teacher the most?



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Mentoring process

According to Nummenmaa & Ruponen (1994, 20), mentoring is interaction between the mentoring teacher and the student teacher in which learning from experience and interaction is central. The definition is based on Ojanen's description of well functioning work counselling of teachers (Ojanen, 1985). Mentoring at its best is dialogue between mentors and trainees. It involves the mentoring teacher being consciously aware of his role as a mentor and of mentoring models. Illeris (2003) states that studying is meaningful when it is closely linked to a learner's personal goals. Teaching practice is aiming at the development of the student teacher and should be founded on the personal goals of the student. Academic studies aim for critical independent thinking. Independence and self-directedness is described by Grow (1991) in the following four levels. This chart can be used for evaluating the roles of the mentor and the student in a mentoring relationship.

Levels	Student	Mentor
Level 1	Dependent	Authority
Level 2	Interested	Motivator, Guide
Level 3	Committed	Assistant
Level 4	Independent	Consultant

Table 1. Development of self-directedness in interaction (Grow 1991)

In level one the student is dependent on the mentor who functions as an authority. When the student shows personal interest in the teaching practice, the role of the mentor changes into a motivator or guide. The mentor can accept the role of an assistant when the student is committed. In the fourth level the mentor accepts the role of a consultant when the student functions in an independent level. During teaching practice all four levels may be found and experienced. The sensitivity of the mentor is essential in diagnosing who the student teacher is as a learner, what her/his skills are and how much involvement is required. The student teacher is expected to grow towards independence but in a learning process s/he also needs to be capable of accepting the role of dependent learner.

What is the content of teaching practice and how is the content related to a student teacher's independence? Jyrhämä and Syrjäläinen (2009b, 422) present the most central element in teaching practice as being the actions of the student teacher in the teaching-studying-learning environment. The goal of Finnish teacher education is to educate teacher's who are capable of pedagogical thinking, and capable both of being aware of the goals and reflecting the goals and ethical justifications of their teaching. Kansanen (1993) has developed a model for pedagogical thinking based on an idea of König (1975, 26-31).

According to Kansanen (1995, 33), pedagogical thinking implements itself in a decision making process where unconscious solutions and justifications are modified by the teacher's belief system. This can be seen in teacher's actions and also through the justifications of the decisions the teacher provides. In the model of a teacher's pedagogical thinking, the first level represents active teaching and the closely related pre-interaction and post-interaction phases. Planning of teaching (pre-interaction) takes place before teaching (interaction) and evaluation follows it (post-interaction).



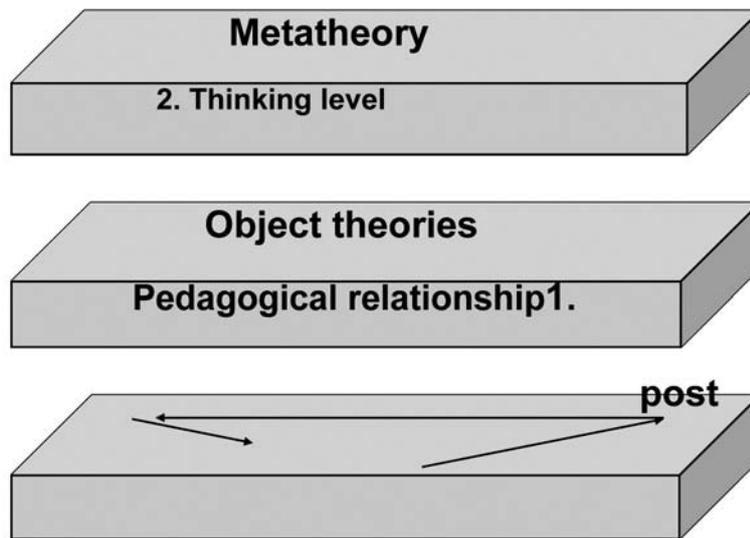


Figure 2. Teacher's pedagogical thinking (Kansanen 1993, 2004, 97; Kansanen & al. 2000)

Thinking level 1 reflects the thinking of the teacher and her/his reflection of the practical theory of education and teaching which s/he holds in relation to the activity level. The teacher has internalized the theory through her/his experiences. S/he implements it and evaluates it critically. In the second thinking level the reflections are about the object theories and concepts which are used. The teacher evaluates the ethical aspects of her/his decisions and whether they are fair and morally correct. Kansanen (2008a) considers supervised teaching practice as a means to reach the conceptual level in the practice oriented teaching profession. According to him one needs a certain distance from the practice when one functions at the practical level of teaching. This distance is achieved by discussions, thinking, reflection, research and other related meta-cognitive functions. Thinking skills, problem solving skills, decision making and other related meta-cognitive skills are difficult to study, develop and master without supervised learning experiences. Without theoretical reflection, practical experiences are difficult to benefit from. This places special importance on teaching practice and mentoring processes in teacher education.

Mentoring relationship in a mentoring triangle

A classical way to describe the three ground elements of the teaching-learning process is the German didactic triangle. Jyrhämä and Syrjäläinen (2009b) use the German didactic based model of Kansanen and Meri (1999) in which the three ground elements of the teaching-learning process are the teacher, student and the content, and their relationship with one another. In Figure 3 the relationship between the teacher and the student is pedagogical. The teacher supports the personal development of the student. Education in general and teaching in class are constructed around a substance which in schools are the offered subjects. The didactic relationship between the pupil and the content is called didactical. When the teacher guides the goal-oriented studying of a learner, the teacher interacts with the relationship between the student and the content. The term 'didactical' refers to the subject-related educational pedagogy in teaching. The teacher perceives the content of a subject being taught from a scientific foundation and subject pedagogical point of view (Praktikumikasikirja /Handbook for Mentoring Teachers).



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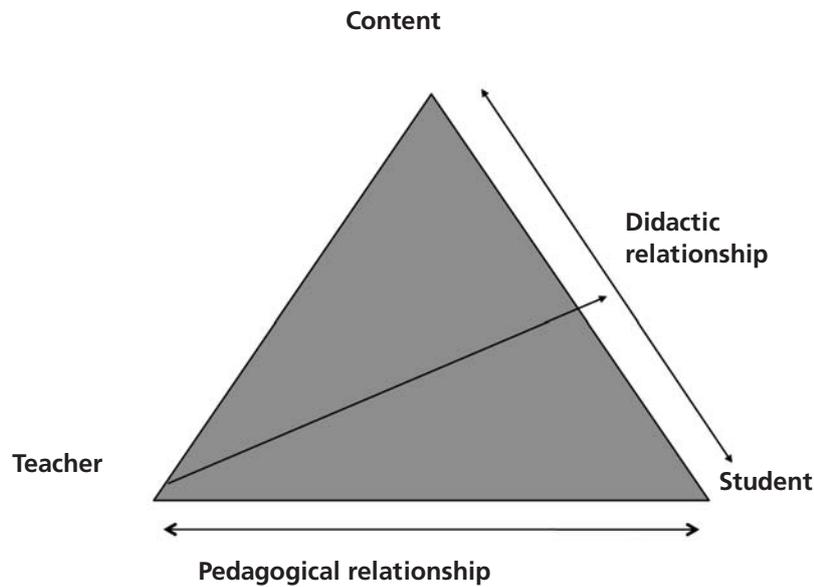


Figure 3. Pedagogical and didactic relationship in didactic triangle (Kansanen & Meri 1999 in Jyrhämä & Syrjäläinen, 2009b, 424)

This figure may be used to describe the relationship and roles of the mentor and student teacher in the learning context of the teaching practice. The mentor replaces the teacher and the student teacher replaces the student. The relationship between the two is pedagogical. The content of the first (content of education, school subjects) is replaced with the content of teaching practice including the academic goals as well as school and student level goals. In this process the student teacher is to act according to the action level of teaching and progress to the thinking levels of pedagogical thinking, and thus is able find profound and ethical justifications for his decisions. The relationship between the mentor and the student teacher in relation to the content of the teaching practice is a mentoring relationship. See Figure 4.

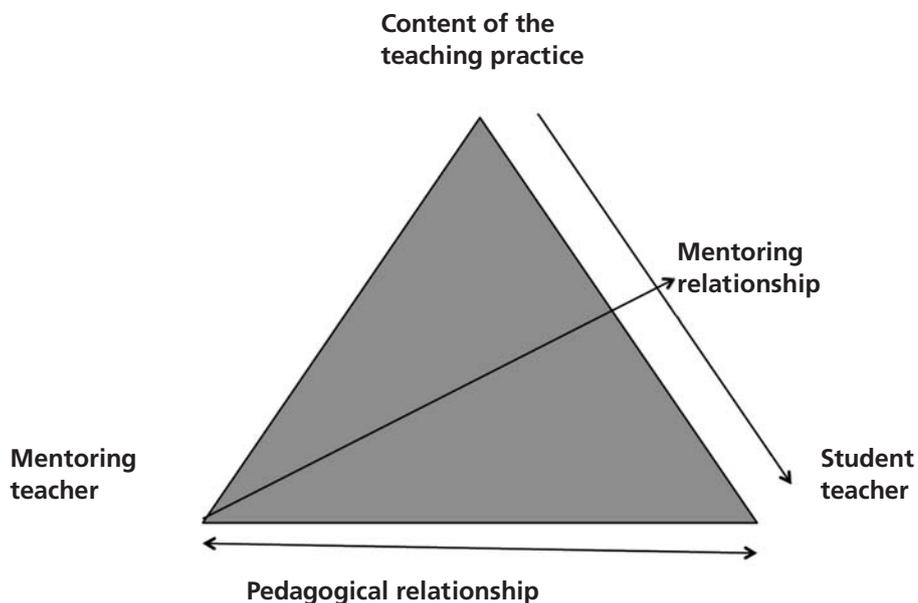


Figure 4. Mentoring triangle. (Jyrhämä & Syrjäläinen, 2009b)





Speakers from Finland at the 2009 SCoTENS Conference – ‘Reflective Practice: Challenges for Teacher Education’. From left to right: Ms Eeva-Kaarina Salmia, Professor Juhani Hytönen, Ms Leena Kaarina Winter.

Mentor’s roles within pedagogical and mentoring relationship

When the three levels of pedagogical thinking and the mentoring relationship are linked together, a model of nine different mentoring roles is achieved. See Figure 5. In the model the horizontal axis describes how the pedagogical relationship in mentoring moves from the action level to object theory and meta-theory level. At the action level the pedagogical relationship realizes itself through the actions of the mentor and how s/he behaves in the mentoring work and interaction with the trainee. The mentor is an advisor, supporter and co-walker. The mentor gives a model on teaching, and supports the practical skills of the student teacher. The conversations between the mentor and the student teacher move around practical issues. At object theory level the mentor is a role model, supporter and partner. Discussions include the practical theories of both. The mentor’s role is one of an expert. Jyrhämä and Syrjäläinen (2009b, 427) say that the relationship develops to the meta-theory level when the mentoring relationship reaches dialogic features. The mentor and trainee are in an equal interaction relationship and create new thinking and reflection. The interaction brings new horizons for both and skills to take a distance from the questions and situations concerned. The mentoring relationship is strongly ethical and moral.

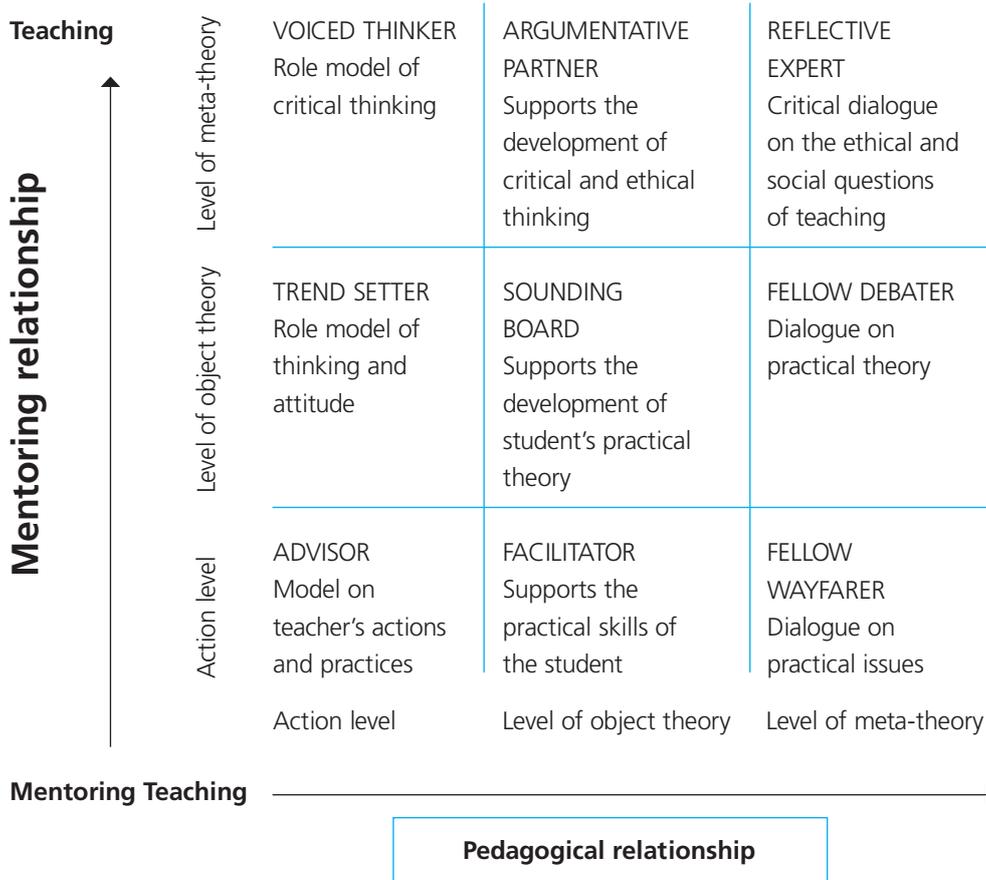
The vertical axis in Figure 5 describes the relationship in the mentoring triangle. This relationship is the aim of the mentor: to understand what the relationship of the trainee is to the content of the teaching practice. The mentoring relationship at action level is about thinking of the practical issues of the student’s work. The mentor concentrates on the student teacher’s action and development of his skills. At the object theory level the mentor aims to see also the practical theory of the student teacher and the justifications s/he provides for his actions. At the same time the mentor intentionally tries to show the meaning of conceptualization of one’s work through her/his own thinking. The relationship reaches meta-level when the mentor tries to model and find the meaning of critical thinking and meta-cognition in the development of the teachership. Many ethical and value reflections are part of the mentoring discussions. Although one may talk about positions of the mentor, or ways of functioning as a mentor, Jyrhämä and Syrjäläinen (2009b, 427-428) emphasize the role-taking process of the mentor. They see it as essential that the mentor has skills to adjust his actions according to the needs and skills of the student teacher. During the mentoring process the mentor can move from one role to another and between them.

Figure 5. Description of the pedagogical relationship and mentoring relationship in the different levels of pedagogical thinking – the different roles of the mentor. Jyrhämä & Syrjäläinen (2009b, 427) - see next page



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Kansanen (2008a) notes that the theoretical level of teaching and its mastery go back to the classical relation of theory and practice. Viewpoint is the reflection of one's own work. He calls this 'practitioner research'. According to him, the Finnish practitioner researcher is not a researcher but a practitioner researcher - this requires studying and conducting research, and studying and practicing teaching. The fundamental goal is for a teacher to achieve her/his personal practical theory, his or her own educational philosophy. Thus a Finnish teacher should have a research readiness in teaching-studying-learning readily available. Research-based teacher education aims at the continuing development of teachers' competence.

Kansanen considers conceptual level competence a foundation for lifelong learning for the teacher, but admits that a certain type of natural talent to succeed in the teaching profession is required too. The teaching itself will be the greatest teaching practice. One may ask though, who is there to reflect the thoughts, ideas, argue justifications and test models when the teaching is no longer supervised or mentored? Who functions as a co-walker, sounding-board or an argumentative partner for the teacher who completes her/his studies and accepts the role of an educator in a school?

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PERSPECTIVE OF A STUDENT – HOW THEORY AND PRACTICE RELY ON EACH OTHER

Ms Eeva-Kaarina Salmia a student teacher from Finland

The Perspective of a Student: What it is like to study in the Finnish Educational System to become a primary school teacher

This is my fourth year of studies so I still have one and a half years left. As Professor Hytonen mentioned, to become a primary school teacher in Finland is very, very desired. Many people apply to this education system and only a few get in. I think I was very lucky to be among those few people to be able to study to become a teacher. We had the entrance exams, with three different stages. We had a written test, a situation with other applicants, and an interview. I think the purpose or the goal in the written test was to try to see how we read the pedagogical texts and books and research - that we could see the essential there.

Then we had a situation where we had to give a lesson to other applicants and there were professors and lecturers from the university to observe us and to see if we were fit to become teachers. We also had an interview where we had to tell why we would be good as teachers; what we had to offer for Finnish pupils.

What is also exceptional in Finland is that most of us have working experience in our background. Before studying at the University of Helsinki I worked for one year as a school assistant, helping the children with learning difficulties. I think it was very fulfilling for me to see what kind of life there is at school and what kind of work is teaching work. There are a lot of challenges, and it is not easy work, although we have quite short days: we come to school at 8 o'clock in the morning and probably leave at 2 or 3 o'clock in the afternoon. The days are not that long, but the preparation you have to do for each lesson is hard, and also how demanding it is to meet each pupil as an individual, and to try to help them to develop themselves, and to make them learn – it is not easy work. It's very intense, and it was good for me to see it before I applied to the University of Helsinki. I think the goal in these entrance exams is to measure how fit the applicant is to do the teaching work, and to study on the teacher education programme. It is not only that you are good with pupils and you get along with them, it's also that you should have theoretical thinking – you should have the ability to research and to think in theoretical ways about pedagogy. I think that is one of the reasons why the Finnish education system is so special.

The first two years were very hectic – we had many classes that we had to pass before we could go to our first teaching practice. And there are a lot of courses: courses in the cultural basis of education, the psychological basis of education – which includes courses such as growth, development and learning, and knowing your pupil - and special needs education and pupil welfare services. Also language and communication skills, which include mother tongue, speech communication and interactive skills, scientific writing, foreign language, and of course the second national language, which is Swedish in Finland.

Of course nowadays there is also information and communication technology. It is very important that you can also use the information technology in your teaching with pupils.



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And during the hectic first two years, we also have a few educational research courses. They work as introduction courses to educational research methods.

Then of course, as Professor Hytonen mentioned, we have to teach every subject at school when we are primary school teachers. So during the first two years, we have mother tongue and literature education, mathematics education, arts and skills education, which includes music and physical education and crafts. Then we have education in humanistic subjects like history, religion and the secular ethics of education. In Finland we can choose if we want to teach religion or secular ethics, and if we want we can teach them both. I want to study both of them, because I am very interested in these topics. Then we have education in environmental and science subjects, like biology and geography and physics and chemistry. And then we can choose a few courses for our optional courses or if we want to go deeper into some subjects. I chose chemistry and history and arts and physical education.

In our third year of study it's time to make some independent choices. Then we can begin our first optional minor subjects. We can also study more optional studies and have a wide variety of options. Last autumn I went to Liverpool Hope University and studied there for an autumn semester, and I got my own optional studies from there.

In the third year of our studies we begin to write our thesis, which you can say is the first time we can try our own research. We have a freedom to choose our own topic, but if we feel that we don't have a particular interest or we just don't know what to research, then we can get it from the university. The topic I chose was girls between 12 and 13 years. I tried to find what kind of role models they have, and do they feel any pressure for how they should look and behave in society, and also the cultural differences affecting you, for example, if you come from a very traditional Finnish family, or if you are an immigrant. So that is my interest.

And then, also in our third year, we have our first teaching practice: a multi-disciplinary teaching practice which we do at the normal school of Vicki. And it is the first time we can try out what we have learnt in our studies: how theory and practice really work together. I think it comes quite late, but of course we have the option to go into the schools to observe lessons before our own teaching practice.

Then we have also research studies, which go deeper into different research methods, and extend the way we see ourselves as enquiring teachers. In our fourth or fifth year of studies we do our major subject teaching practice. I haven't done it yet, but I am looking forward to it. And we have a Masters thesis where we can really try to be enquiring teachers and enquire into our own topic further.

I think multi-disciplinary teaching practice is something that might be very interesting for you. Here are the goals for a student teacher, and these goals are made by the University of Helsinki, by our teacher education programme, and also by the normal school of Vicki.

The first goal is that a student teacher understands that the foundation for teaching is the curriculum and its aims and goals. In a way society has a lot to do with teaching. The curriculum gives you the guidelines – what to teach. It's up to the teacher to decide how to teach it. To make pedagogical decisions regarding every school subject is a major goal, and a very complex and a very challenging goal, because making pedagogical decisions is not so simple, it is complex. And we have to do it in every school subject, because each subject





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has its own pedagogy. To see the different nature of each school subject and to make these decisions is very challenging for me.

To understand the importance of knowing your pupil as an individual and as a class member is another of the major goals for a student teacher. When the pupil is motivated, the pupil learns better. When the pupil feels that he or she is valued as an individual, I think coming to school is much more pleasant. For me the way I interact with pupils has a lot to do with the fact that I try to look at them as individuals, and I try to see the strengths in each of them. It's not about comparing pupils with each other, comparing their talents and their intelligence – it's more about seeing their individual strengths and how to develop them. Also to try to give them ways to work together in groups and to give them the social skills necessary for society.

You can use a variety of different teaching methods, and take risks, when you have your first teaching practice. It's a chance to try – you don't have to succeed. You can have the courage to try different ways to teach – and I think you should try it because when you do your first teaching practice, you are in a safe environment. So it's your chance to try different ideas and ways.

The last goal is peer cooperation. We do our first teaching practice with a partner, and it's very, very peer-oriented so it's important to learn to cooperate with another student teacher.

The multi-disciplinary teaching practice is performed at the training school of Vicki. We do our second teaching practice at a field school, but this part is at the training school of Vicki. The duration is seven weeks.

The first week is for planning, and I think that planning is one of the key words when thinking about the first teaching practice. We have to plan a lot, and during the first week we do period planning. We plan every subject we teach for this period of teaching practice. In the other six weeks we teach, but we also have to do lesson plans for each of the lessons. It can be done with another student teacher, and most of us do it with a partner, but if you don't find anyone with whom you would like to do it, then you can do it alone.

Each of us also has a mentoring teacher who guides and instructs us, and for me it was a very fulfilling experience to have such a mentoring teacher. At first we observed the way she interacted with her pupils and I loved the way she treated them, and I really appreciated the pedagogical theories she taught us. Our mentoring teacher also supervises us, she is always present when we have the lessons, and after the lessons she gives us feedback. There are also supervising teachers from every school subject and they also give us feedback. What was good, what went well, where should we improve our teaching, and so on. In addition to the lessons we have to teach during the multi-disciplinary teaching practice, we also have to attend classes given by our mentoring teachers, our supervising teachers and other normal school teachers. We have to attend group meetings where we discuss our pedagogy, subject teaching, and about the decisions that we have made. And then we also have observation lessons, taught by training school teachers or other student teachers.

Here were my own goals for my first teaching practice:

To learn to set realistic targets and plans for the lessons. It is not always so easy to



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see what is essential. And what I have learned is that in each lesson, I have to set some main goals. And every activity in a way aims towards that goal. What I also learned is that we should set targets for pupils' social and emotional development. Of course, learning is very important, but so are pupils' social and emotional aspects.

To find and try a variety of different teaching methods and to use different equipment. We had a chance to try a lot of different ways to teach. We had lessons outside of the school – for example, in the forest. We did a lot of cooperative work with pupils in teams, and we used a variety of different equipment. Our supervising teacher in mathematics always says to us that it is very important to make mathematics concrete for pupils. So in mathematics we used a lot of different equipment, and also gave the pupils a chance to try this equipment themselves.

To clear my own thinking and motions behind my actions. I think that goes together with learning to set realistic targets and plans for the lessons. Because when you plan you have to clear the way you think and you have to try to see what is essential.

I have worked as a substitute teacher at the same time as studying at university – we could say probably once a week, and mostly it's a survival game. I go with the flow, and try to see pupils and to see the motives behind my actions. That was also a challenge for me before my first teaching practice. Not to be too emotional is a very personal goal, but in Finnish teacher education it's also about reflecting yourself and trying to be honest with yourself – that is why I put that goal into this presentation.

So what did I achieve from my first teaching practice? I think it was easier at the end of this practising period to concentrate on the essentials when planning our lessons with my partner. We took a chance on using different methods and different ways to teach, and it was very good, and I have a feeling that I now have very good methods to use for the next time I go substitute teaching.

Deeper pedagogical thinking. I think this is an area where where I will never be ready. But the teaching practice was a good step towards deeper pedagogical thinking. Close cooperation with a fellow student teacher helped – we spent the whole day together. I left my home at 7 in the morning, and came back at 8 or 9 o'clock in the evening. We spent the whole day together, planning, teaching and discussing, and I did my first teaching practice with a person who is very different from me. Our strengths are very different, so it was also good for me to see how different people can teach, and how to work with a person who thinks differently.

To analyse myself as a future teacher – my strengths and weaknesses. To realise those aspects where I have to develop more but also to realise that I can do something right; and to realise where I am strong and good.

So here are some of my expectations and hopes for my final years. I still have to do my Bachelors thesis and my Masters thesis. And I hope that during the next course of research methods I will get more instructions and guidelines – how to use these different research methods in both qualitative and quantitative research; how to use these methods to understand the curriculum guidelines and to have the courage to integrate and to interpret.





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I think I will do my major subject teaching practice next autumn or next spring, and I hope that I can combine my sensitiveness towards pupils with efficiency and action, and also develop my pedagogical thinking concerning every school subject.

Thank you.



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THE EDUCATION FOR RECONCILIATION PROJECT – A MODEL FOR CROSS-BORDER TEACHER PROFESSIONAL DEVELOPMENT

Dr Mary Gannon,
City of Dublin VEC Curriculum Development Unit

In this presentation I propose to give you a brief overview of Education for Reconciliation (Efr) and how it works, look at how the project responds to the challenges of teaching citizenship education today, and lastly examine some of the key features and strengths of the project model, many of which could be replicated both within and across the two jurisdictions.

The current phase of the Education for Reconciliation project, subtitled 'Securing the Future through Active Citizenship' runs from this year until the end of 2011. It is a joint project of the CDVEC Curriculum Development Unit and the Centre for Cross Border Studies, and, importantly, is run in association with the Second Level Support Service for Civic Social and Political Education (CSPE) in the South and the Citizenship Advisors in the five Education and Library Boards in the North.

Background to Education for Reconciliation

Education for Reconciliation is funded by the EU through PEACE III. It is now in its eleventh year and, as Andy Pollak pointed out at the launch of the current phase of the project last week, the fact that it has managed to attain and retain funding over so many years, indicates that, despite the inevitable ups and downs over its lifespan, it has something significant to offer to teachers in both jurisdictions. Since 1998, the project has worked with over 85 schools, including the current group of 25, and is estimated to have impacted on approximately 700 teachers and more than 25,000 young people. The figure for pupil impact is almost impossible to accurately calculate, but, given that teachers work with successive groups of students, it is fair to say that it is considerably greater than what we have immediate evidence for. Having just come into the project, I believe that it has had a significant impact on schools and teachers and am confident that it will continue to do so over the coming years.

Aims of Education for Reconciliation

The main aim of Education for Reconciliation is to contribute to peace and democracy in society in both jurisdictions on this island – an idealistic aim, but one that the project works towards in very grounded and practical ways. Our hope is that young people in both jurisdictions will leave our schools as active democratic citizens; that they learn to be active while in school and continue to be active in their communities, in society and in the wider world. One of the specific aspects of the project is that it does not work directly with students, as other cross border educational projects do, but works rather with teachers to provide them with a programme of professional development. This results in a huge multiplier effect and, as Andy has pointed out on numerous occasions, possibly this programme is unique in concentrating on working with teachers over a sustained period of time.





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Challenges for citizenship education in 2009

Citizenship education is often seen as an add-on to the curriculum. It is frequently timetabled last, and often given to teachers who simply have a free period in their schedule, but may have no interest in the area. The EfR project is working in the context of these and the other challenges that exist for citizenship education and for citizenship education teachers. Many of these challenges have been very well documented in *Education for Citizenship and Diversity in Irish Contexts*, the publication arising from a previous SCOTENS-sponsored conference which was launched last year. These include practical difficulties such as time constraints and teacher turnover, as well as the low status of the subject and lack of time for reflection by teachers (Jeffers, 2008; Murphy, 2008; Gleeson, 2008; Redmond and Butler, 2003).

The need for teachers to develop their own and their students' skills of critical and reflective thinking has been identified as key to the success of citizenship education (Harrison, 2008). If we expect students to develop critical thinking skills, then teachers must be supported in developing these skills themselves, as well as gaining confidence in the use of appropriate methodologies. For various reasons, many teachers still lack the skills and confidence to engage students through active learning methodologies in a way that is meaningful and that leads on to action and participation. Finally, a particular challenge for citizenship teachers, and one about which even many experienced teachers would be wary or hesitant, is that of teaching controversial or very sensitive issues.

In responding to these challenges, EfR concentrates on three areas: helping teachers develop their critical and reflective skills through examining the key themes of reconciliation; increasing their skills and confidence in the use of active learning methodologies; and building their confidence and competency in teaching controversial issues.

What Education for Reconciliation offers schools and teachers

So what does the project offer to schools and teachers? EfR is a long term programme of continuing professional development. Currently 25 schools and 42 teachers are participating in the core activities of the project. The project will run a series of professional development days and provide network contacts for these teachers between now and the end of 2011, typically four to five days per year. Participating schools include a wide range of schools – from an Irish medium school in Arranmore, off the coast of Donegal, to Ashfield Boys High School in East Belfast, from alternative centres like the Links Centre in Belfast to a very small vocational school in Drumshanbo, Co Leitrim. The network thus comprises cross border, cross community and cross school types, encompassing diversity arising from location (urban and rural), religious ethos, ability (grammar, secondary and comprehensive schools), as well as gender and social class. This offers a great opportunity for teachers to learn from each other's experience and to share good practice.

The way in which professional development is provided is also significant. This is organised through a combination of residential in-services for the whole group, and single day regional cluster groups. Last week 40 teachers came together for the launch of the project and a day and a half's in-service, and those teachers will have four more professional development days over the course of the year. We also offer in-school citizenship education team workshops, and most of the participating schools have already had an introductory workshop. While two teachers from each school participate as lead teachers, the in-school workshops provide



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the citizenship teams in each school with a context for what their colleagues are doing. When the lead teachers come out to in-service, their colleagues can relate much more easily to what they have done and this facilitates sharing of learning within the school. In-school workshops are offered on a regular basis, and participating and other schools can request one on a particular issue or resource at any time.

A key feature of the project is that we ask the participating teachers to become involved in writing and piloting new resources. The project has already developed three resources for Key Stage 3 and CSPE, and we're planning in this phase to work on resources for Key Stage 4 and Transition Year which will cover the main themes of reconciliation in a way that is appropriate for that age group.

Lastly, although the project is not aimed directly at students, we are engaged in promoting active participatory citizenship, so we will be looking for students' input into resource development through provision of feedback and suggestions on draft materials. We are also planning to run a number of small action research projects which will involve students in various ways.

Reconciliation

At the heart of this project is the concept and practice of reconciliation. Reconciliation is a contested concept and I do not propose here to discuss the wealth of theory which surrounds



it now. In relation to Education for Reconciliation, a central idea is that of reconciliation as process, as illustrated in the accompanying diagram. The circle moves from encountering the other, through reflection, to taking action together to bring about a fair and just society – democratic participation and action being the goal of citizenship education within which EfR works. Reconciliation is not something that can be learned and

is then finished. It is an ongoing process, which is a continually changing and developing. No matter who 'The Other' is, whether it is someone from a different cultural or religious background, somebody from a different social class, somebody from a different nationality, we need to constantly challenge and question our own perceptions and prejudices, and to continue to develop respect for all kinds of diversity and to actively contribute to building a better society for all.

The Education for Reconciliation model – strengths

What are the strengths of the EfR model? In answering this question, I will outline a number of features which might be applicable to professional development in differing contexts, and which are based on past evaluations by teachers and on informal interviews I recently carried out with members of the support services in both jurisdictions.

The strengths of Education for Reconciliation emanate from the way in which it:

- Primarily involves process
- Involves personal as well as professional development





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- Provides integrated support structures
- Combines breadth with a clear classroom focus
- Is cross border and cross community
- Supports the teaching of controversial issues
- Operates in a context of partnership with others.

Education for Reconciliation as process

Citizenship education is a journey, not a destination.

This quote (recently used by the 5 Nations Citizenship Network whose annual conference will be held in Derry/Londonderry next month) uses the image of journey to convey the centrality of process in citizenship education. It resonates with much of what has already been said in this conference and it accurately expresses the experience of being involved in Education for Reconciliation.

EfR is about making that journey, and about making it in the company of others from different communities and jurisdictions. This next quote is one I came across a few years ago and which I feel captures the challenges and the rewards of such a journey undertaken together. *Where currents meet there is fog, but there is also the best fishing* (Campbell, 1988).

The coming together of teachers from a wide variety of backgrounds and a wide range of value systems, and political, religious and cultural beliefs, to explore reconciliation in the context of citizenship education may pose difficulties for some individuals, but offers huge potential for great 'fishing' and hopefully for very large fish!

Personal as well as professional development

While the project provides a considerable amount of professional development, it is a personal as well as a professional journey. The creation of time and space for people to reflect on their attitudes, their perceptions, and their values is where the journey starts. Relationships of trust are essential if teachers are to work well together and to allow for working out issues that arise from conflicting views and values that group members might have. This is one of the main reasons why the project works on a long term basis, allowing teachers to work together for two and a half to three years. Travelling that kind of journey together models how students and communities can work together. Key to the whole process is the fact that if we bring people together, particularly for residential in-service, and create a safe space for them to deal with these issues, both personally and professionally, then they develop great confidence in going back into their classrooms.

Curriculum development has at its core the belief that teachers can develop their educational practice within the classroom, and that they can benefit hugely from a reflective and shared space to do this work. (O'Shea, 2008)

The majority of these educators used limited conceptual and perceptual frameworks. These frameworks were the key influences on how principals and teachers responded to cultural diversity, and the educational approach they took to diversity in their schools. (Gannon, 2004)

For all of us, there is a need to spend time reflecting on our perceptions and values and on how they translate into action. In busy and frenetic schools, teachers often lack the time for



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reflection and sharing, and the residentials and long term nature of the EfR project offer them the opportunity and safety to do this.

Integrated structures

The project is designed so that it provides integrated support to teachers and schools. Lead teachers come out to in-service; workshops for citizenship teams and whole staff groups are available to schools; and the project facilitates an ongoing support network for teachers. It is not yet clear how the current participants will choose to network, but so far there have been requests for chat rooms and forums as well as physical meetings, and it is planned that the project website will be redesigned to facilitate on-line networking, exchange of ideas and materials. Quite a number of the participating teachers are new to citizenship education and the network can provide them with support which might not be available within the formal system because of cutbacks. It also supports teachers who might feel isolated in terms of the work they want to do within citizenship. The fact that there is more than one form of support for teachers is critical in that the needs of teachers in a variety of situations can be met.

Combination of breadth with a clear classroom focus

EfR is a programme with a broad focus in terms of professional development. Active learning methodologies are central to citizenship education. The project offers teachers the opportunity to experience a wide range of methodologies used in different contexts. In-service covers a range of concepts and approaches, which can be used to teach citizenship education, but can equally be used across other areas of the curriculum. The in-service sessions not only help teachers develop their competencies and their skills, but also provide them with a clear focus for going back into their classrooms and immediately applying the methodologies and approaches to the mainstream curriculum. This is supported through the existing project resources, and also through their involvement in the development of new resources: either in developing ideas, or writing and piloting lessons. The teachers are not learning new methodologies or skills in isolation – all of their work is firmly based in the requirements of the mainstream curricula in both jurisdictions.

The benefits of cross border professional development

Education for Reconciliation could theoretically be run in one jurisdiction. So why have a cross border project? What does the cross border dimension add? When asked this question in recent interviews, two citizenship advisors (one from each jurisdiction) made a number of interesting points, basing their comments on more than ten years' association with EfR:

- Bringing teachers together within one jurisdiction is always beneficial, but to do that on a cross border, cross community, cross system and cross school type basis provides an added richness to the experience.
- One of the biggest benefits arising from cross border networking is that it really challenges teachers to question what kind of education system works. Despite the fact that we are on the one island and that there are many similarities between our systems, the very fact that terminology differs and that structures are different challenges teachers to think about what actually works in education.
- Teachers learn about new ideas and approaches as they hear what those from the other jurisdiction are doing, and this in turn enriches the development of resources.





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The cross border experience is reflected in the participants and also in the management of the project. Professional development sessions are facilitated on a cross border basis, with the active involvement of the citizenship education advisors from both jurisdictions. We also call on a range of facilitators from both jurisdictions who have expertise in specific areas.

Supporting the teaching of controversial issues

Teaching controversial issues is at the heart of Education for Reconciliation. This morning someone said to me that reconciliation is often a very difficult area that people shy away from. This reminded me of a friend who recounted how after the first IRA ceasefire, she was asked was Corrymeela now going to close down, that its work was surely finished. Her reply was that, on the contrary, its work was now only really beginning, that the ceasefire provided the space to start looking at the difficult issues. Teachers participating in EfR over the past ten years have sometimes had quite amazing discussions about their deepest fears, their experiences of the 'Troubles', their vision of the future, and their conflicting political and religious views.

Transferring that into the classroom can pose a big challenge for teachers. At the first meeting of the current group of teachers last week it was interesting to see that that issues such as anti-Traveller prejudice, racism, and policing came up, with teachers discovering that they were dealing with very similar issues on both sides of the border. And that is before we even start to explore the areas which people typically think of as reconciliation, such as sectarianism, and differing political and national identities. Teachers often fear that teaching controversial issues may bring up deep seated feelings, views and prejudices among pupils, many of them emanating from the young people's families, and may lead to conflict in the classroom. They need to feel confident that they can manage that situation. The project supports them in exploring these issues with pupils through looking at ways to create a conducive classroom climate, and at methodologies which make it safe for both teachers and pupils to discuss issues without becoming vulnerable. Some of the resources that have been developed to date, for example, *On Track* and *Policing Matters*, have begun the process of looking at a number of controversial issues and the current phase will continue that work.

Partnership

The final point I would like to make about Education for Reconciliation is the importance of working in partnership. The project is very much partnership based, not only across the many areas of diversity already mentioned, but also across different structures. The Curriculum Development Unit practice has always been not to dictate to teachers, but to work in partnership alongside them. The process of two teachers coming out of schools to in-service, working with teachers from other schools and then returning to work with their colleagues, promotes partnership and collegiality within schools. The management of the project is carried out through a cross border partnership between the CDU and the Centre for Cross Border Studies in Armagh. The project advisory group has representation from cross border bodies, including the two Departments of Education. The citizenship education support and advisory services in both jurisdictions would say that this project was one of the contributing factors in the establishment of a cross border association of advisors from the Second Level Support Service and the Education and Library Boards, which meets a number of times each year and has worked on joint projects.

Finally, our partnership extends to groups outside of education. One of the events which occurred last week was the launch in Enniskillen of the project resource *Policing Matters*:



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a *Citizenship Education Resource on Law and Policing*. The unique feature of the resource was that it was developed in partnership with members of the Police Service of Northern Ireland and An Garda Síochána, and was jointly launched by two Superintendents representing the two forces. Both forces are very interested in continuing to work with us to develop and expand the cooperation that was begun in the development of the resource through, for example, joint visits by the two forces to border county schools. Expanding our links and partnerships out to community contacts and other organisations has been one of the interesting aspects of this project and one that we plan to continue in the current phase.

Teachers' views

I've been describing this project from a management perspective, but what do the teachers think? The following quotes from teachers (one northern and one southern) interviewed during the evaluation of the 2006-2008 phase of EfR illustrate some of the benefits which teachers have experienced through their participation in the project.

'I've been opened up to difference, the realisation that I might have had a simplistic attitude. I'm not racist, but of course I am tainted with prejudice/sectarianism - none of us are virginal white, we're all contaminated by our ideas of people. Not as simplistic as before, aware of complexity.'

'It reminded me to keep balanced and unbiased in our approach. In relation to peace and reconciliation, [the EfR's] structure of resources was fantastic.... It broadened my initial thoughts on the area of peace and reconciliation, widened them to include peace and reconciliation within our country but also outside of the country.'

Challenges and hopes for the future

The biggest challenge facing the project is sustainability. How can we ensure that the work, particularly the reflection and critical practice, continues after PEACE III funding finishes? A related challenge is the fact that all change takes time. It will take time before many of the issues we're facing today become issues that teachers feel comfortable dealing with. While a level of sustainability is assured through participating teachers' continued use of EfR strategies and approaches with successive groups of pupils, it is hoped that additional ways of sustaining the impact of the project into the future will be explored during this current phase.

This cartoon captures our underlying hope: that the work of the project will continue to encourage teachers and their pupils to remain open to examining their perceptions and attitudes towards others who are different to them, and to act to remove the barriers created by conflict and build a better society for all. Our hopes for the future lie in the fact that teachers are willing to make the journey. After ten years there are still schools and teachers who want to become involved, principals willing to give space to EfR and release teachers in times of ever increasing pressure, students who become involved through classroom activities and action projects.





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Lastly it is the future of our young people which continues to motivate all those involved in Education for Reconciliation. It is therefore appropriate to conclude with quotes from two of these young people. The first is from a pupil from St Mary's High School, Lurgan, Co Armagh, who was involved in the making of a DVD titled *The Others* which accompanies the EfR project resource *On Track*. When asked had it made a difference to her to work on the DVD, her response was:

Yes, because before I done the film, I had a totally different attitude, but now I realise that there isn't any real difference to be fighting about, so there isn't.

The second quote is from one of the students who was in the class which organised a joint PSNI/Garda visit to their school, St Clare's Comprehensive School, Manorhamilton, Co Leitrim. At the launch of *Policing Matters* last week, she spoke of what she had learned from doing this Action Project.

To be honest, before doing the CSPE Action Project I had very little knowledge and insight into the PSNI, but if anything the hearsay was mainly negative, as I'm living down in the South. However the Action Project helped me to understand and respect the positions that both sides in Northern Ireland, the unionists and the nationalists, took in regard to reforming the Police Service. I genuinely feel that by doing this project I have a greater understanding of the difficulties, beliefs and traditions of both communities and how working together to achieve a mutual goal can bring a more just and peaceful result.

Conclusion

Education for Reconciliation has worked in the context of many changes, both political and educational, over the last eleven years. This presentation has shown that it has many strengths, and still has a valuable contribution to make to the creation of democratic and peaceful societies on this island. It is my hope that cross border cooperation in teacher professional development will become the norm for the two jurisdictions and that even when the EfR project funding finishes, its influence and the lessons learned from it will remain.

Finally, I would like to thank you for your attention at the end of a very busy conference. If you would like further information about Education for Reconciliation, it is available on our website www.reconciliation.ie. Copies of the project resources can be downloaded from the site or hard copies requested from the Curriculum Development Unit.

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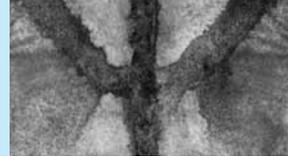
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CONFERENCE PROGRAMME

PROGRAMME

THURSDAY 15th October 2009

Tara Suite, Grand Hotel, Malahide

Chair: **Dr Tom Hesketh** (Co-Chair SCoTENS)

10.30 **Registration** and refreshments – Guttenberg Suite

11.00 Official Opening by **Mr Sean Haughey TD**, Minister of State for Lifelong Learning, Department of Education and Science

11.30 **Professor Andrew Pollard**, Director of the Economic and Social Research Council's Teaching & Learning Research Programme at the Institute of Education, University of London: ***Teacher Professionalism and evidence-informed reflective practice: Building Warranted Pedagogy***

1.00 Lunch – Guttenberg Suite

Chair: **Dr Kathy Hall** (University College Cork)

2.00 **Professor Jean Murray**, Professor of Education, University of East London: ***Developing Enquiry and Reflection in Teacher Education: challenges and solutions***

3.15 Refreshments

3.45 **Mr John Anderson**, Senior Inspector, Education and Training Inspectorate, N Ireland and **Dr Conor Galvin**, University College Dublin: ***Using technology in the school setting: opportunities for reflective practice***

4.30 Launch of updated SCoTENS Website: **Dr Roger Austin**, University of Ulster, **Dr Paul Conway**, University College Cork, **Mr Bernard McCloskey**, Northern Ireland Screen Commission

5.00 Poster Session – Poster exhibition of selected SCoTENS research projects 2007-2010 – Guttenberg Suite

5.30 Conference Recess

7.00 **Launch of Reports in the Griffon Bar**
Ms Caitriona Ruane MLA, Minister for Education Northern Ireland: ***School Leadership Policy and Practice, North and South, SCoTENS 2008 Conference and Annual Report***



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Dr Tom Hesketh, Director, Regional Training Unit, Belfast: *Professional Development for Post-Primary SEN Teachers in Northern Ireland and the Republic of Ireland*

Professor Marie Parker-Jenkins, University of Limerick: *Becoming a teacher: Primary student teachers as learners and teachers of history, geography and science: An all-Ireland study*

8.00 Dinner – Guttenberg Suite

FRIDAY 16 October 2009

Tara Suite, Grand Hotel, Malahide

Chair: **Professor Teresa O'Doherty** (Co-Chair SCoTENS)

9.00 **Professor Juhani Hytönen**, Professor of Education, Research Centre for Early Childhood and Elementary Education, University of Helsinki: *Integration of Theory and Practice*

9.30 **Dr Leena Kaarina Winter**, Coordinator, Department of Applied Sciences of Education, University of Helsinki, and a practising teacher : *Mentoring Teachers' Roles and Student Teachers' Development*

10.00 **Eeva-Kaarina Salmia** A student teacher from Finland: *Perspective of a Student: How Theory and Practice Rely on Each Other*
Round table discussion – question session

11.15 Coffee break.

11.45 Feedback from Round table discussion

12.30 **Dr Mary Gannon**, City of Dublin VEC Curriculum Development Unit: *The Education for Reconciliation Project - a model for cross-border professional development*

12.50 SCoTENS business

1.30 Lunch

Close





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LIST OF CONFERENCE DELEGATES

Mr. John Anderson	Managing Inspector	Teacher Education Department of Education
Dr Roger Austin	Senior Lecturer	School of Education, University of Ulster at Coleraine
Dr. Máirín Barry	Lecturer	School of Education and Lifelong Learning, University College Dublin
Ms Sally Bonner	Director	Donegal Education Centre
Dr. Andrew Burke	Senior Lecturer	Education Department, St Patrick's College, Drumcondra
Dr. Gareth Byrne	Head of School of Education	Mater Dei Institute of Education
Ms. Siobhan Cahillane - McGovern	Course Director H. Dip in Arts	Hibernia College
Mr. Jim Clark	Deputy Chief Executive	CCMS
Dr. Linda Clarke	Lecturer	University of Ulster at Coleraine
Mr Aidan Clifford	Director Curriculum Development Unit	City of Dublin VEC
Dr. Paul Conway	Lecturer in Education	Department, University College Cork
Ms. Mary Cuneen	Tutor School of Education	University College Dublin
Mr. Michael Delargy	Executive Member	IFUT
Dr Dymrna Devine	Senior Lecturer in Education	Director of PhD Studies, University College Dublin
Mr. Gerry Devlin	Senior Education Officer	General Teaching Council for NI
Ms. Áine Dillon		
Mr. Aidan Dolan	Education Director	NAHT (NI)
Ms. Anne Dolan	Lecturer	Mary Immaculate College
Dr Philomena Donnelly	Education Department	St Patrick's College
Prof. Sheelagh Drudy	Prof. of Education	School of Education and Lifelong Learning, University College Dublin
Ms. Gail Eason	Head of School Partnerships	Stranmillis University College
Dr. Patricia Eaton	Senior Lecturer	Stranmillis University College
Ms. Emer Egan	Assistant Chief Inspector	Department of Education and Science
Ms. Margaret Farrar	Director of Teaching Practice	Church of Ireland College of Education



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Mr. Patrick Farren	School of Education	Coláiste na hOllscoile, Gaillimh
Ms. Breda Fay		INTO
Prof. Peter Finn	Principal	St Mary's University College
Dr. Despina Galanouli	Research Fellow	Queen's University Belfast
Dr. Conor Galvin	Lecturer in Education	University College Dublin
Dr. Mary Gannon	Coordinator	Curriculum Development Unit, City of Dublin VEC
Prof. John Gardner	School of Education	Queen's University Belfast
Mrs. Jill Garland	Irish Medium coordinator	St Mary's University College
Mr. Charles Glenn		INTO
Prof. Gary Granville	Head of Faculty of Education	The National College of Art and Design
Dr. Colette Gray	Research Coordinator	Stranmillis University College
Mr. Martin Hagan	Education Coordinator	St Mary's University College
Mr. Will Haire	Permanent Secretary	NI Department of Education
Prof. Kathy Hall	Head, Education Department	University College Cork
Ms. Dolores Hamill	Director	Kildare Education Centre
Mr. Brian Hanratty	Senior Lecturer	St Mary's University College
Dr. Judith Harford	Director	Support Teaching Support Programme University College Dublin
Mr. Seán Haughey TD	Minister for Lifelong Learning	Fianna Fáil, Dáil Éireann
Dr. Tom Hesketh	Director	Regional Training Unit
Ms. Carmel Hinchion	Lecturer in Teaching	University of Limerick
Dr. Pdraig Hogan	Senior Lecturer	NUI Maynooth
Ms. Mary Hough	Director	Sligo Education Centre
Prof. Juhani Hytönen	Professor of Education	Early Childhood and Elementary Education, University of Helsinki
Dr. Michael levers	Senior Lecturer	Stranmillis University College
Ms. Maxine Judge	Project Mgr European Studies	Southern Education and Library Board
Ms. Carmel Kelly	Administrative Officer	National Qualifications Authority of Ireland
Mr. Patrick Kelly	Sectoral Manager	North South Ministerial Council
Ms. Joan Kiely	Lecturer	Marino Institute of Education
Mr. Leo Kilroy	Deputy Course Director	Hibernia College
Dr. Treasa Kirk	Senior Inspector	Department of Education and Science





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Ms. Aíne Lawlor	Chief Executive	Teaching Council of Ireland
Dr. Anne Lodge	Principal	Church of Ireland College of Education
Ms. Siobhan Lynskey		INTO
Dr. Mary Magee	Head of Home Economics	St Angela's College Sligo
Dr. Geraldine Magennis	Senior Lecturer	St Mary's University College
Mr. John McAllister		
Ms. Patricia McAllister	Administrator	SCoTENS
Mr. Eddie McArdle	Registrar	General Teaching Council for N.I.
Dr. Mary McAuliffe	Director	Primary Professional Development Service
Mr. Dermot McCartan	Senior Lecturer Education	St Mary's University College
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Funded or Co-funded by SCoTENS 2007-2008

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DEVELOPING REFLECTIVE SKILLS IN STUDENT TEACHERS

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Abstract

This study examined the use of peer-videoing in the classroom as a means of promoting reflection among student teachers. Ten pre-service teachers participating in a teacher education programme in a university in the Republic of Ireland and ten pre-service teachers participating in a teacher education programme in a university in Northern Ireland participated in the study. Locating the discussion within the theoretical literature on reflective practice, the study examined the capacity for peer-video analysis to facilitate student teachers to move from focussing on the technical aspects of their practice to an examination of the theoretical constructs underpinning their practice.

Research Context

There is widespread agreement that teaching is today more complex and demanding than ever before. Teachers are expected to work effectively with students from diverse backgrounds, promote tolerance and social cohesion, manage students from disadvantaged backgrounds, deal effectively with students with learning or behavioral problems, incorporate new technology into their teaching and keep abreast of best practice in student assessment (OECD, 2005). In the context of rapid and radically changing teaching and learning contexts, student teachers are increasingly required to become 'adaptive experts' who can adapt speedily and effectively to diverse classroom contexts (Darling-Hammond & Bransford, 2005, p. 3).

At the same time, student teachers are being told that they must 'engage in disciplined experimentation, incisive interpretation of complex events, and rigorous reflection to adjust their teaching based on student outcomes' (Darling-Hammond, 2006, p. 11). For many student teachers, the range of complex issues they typically meet in classrooms and the demands placed upon them both by their teaching placement school and by their academic programme is often overwhelming. As a result, many retreat to the more technical and immediate aspects of their practice, failing to see the connections between the theoretical and practical elements of teacher education programmes (Barone et al, 1996; Korthagen & Kessels, 1999; MacRuairc & Harford, 2008).

Reflective practice, the bedrock of most teacher education programmes, is one area which often falls victim to the theory-practice divide. While reflective practice is widely positioned at the centre of teacher education programmes, student teachers often find it difficult to see its application to their real life teaching experience (Craig, 1994; Cruickshank, 1987). Furthermore, student teachers differ markedly in their capacity to engage in reflection, many lacking the requisite propensity for 'open-mindedness, wholeheartedness and responsibility' (Dewey (1933, p. 107). Cognisant of these complexities and of the realisation that many key pedagogical principles are 'washed out' (Zeichner & Tabachnick, 1981) in the practicum, this study set out to examine ways in which student teachers can be supported in the development of their reflective capacities, not only for the duration of their teacher





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education programme, but for their long-term professional growth. Specifically, the study examined how peer video analysis facilitated student teachers to move from a focus on the technical aspects of their practice towards a closer examination of the theoretical constructs underpinning their practice.

Methodology

In order to foster collaboration between universities in the North and South of Ireland, the Standing Conference of Teacher Educators North and South (SCoTENS) offered to fund this research project which examined how peer-video analysis could promote reflective skills among student teachers. The centrality of reflective practice to teacher education programmes in both jurisdictions is paramount. However, recent research carried out in the Republic of Ireland (Harford & MacRuairc, 2008) suggested that there remains a disconnect between the theory surrounding reflective practice and student teachers' actual real-life teaching experience. A qualitative research project based on the peer-video model was chosen as the most suitable means for conducting the research. As Jacobs, Kawanaka & Stigler (1999, p. 718) note, 'a major advantage of the qualitative approach is that it more easily allows for the discovery of new ideas and unanticipated occurrences. Such research helps focus novel questions, formulate hypotheses, develop useful measures, and produce grounded theory.'

Twenty students in total participated in the research (ten in the Republic of Ireland and ten in Northern Ireland) which was managed by three academics, one from the North and two from the South. The support of SCoTENS allowed numerous cross-border visits, at which the project facilitators were afforded opportunities to see the work of their colleagues in a separate jurisdiction and meet students from that jurisdiction to discuss their involvement and development over the course of the year. While it was hoped at an early stage of the research that the funding could also be used to allow for students from the North and South of the country to engage in dialogue and visit each other's classrooms, this proved too problematic. However, discussions are currently underway examining how such a strategy could be executed.

Students in each university were allocated into tutorial groups, ten students in each group. Students were then randomly divided into pairs. Students were asked to engage in peer videoing of class teaching in real time and participate in the subsequent analysis of their teaching in a tutorial structure. They were also asked to keep a reflective diary in which they would record their thoughts and ideas as they went through the peer video and subsequent tutorial analysis process.

Findings

The views of the respondents fall into three broad areas: planning and preparation for differentiation; teaching and learning; and classroom management. Overall, the findings suggest that students' engagement with the peer-video process had a significant impact on the development of their reflective skills and in turn a direct impact on their classroom practice.

Note: A full version of this study is in press with *Teacher Development* (Taylor and Francis)



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SCHOOL BASED WORK IN THE NORTH AND SOUTH OF IRELAND: EXPLORING THE ROLE OF THE HEI TUTOR

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Abstract

In both the North and South of Ireland, the evaluation of the work and effectiveness of student teachers (primary) during school-based work is organised by the university and largely undertaken by university tutors. This is fundamentally different from the approaches used in many other countries. The purpose of this research was to examine the role of the university tutor in school-based work (primary) and thereby identify strengths and weaknesses in the Irish system. The research culminated in the proposal of a version of a collaborative model which lies along the continuum between current Irish practice and the systems used in other countries in which the evaluation of school-based work is predominantly the responsibility of the schools facilitating the placement experiences.

Introduction

In both the North and South of Ireland, the system for evaluation of the work of student teachers during school-based work (primary) is largely based upon assessment by the university tutor. The school provides the placement context and the role of the school is generally confined to facilitating the logistical arrangements for student teacher placements. This is fundamentally different from the approaches used in other countries. Whether initial teacher education (ITE) primary should be school-based or university-based or a mix of both has generated significant debate over the years in many countries (Booth *et al*, 1990; Shaw, 1997; Bullough *et al*, 1997; Brisard *et al*, 2005; Sachs, 2003).

Two radically different paradigms of teacher professional development are evident in this debate. On one side are the advocates of an apprenticeship model of ITE emphasising practical knowledge best learnt in a school setting (Lawlor, 1990). On the other side of the debate, the pendulum swings towards those who argue that ITE must include an emphasis on theoretical knowledge and reflective dispositions believed to be best learnt in a university setting (Edwards *et al*, 2002). Somewhere in between the school-based and the university-based extremities lie those who view a collaborative mix of school- and university-based work as the ideal model for ITE (McIntyre *et al*, 1993; Furlong *et al*, 2000).

How one conceptualises the school-based element has significant implications for roles and responsibilities of all parties involved. School-based work has long been a feature of ITE (primary) in both jurisdictions in Ireland, but research into roles and responsibilities of higher education institutions (HEIs) and schools has been relatively thin on the ground with some exceptions (Moran *et al*, 1999; Caul and McWilliams, 2002). Whilst some comparative research in the area of teaching practice in the two jurisdictions has been conducted (McWilliams *et al*, 2006), a specific focus on the role of the HEI tutor in school-based work, north and south, has not been explored.

Funding received from the Standing Conference of Teacher Education North and South (SCoTENS) enabled researchers at Stranmillis University College (a college of Queen's



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University, Belfast) and St. Patrick's College Drumcondra (a college of Dublin City University) to conduct a cross jurisdictional (north-south) qualitative research study of the role of the university/HEI tutor in school-based work, and therefore to address the lacuna. The specific research context was ITE (primary). Whilst the research focused primarily on exploring the role of the HEI tutor in school-based work, invariably some attention had to be given to the role of the class teacher, given the significance of the latter in mentoring relationships and the nature of student teacher learning during school-based experiences.

Research context

Perspectives on the role of the HEI tutor in school-based work (primary), north and south, were sought from a sample of class teachers, student teachers, HEI tutors involved in school-based work, and supervisors (retired principals, teachers contracted for the purpose of assessing students on school-based work). In the South, school-based work is more generally known as teaching practice and tutors involved in school-based work are referred to as supervisors. The research sample involved all teacher education university colleges, north and south, with a specific focus on ascertaining the views of student teachers, tutors, supervisors, and class teachers directly linked to Stranmillis College and to St. Patrick's College. A useful starting point for this paper is to map out in broad brush strokes the current situation vis-à-vis roles and responsibilities of HEIs and schools in teaching practice in both jurisdictions.

Teaching Practice: Northern Ireland

Northern Ireland has an integrated competency-based framework for teacher education straddling the three key phases in a teacher's professional career – ITE, induction, and early professional development. The framework is firmly located within a partnership approach to teacher education with specific roles and responsibilities for the various teacher education partners in Northern Ireland outlined in the Partnership Handbook (NITEC, 1998). The partners are schools, HEIs, education and library boards (ELBs) and curriculum advisory and support services (CASS).

Schools and HEIs have complementary roles in initial teacher education (NITEC, 1998, p.25). The basis of the partnership between HEIs and schools is founded on the understanding that some professional competences are best developed and extended during the school-based aspect of the ITE course (NITEC, 1998, p.22). HEI tutors in Northern Ireland are expected to liaise closely with their partner schools and to maintain regular and supportive contact with principal teachers and with teacher tutors who have overall general responsibility for placements in their respective schools. HEI tutors are required to deal with any problems which may arise in the context of placements on teaching practice. They also assess and report to their HEI on student teacher competences and progress. In the process, they are expected to consult with the class teacher and the teacher tutor in respect of the quality of students' teaching and progress over the course of teaching practice. They also provide feedback to students on lessons observed and on levels of professional competence attained.

Whilst schools and HEIs are expected to play complementary roles in teaching practice, it is interesting to note that schools in Northern Ireland rejected moves in the late 1990s to place their involvement in teaching practice on a statutory footing (McMahon, 2000). A spirit of goodwill and volunteerism is therefore the prevailing ethos in the context of schools' involvement in teaching practice in Northern Ireland. Schools are, in effect, free to opt in or out of partnership arrangements for teaching practice. This has placed considerable pressures





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on HEI tutors to make partnership 'work' and a visible inequity in the accountability of the partners involved (Loughrey, 2007; Caul and McWilliams, 2002). A similar situation in terms of inequitable accountability prevails in Scotland and in England alongside an ethos of volunteerism whereby schools choose to be involved in ITE or not (Brisard *et al*, 2006; Furlong, 2000). Ultimately, it is the HEIs that are inspected and held to account for standards in ITE, and not schools.

Teaching Practice: South of Ireland

In the South of Ireland, schools' involvement in teaching practice also has a non-statutory basis. Whilst schools are acknowledged and encouraged as partners with HEIs in ITE (DES, 2006; Government of Ireland, 2002), roles and responsibilities of schools and HEIs have never been clearly articulated in any official directive. Given that the Inspectorate are no longer involved in quality assurance in teaching practice, the delineation of roles and concomitant responsibilities of schools and universities will become clearer as the Teaching Council undertakes the accreditation of all teacher education courses in the Republic of Ireland. As matters stand, schools in the South have no formal role in mentoring or in the assessment of student teachers. Similar to the North, ITE continues to be reliant on a spirit of volunteerism in schools to provide teaching practice placements. Unlike their counterparts in the North and in other parts of the UK, most schools in the South do not have a designated staff member (a teacher tutor) with overall responsibility for student teachers and for communicating with HEIs in relation to teaching practice. From a structural perspective, therefore, school-based work in the South lacks an important HEI-school link structure to facilitate communication between the HEI and the school and *vice versa*.

Furthermore, in the absence of an agreed framework of competences for the continuum of teacher education in the South, HEI colleges provide their own teaching practice information to schools, including requirements of students and quality assurance protocols and practices. One of the smaller HEI colleges in the South requires class teachers to submit an end-of-placement report which HEI tutors use to inform the award of teaching practice grades. There is no requirement, however, on any teacher to provide advice or guidance to students on teaching practice. However most schools do, albeit in an informal way, and exhibit extraordinarily high levels of commitment to supporting students on teaching practice (Coolahan, 2003, 2007). In recent years, schools are also seeking to be more systematically involved in teaching practice and specifically in structured mentoring.

The role of the school in teaching practice in the South is very much along the lines of a gracious host in facilitating the logistical requirements of HEIs for school-based work. Conway *et al* (2009, p.119), in their report commissioned by the Teaching Council, examined ITE models and practices in nine countries and concluded that the nature of schools-HEI partnerships in the South is typically that of a workplace/host model:

'...the school is the location where the student teacher undertakes a placement. The tertiary institution provides all coursework. This model typically involves some coaching by supervising teachers.'

In the South, the absence of statutory agencies such as CASS and ELBs (in Northern Ireland), has led to the situation whereby efforts to involve schools more systematically in school-based work has been largely HEI-led and HEI-driven. One such initiative by a



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university college, the *Partnership with Schools in Teacher Professional Development* (Ni Áingléis, 2009, pp. 16-17) pilot project, has provided important insights into the partnership experiences of principals, class teachers, HEI tutors and student teachers, and their respective roles and responsibilities in teaching practice. In this project, whilst schools were willing to be involved in the mentoring and informal formative assessment of students, they did not wish to play a role in the award of teaching grades to students i.e. they did not want a formal summative assessment role in school-based work. Elsewhere, criticisms have been made of HEI-led models of partnership which serve instrumentalist tendencies and do little to promote collaborative partnerships in which HEIs and schools share joint responsibility for assessment and quality assurance in school-based work (Chapman *et al*, 2003).

Teaching Practice: the role of the HEI tutor

Given the proliferation of employment-based routes into teaching in England, the role of the university tutor has been significantly redefined and reshaped in a manner which has shaken the core philosophical base of teacher education (Gilroy, 1992). There are others who argue that HEI tutors have retained a key responsibility in the area of relationship-building with class teachers, principal teachers, school-based mentors and ITE co-ordinators and student teachers (Furlong and Maynard, 1995). HEI tutors are also required to ensure that teachers are upskilled in educative models of mentoring, updated in theoretical knowledge and encouraged in the discharge of their professional responsibilities to trainees (McIntyre and Hagger, 1994).

Hopper (2001) astutely draws the reader's attention to the need for the HEI tutor to have finely-tuned skills in time management and in the affective interpersonal domain. Furthermore, she argues that the role of the HEI tutor in developing school-based reflective practices is becoming even more important in school-based work. In support of Hopper's reflective practice emphasis, a body of research points to variable practices in school-based mentoring, with miseducative outcomes for student teachers in some cases (Edwards and Collison, 1996; Feiman Nemser, 2001). The role of the HEI tutor in ensuring student teachers develop reflective pedagogic dispositions is therefore a key role for HEIs into the future. An emphasis on developing students' reflective practice during school-based work also serves to offset an apprenticeship model of ITE and thereby bridge the theory-practice divide in a meaningful school-based context. Upskilling school staff in reflective practices requires HEI tutors to have high levels of communication and interpersonal skills and an understanding of school contexts and policies (Tomlinson, 1995).

The critical role of the HEI tutor in building relationships with schools has been highlighted by Moran (1998) in Northern Ireland, and by others committed to school-based mentoring approaches (McIntyre *et al*, 1993). Relationship-building is onerous, time-consuming and politically sensitive work. It is worth noting also that school-based work is not premised entirely on only student teachers learning and developing. HEI tutors also stand to gain from relationships with schools and from involvement in school-based work (Tickle, 2000). When Sachs (2003) argues for an activist teaching profession, she envisages the development of school-university partnerships as a symbiotic means of renewing the knowledge base of HEI tutors and school-based educators. Her preferred model of partnership in school-based work therefore assumes that 'each party has something to contribute to the professional learning of the other' (Sachs, 2003, p.66). This may ultimately lead to a redefinition of the role of the HEI tutor with an increased emphasis on the HEI tutor, school staff and student teachers





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working as a community of practice (Lave and Wenger, 1991; Stoll and Seashore Louis, 2007).

Rather than the traditional model of university-based lectures followed by a block period of teaching practice, ITE might therefore be reconceptualised within a constructivist, problem-based framework in which HEI tutors, teachers and students learn collaboratively in developing professional competence and knowledge as a community of learners. As Edwards *et al* (2002, p.123) assert:

'...they [HEI tutors] can make their contribution to initial training by supporting schools as learning communities and fit places for the professional development of beginning teachers. And they can enrich the continuing professional development of teachers by supporting and informing teachers' engagement with knowledge as users and producers of knowledge of teaching'.

A desirable role for the HEI tutor is therefore contributing to the development of critical reflective practices in classrooms and schools in which students are placed for school-based work. Nurturing the development of reflective dispositions in students would also help to offset the de-professionalising impact of the 'apprenticeship of observation' (Lortie, 1970) on how and what students learn during school-based work. It is interesting to note that school-based mentors believe they benefit significantly from the key role of HEI tutors in sharing reflective practice approaches with mentors during school-based work (Jones *et al*, 1997).

Research methodology

A mixed methods approach (Creswell, 1994) involving both quantitative and qualitative methods was used in the research. The dominant methods lay within the qualitative domain. The constant comparative method (Glaser and Strauss, 1967; Lincoln and Guba, 1985) was selected as the most appropriate mode of analysis given the dominance of qualitative data collected alongside the need to interrogate the various data sets on an iterative basis. The research sample was a random sample of participants, north and south, as follows:

- 60 class teachers (30 in the North, 30 in the South)
- 60 HEI tutors (30 in the North, 30 in the South) across all seven teacher education colleges on the island of Ireland
- 100 student teachers (50 from St. Patrick's College, 50 from Stranmillis College)

The research sample included a mix of participants in terms of gender and age range. Class teachers had various levels of experience of having students on teaching practice and were in schools of varying sizes and types. HEI tutors reflected a good mix of age, gender, specialist expertise and years of experience in school-based work. Student teachers were final year BEd students randomly selected from the database of the respective HEI.

The research instruments used were as follows: An initial questionnaire was sent to all participants, north and south, to ascertain some broad baseline perspectives on roles and responsibilities of schools and HEI tutors from the perspective of student teachers, HEI tutors and class teachers. The initial questionnaire focused on key structural and attitudinal dimensions around school-based work. The outcomes of the questionnaire provided prompts for the semi-structured interview schedules which were used with the focus groups of student teachers, teachers and HEI tutors. HEI tutors included retired teachers and principals



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contracted by the HEI to supervise students on teaching practice and had considerable experience of doing so.

Results and discussion

The survey sample was relatively small at 150, but of sufficient size and range across relevant factors to produce the indications expected from such a pilot study. These indications have been variously reinforced or modified by consideration of feedback from the range of focus group interviews. The results may be categorized within three main areas of discussion: the challenge of the tutor's role; the relationship between the roles of tutor and classroom teacher; and structures for communication.

Challenge of the tutor's role

There was general agreement that the tutor's role on school-based work was to observe practice, report and assess the work of the student. In addition, the role of the HEI tutor was to advise, encourage and support the student and to engage in dialogue with the class teacher in relation to the student's progress. However, HEI tutors stressed the need for much more consideration at HEI level of a variety of issues pertaining to their involvement in school-based work, such as recognition within HEIs of the importance of the tutor's role during school-based work, together with acknowledgement of the professional and administrative demands, and compromised research activity. Less than half of tutors in the North had received additional training in school-based work.

From the teachers' perspective, there was also agreement that tutors should talk more with pupils, examine pupils' work and discuss extra-curricular activities in which the student may be involved. Teachers agreed that HEI tutors engaging in dialogue with the class teacher should be regarded as essential, and that assigning the same tutor to a particular school over a period of years would encourage the development of improved communications and relationships. Students agreed that tutors should have to teach in a school for a certain number of hours or weeks every few years; that the inconsistencies displayed by university tutors or teaching practice supervisors were a significant cause for concern; and that each student would have one tutor continuing as his or her main assessor over the duration of the degree. Students proposed that evaluation of HEI tutors involved in school-based work should include length of time out of the classroom, number of years in the classroom, quality and nature of feedback to students, knowledge of curriculum, and evaluation reviews from students visited by tutors. All groups (HEI tutors, students, teachers) indicated that they were not convinced that a set of teacher competences presents an accurate analysis of what constitutes a 'good' teacher.

Relationship between the roles of tutor and classroom teacher

There was a lack of agreement regarding whether or not the teacher's assessment of the student's performance should form part of the student's grade for teaching practice, but there was general agreement in favour of a more structured role for schools in teaching practice, e.g. mentoring of student teachers. HEI tutors and teachers also believed that primary schools should have a statutory duty to provide placements for student teachers to undertake teaching practice (with an opt-out clause available to cover exceptional circumstances). Respondents recommended that teacher education institutions be responsible for the mentor training of teachers. It was also recommended that there could be a system for recognising 'Teaching Schools' in a similar way to 'Teaching Hospitals' (i.e. where selected schools were recognised as specialising in facilitating the professional development of students on teaching





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practice), and that specialist teaching staff who were responsible for mentoring students could be recognised by the award of professional accreditation in mentoring. Teachers in the research did not wish to receive monetary reward for their involvement in school-based work.

Structures for communication

It was generally agreed that a formal partnership agreement between a university college and primary schools would yield benefits such as improved communication and support, and clarification on roles and responsibilities. There was disagreement in relation to the timing of HEI visits to students on teaching practice. Tutor and teacher comments included both “visits should be unannounced” and, “visits should be announced”, but many advocates of both alternatives acknowledged that a mixture of announced and unannounced visits would be an acceptable compromise. The expectation on the part of schools was that HEI tutors would work around the timetable of schools in the organisation of their visits to students.

Discussion

A central question emerging from these results is this: should the Irish system of evaluation of student teachers' practice during school-based work entail more systematic involvement of schools and how should schools be rewarded accordingly? This could also mean that teachers were expected to be responsible for the assessment of the students' practice and that tutors would then focus upon delivery of the theory and research. The argument favouring this approach would be as follows: the teachers see the student teaching on a day-to-day basis, where the HEI tutor can see only a snapshot or a slice of the experience and may get an unrepresentative impression of the student's performance in the classroom (which could be argued as another reason why visits should be unannounced: the slice becomes even thinner if its random dimension is removed). The teacher is able to observe the student's professionalism on a much wider basis through the student's interaction with colleagues in the staffroom and perhaps through involvement in staff meetings and extra-curricular activities, where the tutor does not generally have access to this evidence.

Furthermore, many years may have lapsed since the tutors were themselves teaching in primary classrooms and it follows that they may not be as familiar with the nuances and challenges of classroom realities as practising teachers. Certainly, from the survey responses and focus groups, the perception of the students was that a HEI tutor who had been away from the classroom for a significant number of years would rather quickly forget how to teach. However, the students' assertions were not based on any apparent evidence or reasoning, but rather upon a belief that some tutors in particular would not be able to practise what they preached.

The tutors were evidently aware of such perceptions, but they were also aware that their analysis of the situation and their response to it required much more consideration. For the tutors, it could be argued that not only would many of the skills and principles of teaching not be easily forgotten, but that they must also continue to practise many of the same or similar skills as tutors. It could also be argued that their role is now fundamentally different from that of a teacher: it is based upon their experience and expertise, but their focus is now upon research and the very practice of teaching itself.

On the other hand, to take the analogy of workplace-based learning for medical doctors, leading surgeons practising within a Teaching Hospital will not only conduct lectures for



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student doctors: they will also 'teach by doing', while students watch and, later, work along with the 'teacher'. In the same way, it could be argued that within any professional training institution, students cannot be most effectively taught by their tutors, unless their tutors remain in touch with the realities and cutting edge of practice within their profession.

If schools were to receive remuneration for taking student teachers, there would be obvious financial implications for HEIs. HEIs could reasonably expect some financial acknowledgement for provision of mentor training in schools. On the other hand, if such mentor training and practice were to be recognized as credit points contributing to a Masters degree, then the university college might well recoup the predicted loss through larger enrolment numbers for higher degrees. Teachers and their professional development programme would also be beneficiaries. Another advantage of a credit point recognition would be that it might address an understandable reluctance on the part of teachers to undertake additional duties: in this case, of mentoring and assessing students.

When a similarly collaborative model of training school status was proposed for Northern Ireland in 1993, schools rejected the initiative, largely because of the additional expectations that would have been placed on them. Some of their general concerns might have been well-founded: in regions of England, for instance, where the school is paid (typically £800 per student placement), the reaction of the teacher to the increased workload involved in mentoring might depend on whether or not the school's policy is to channel the extra money directly to the teachers involved. In order to moderate differences in circumstances and expectations between schools and to ensure consistent standards, HEI tutors might be regarded as a form of 'moderation police' – where before, there had been a co-operative relationship, the tutors might feel that a vital link with the students is now lost. Remuneration potentially alters the nature of relationships.

In the context of whether teachers or HEI tutors should be involved in the assessment of students teachers' work, a compromise position might capture the best of both worlds: university colleges could provide the training for those teachers who wish to become mentors and contribute to the assessment of the student by providing the required graded reports that make up the student's profile and upon which the student is finally graded. These teachers could receive credit points towards a Masters degree.

On a practical note, however, such a system could not operate unless enough teachers were prepared to grade students to ensure that all students could be assessed by the same system. In fact, the system would fail if, in any year, an insufficient number of teachers took up the option to provide a grade. One solution would be to seek a statutory footing for the development, but a simpler solution already exists: in Northern Ireland, teachers already provide formative feedback and evaluation reports on students' practice. If the final grade for a student on teaching practice were determined by the tutors on the basis of, say, two tutor grades and with consideration of the teachers' reports, then implementation is readily achievable. There are benefits all round in doing so.

Schools would benefit because this relieves some of their professional development workload. University colleges would benefit from having more Masters students and a reduction of the number of tutor visits required. Student teachers would benefit from the assessment of both teachers and tutors. Teachers would benefit from an additional option for structured professional development. Tutors benefit from a reduced visiting workload and a





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more clearly defined role in relation to that of the teachers. Tutors and teachers would both benefit from a more co-ordinated and co-operative approach which would inherently address the identified communication difficulties. This then constitutes a version of the collaborative model that lies mid way between current practices in Ireland in the area of school-based work (primary) and practices in other jurisdictions in which schools have the predominant role in all aspects of school-based work.

Another critical area for consideration relates to the use of teacher competences as a basis for evaluation of classroom teaching. The teacher competences proposed by the General Teaching Council of Northern Ireland (GTCNI) in 2005 constituted a significant step forward in efforts to articulate the practice of teaching. GTCNI stated within their proposals that “the revised teacher competences must, therefore, be viewed as a structure which acts as a starting point to professional life for teachers and which is developed through career-long professional development.” However, although the competences are presented here merely as a starting point, following the practice of continual evaluation, the competences should be challenged: popular and anecdotal opinion would contend that teaching is an art, but it is possible to ‘paint by numbers’. Similarly, ‘good’ teachers are born, not made, and the rest have to be trained to ‘teach by numbers’. Such opinions may be blunt and unsubstantiated, but they do persist and may thereby be worthy of examination. Can we train those who may not be particularly gifted as teachers to teach by a formula? Certainly, during assessment of school-based work, there is much repetition of general principles. And if it were possible to define anything approaching a formula, would that leave room for study and development of more specialist knowledge for teachers, knowledge that is much needed (Purdy, 2008)?

Conclusions

Examination of the role of the university tutor in both the North and South of Ireland has facilitated the identification of a range of issues relating to this system, along with a proposal for a new version of the collaborative model that could be applied to the Irish systems. The identified issues fall within three critical areas: the status of school-based work alongside teaching and research responsibilities; the professional duties, expectations, and training needs of classroom teachers; and structures enabling and sustaining communication between schools, student teachers and HEIs.

The proposal for a new collaborative model is based on the argument that since classroom teachers have a broad holistic ‘picture’ of a student teacher’s performance on teaching practice and HEI tutors have more experience in assessing teaching, a compromise position might capture the best of both worlds. The final grade for a student on teaching practice could be determined by the HEI tutors with consideration of the reports (oral and written) that teachers already voluntarily provide, such that the reports must constitute a percentage of the final grade. University colleges could also provide further training for those teachers who wish to receive some form of professional accreditation for their contributions to student teacher professional development during school-based work.

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Research and Exchange Reports Executive Summaries



Funded or Co-funded by SCoTENS 2008-2009

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A CROSS-BORDER COMPARISON OF STUDENT TEACHERS' IDENTITIES RELATING TO MATHEMATICS

Dr Patricia T Eaton, Stranmillis University College, Belfast
Dr Maurice O'Reilly, St Patrick's College, Drumcondra

The project, known by the acronym MIST, aims to explore the mathematical identities of primary school student teachers. The mathematical identity of an individual is the relationship she/he has with mathematics, including knowledge and experiences, perceptions of oneself and others. Participants were drawn from both Stranmillis University College (SUC) and St Patrick's College Drumcondra (SPCD). The researchers on this project are Dr Patricia Eaton (Department of Mathematics, SUC) and Dr Maurice O'Reilly (Department of Mathematics, SPCD).

Work to date has been in three phases: preparation, data gathering, and data processing and analysis. The researchers met in Dublin on 10/11/08, 5/2/09, 23/2/09 and 24/08/09 and in Belfast on 6-7/8/08, 9/2/09, 16/2/09, 20/4/09 and 19/6/09.

Preparation (May 2008 – January 2009)

This phase involved gathering background information on the respective systems of initial teacher education and the broad context of mathematics education in Northern Ireland and the Republic of Ireland, familiarization with the research literature and preparation of a questionnaire to be used for gathering data. The last of these included completion of requirements of the Research Ethics Committee, SPCD, and presentation of the draft questionnaire to peers in the Mathematics Education Reading Group meeting in NUI Maynooth (12/12/09). The comments from the Reading Group were very helpful for fine-tuning the questionnaire.

Data gathering (February 2009)

Data was gathered from participants in the third year of their B.Ed. programme, having chosen to specialize in mathematics, using the questionnaire (with mainly open-ended questions: 5th February in Dublin, 9th February in Belfast) followed by focus groups (16th February in Belfast, 23rd February in Dublin), involving the same participants.

Data processing and analysis (March – June 2009)

The data (both questionnaires and focus groups audio recordings) were transcribed by Ubiquis Ireland Ltd (Waterford) and checked by the researchers. Patricia Eaton presented an initial overview of the research findings to the Mathematics Department, NUI Galway (3/4/09) in a paper entitled *Mathematical Identity or Who are you and why are you here?* The following three papers have been presented at conferences in 2009:

1. *What other people think and why it matters? An investigation of key influences on mathematical identity.* Presented at 34th ATEE (Association for Teacher Education in Europe) conference in Palma de Mallorca (29th August – 2nd September 2009).
2. *Exploring mathematical identity as a tool for self-reflection amongst pre-service primary school teachers: "I think you have to be able to explain something in about 100*





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different ways". Presented at the 10th Mathematics Education into the 21st Century Project conference in Dresden (11-17th September).

3. *Who am I, and how did I get here? Exploring the Mathematical Identity of Student Teachers*. Presented at the 3rd National Conference on Research in Mathematics Education at St Patrick's College Drumcondra (MEI3, 24-25th September).

The last of these provided a general overview of the MIST project to peers in mathematics education. The first two looked in some detail at specific issues emerging from MIST. We expect other journal papers to arise from the research.

A poster on the project was also displayed at the annual SCOTENS conference in Malahide in October 2009.

Dissemination Event (May 2010)

A symposium on mathematical identity based on the work of this project was held on 7th May 2010. The target audience was teachers/lecturers, researchers and policy makers from the mathematics education, mathematics and education communities in Ireland (north and south) with an interest in the key questions relating to mathematical identity to be addressed at the workshop.

The following key questions were addressed:

- What's in MIST for us as individuals?
 - Why is Mathematical Identity (MI) important in my work?
- What's in MIST for us collectively as a community of practice?
 - What insights on MI can we gain from one another?
 - What research collaborations in MI might be fruitful?
- What's in MIST for our students?
 - How can awareness of MI support students in their mathematical development?
 - How can MI be harnessed to attract more students into mathematics?

The event was organised as a series of keynote addresses followed by a number of workshops where the key questions could be explored in greater depth, facilitated by Prof. Claire Lyons, Mary Immaculate College, Limerick. The keynote speakers were:

- Dr Maurice O'Reilly, MIST researcher, CASTeL, St Patrick's College
- Dr Patricia Eaton, MIST researcher, Stranmillis University College
- Dr Dolores Corcoran, Education Department, St Patrick's College
- Dr Miriam Liston, Project Officer for Mathematics, NCE-MSTL
- Dr Aisling McCluskey, Mathematics Department, NUI Galway
- Dr Nick Todd, Education and Training Inspectorate, Northern Ireland

24 participants enjoyed an interesting and stimulating event with very positive feedback received from all who attended. There is potential to harness the interest and enthusiasm generated by the symposium to explore future collaboration in research projects in this area.



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STUDENT TEACHERS PERCEPTIONS OF THEIR COMPETENCE TO MEET THE NEEDS OF PUPILS WITH AUTISTIC SPECTRUM DISORDER IN MAINSTREAM PRIMARY SCHOOLS

Ms Mary Greenwood, St Mary's University College, Belfast

Dr Patricia Daly, Mary Immaculate College, Limerick

Ms Anne O'Byrne, Mary Immaculate College, Limerick

EXECUTIVE SUMMARY

Introduction

This is an executive summary of the collaborative research project carried out during 2008-2009 by St. Mary's University College, Belfast and Mary Immaculate College, Limerick with financial assistance from the Standing Conference on Teacher Education North and South (SCoTENS). The full report can be accessed on the SCoTENS website.

Rationale and purpose

The rationale for the current research was underpinned by the increasing inclusion of pupils with special educational needs in mainstream schools, including pupils with Autistic Spectrum Disorder (ASD). The purpose of this project was to ascertain how competent student teachers feel about addressing the needs of pupils with ASD after the teaching element of the B.Ed. course. Additionally, the project sought to discover what impact, if any, school experience placement had on students' attitudes and competence in this area when they were in the final year of their B.Ed. degree.

An Autistic Spectrum Disorder is a complex developmental disability that essentially affects the way a person communicates and relates to people (American Psychiatric Association, 1994). Asperger syndrome is a condition at the more able end of the spectrum and these pupils will generally be in mainstream schools in addition to those pupils with high functioning autism.

If barriers to the learning of these pupils are to be minimized, it would seem that at the very least teachers should have an understanding of ASD and the difficulties which these pupils might encounter in mainstream classrooms. Teachers will also need to be equipped to recognize the characteristics of ASD, as many of these pupils may be in mainstream schools without an identification of their difficulties. If teachers are to meet the needs of these pupils they will need to have a repertoire of teaching strategies and approaches which they can employ if the pupil with ASD is to realise inclusion. Consequently, teacher educators will need to address these areas in course content for students in initial teacher education.

Participants

Participants in this study were from St. Mary's University College, Belfast and Mary Immaculate College, Limerick. Students in St. Mary's engage with a four-year Bachelor of Education (B.Ed.) degree programme and MIC students a three-year B.Ed. degree programme.





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Methodology

Data gathering for this research study consisted of two phases: a questionnaire and focus groups. In phase one, a one-page questionnaire was designed to elicit responses from the student teachers in order to explore the extent the B.Ed. degree programme, in both participating higher education institutions, facilitates its students in meeting the needs of pupils with autistic spectrum disorders in mainstream primary schools.

In phase two, a number of focus groups were conducted with students in the final year of their teacher education programmes (Year 4 in St Mary's and Year 3 in Mary Immaculate College, Limerick). This was carried out using a semi-structured interview agreed for both institutions. This was undertaken to ascertain if students' competence levels were enhanced by their teaching/school experiences.

Results of the questionnaire

Frequency, descriptive and other statistical analyses were conducted on resulting data from each question. Correlations were also investigated.

Children with Autism in the mainstream primary school

Overall, the majority of students (80%) agreed that children with Autism should be included in mainstream primary school. Only one-fifth (19%) were undecided and 1% disagreed.

Perceived ability to meet the needs of pupils with ASD

This section of the survey explored students' perceived ability with regard to recognising the characteristics of ASD and their perceptions as to whether they could meet the needs of these pupils employing various teaching strategies and skills (taught on the course). All statements were rated on a five-point Likert scale from 'strongly agree' to 'strongly disagree' (table on next page).

More than half of the students reported some form of agreement with each statement. This ranged from 58.5% of the students indicating agreement that they know how to meet the needs of pupils with Autism, to 92% of the students indicating agreement that they could be inclusive in their approach if they had a pupil with Autism in their class.

Conclusion

Overall, results indicate that the Bachelor of Education degree programme enables participating St. Mary's and Mary Immaculate College students to feel confident in meeting the needs of pupils with Autistic Spectrum Disorders in mainstream primary schools.

In light of the research findings it would appear that student teachers in both jurisdictions embrace inclusion. The project hoped to establish how well prepared B.Ed. primary students feel they are in addressing the needs of pupils with ASD through the teaching element of the B.Ed. course. This question was answered as the study showed that students feel confident in meeting the needs of pupils with Autistic Spectrum Disorders in mainstream primary schools. Additionally they feel competent in their capacity to employ the strategies learned as a result of their degree course and school / teaching experience.

Full report on <http://scotens.org/wp-content/uploads/Student-Perceptions-2010.pdf>



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Students' (St Mary's University College and Mary Immaculate College combined) perceived ability to meet the needs of pupils with ASD

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I know how to recognise the characteristics of a pupil with Autism	8%	76%	15%	1%	0%
I know how to meet the needs of pupils with Autism	3%	55.5%	36%	5%	0.5%
I can differentiate the curriculum to meet the needs of pupils with Autism	5%	59%	32%	4%	0%
I am aware of strategies to address the needs of pupils with Autism	10%	76%	12%	2%	0%
I could put into practice strategies to develop social skills of pupils with Autism	10%	70%	18%	2%	0%
I could put into practice visual strategies to meet the needs of pupils with Autism	21%	70%	8%	0%	1%
I could put into practice social stories to meet the needs of pupils with Autism	21%	63%	14%	2%	0%
I could be inclusive in my approach if I had a pupil with Autism in my class	23%	69%	8%	0%	0%
Using the strategies which meet the needs of pupils with Autism would be useful for all pupils in my class	44%	47%	8%	1%	0%





ENGLISH AS AN ADDITIONAL LANGUAGE (EAL) IN UNDERGRADUATE TEACHER EDUCATION PROGRAMMES IN IRELAND

Mr Frank Quinn, St Mary's University College, Belfast
Mr Martin Hagan, St Mary's University College, Belfast
Dr Anne Ryan, Coláiste Mhuire, Marino Institute of Education
Ms Barbara O'Toole, Marino Institute of Education
Mr Sean Bracken, Trinity College Dublin

EXECUTIVE SUMMARY

This report is of a collaborative research project carried out during 2008-2009 by Coláiste Mhuire, Marino Institute of Education, Dublin and St. Mary's University College Belfast, with financial assistance from the Standing Conference on Teacher Education North and South (SCoTENS). The purpose of the project was to carry out a comparative study of provision for the teaching of English as an additional language (EAL) in undergraduate programmes in the two colleges.

Coláiste Mhuire, Marino Institute of Education, is a primary teacher education college established in 1904 by the Congregation of Christian Brothers. Its population comprises approximately 450 students, of which some 320 are undergraduates pursuing a B.Ed. degree, and just over 100 are post graduates taking an 18-month Higher Diploma in Education (Primary). All qualifications are accredited by Trinity College, Dublin, of which Coláiste Mhuire is an associated college.

St. Mary's University College is a college of Queen's University, Belfast which formally came into existence in 1985 following the amalgamation of St. Mary's College and St. Joseph's College. The origins of St. Mary's however, can be traced back to 1900 when the Dominican Sisters opened St. Mary's Training College for women teachers. The college provides initial primary and secondary teacher education in English and Irish; a Master of Education programme for qualified teachers; a postgraduate programme in Education for teachers wishing to work in the Irish Medium sector; and a degree in Liberal Arts. The mission of the college is to make a distinctive contribution in the Catholic tradition to higher education in Northern Ireland and to widen access and participation to promote economic and social development.

The report is in four sections. It opens with an overview of the educational contexts of the Republic of Ireland and Northern Ireland. This is followed by a chronological review of policy documents with a particular focus on interculturalism and language education. Section three commences with an overview of EAL provision in undergraduate courses in both colleges, followed by a description of the design and implementation of the research instruments. A detailed analysis of the research findings is then provided. The report concludes with recommendations for future provision in the area of EAL within the colleges concerned. These recommendations may have implications for other teacher education colleges on the island of Ireland.

The full report can be found on the SCoTENS website at <http://scotens.org/wp-content/uploads/english-as-an-additional-language.pdf>



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AN INVESTIGATION INTO THE EXPERIENCES OF PRIMARY SCHOOL TEACHERS WITH REGARD TO THEIR TEACHING OF HEALTHY EATING GUIDELINES WITHIN THE CURRICULUM

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Ms Eileen Kelly-Blakeney, St Angela's College of Education, Sligo

Ms Amanda McCloat, St Angela's College of Education, Sligo

Ms Dorothy Black, University of Ulster

EXECUTIVE SUMMARY

Introduction

The primary school setting offers an ideal environment for educating children with regard to healthy eating. Information pertaining to food and nutrition is a compulsory element of the primary school curriculum across Ireland, within both the Personal Development and Mutual Understanding (PD&MU) curriculum in Northern Ireland and the Social, Personal and Health Education (SPHE) curriculum in the Republic of Ireland. To date in both jurisdictions there is a dearth of information pertaining to teachers' experiences of teaching the food and nutrition related content of either curricula. As a consequence, this cross border research project was conducted by the Home Economics Department, St. Angela's College, Sligo and the School of Education, University of Ulster, Coleraine, with the assistance of SCoTENS funding.

Field research was undertaken between January and June 2009. The main purpose of the study was to ascertain teachers' perceptions of teaching about food and nutrition and, based on their classroom experiences, to determine the supports required for the enhanced teaching and learning of this area. The study focused on primary school teachers' experiences of teaching food and nutrition in the classroom within the PD&MU curriculum in NI and SPHE curriculum in the RoI. Consequently, it is envisaged that the results from this study will be useful in identifying areas where further support/continuous professional development (CPD) might be required and may be a starting point for the designing of resources to meet these needs.

Research Process

A quantitative non random approach was employed. A questionnaire was designed by the research team and administered to primary school teachers across Ireland. The aim of the questionnaire was to investigate the perceptions, knowledge, attitudes and experiences of primary school teachers with regard to their teaching of healthy eating and food related issues. The questionnaire consisted of four parts: personal profile, school policy and practice, teaching and learning, resources and support. All quantitative results were analysed using SPSS version 15 while the open ended questions were analysed using a qualitative thematic approach.

Results and Findings

There were a number of commonalities evident across both jurisdictions which have implications for both initial teacher education as well as future collaborative CPD initiatives.





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Knowledge

Regardless of the location, most of the teachers reported their personal knowledge of nutrition as either 'excellent' or 'very good'. In spite of this, they then went on to rate their self efficacy in the teaching of food and nutrition as 'moderate'. This may have been due to the fact that many of the teachers were relying on their initial teacher education for their knowledge of food and nutrition. Notably, over a third of the total cohort had been teaching for more than 16 years.

Experiences

In both NI and the ROI the majority of the schools had a healthy eating policy. However, very few were in receipt of funding to support the operation of the policy. In both jurisdictions most of the schools had strong parental support for the implementation of the healthy eating policy. Interestingly, nutrition education interventions such as *Food Dudes* in the ROI and *Brighter Bites* in NI were very popular. With regard to resources, it was evident that the majority of teachers did not have a textbook specifically for SPHE or PD&MU.

Attitudes

Across the Island of Ireland teachers rated the work carried out on food, health and nutrition within the curriculum as 'very relevant' to pupils' lives. The teachers were also very positive about the healthy eating policy and rated it as having an 'excellent' or 'very good' impact on pupils' eating behaviour and health attitudes.

Implications for Teacher Education

The fact that many of the teachers are relying on their initial teacher education for their food and nutrition related subject knowledge is a cause for concern. This finding highlights the requirement for ongoing in-career development for teachers, especially given the fact that many of the teachers are teaching for a good number of years. It is also evident from the results that there is a need for teaching resources such as textbooks, DVDs and interactive computer games to be developed in order to enhance the teaching of this area. Furthermore, in order to encourage engagement in active learning methodologies, nutritionally balanced recipes suitable for use in the classroom situation as opposed to a kitchen need to be developed and disseminated.



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BUILDING NORTH SOUTH LINKS IN WHOLE COLLEGE INITIATIVES IN GLOBAL JUSTICE EDUCATION

Mr Brian Ruane, St Patrick's College, Drumcondra
Mr Gerard McCann, St Mary's University College, Belfast

There has been ongoing co-operation and a number of project related developments in North-South whole college initiatives in global justice education partnership. From the perspective of both participating colleges there have been several aspects of the global dimension in education that have been enhanced by this SCoTENs project. Most have been discussed between staff at St Mary's and St Patrick's and there is an ongoing dialogue around the formative nature of individual initiatives within the respective colleges. In the process of enhancing the links both colleges have now established resource centres that have material that is relevant to the project. Furthermore, there has been ongoing collaboration between staff on a number of issues relevant to global justice.

1. Following on from a joint college meeting at the start of the project to investigate points of co-operation, the colleges continued to adapt a number of modules to integrate the global dimension into the work schemes of the lecturers. Ongoing global justice elements include holding Global Days for students; promoting a number of Irish development non-governmental organizations; facilitating speakers on key development issues; and restructuring the St Mary's Geography of Global Development module for BEd First Years to include case studies of Irish development NGOs working in the field of global justice.
2. The colleges have both been working on research initiatives that have global justice at the core of their work. This has included the production of a textbook, 'From the Local to the Global', which can be utilized for teaching undergraduates and involves academics from both North and South, Irish development NGO representatives and academics from developing countries. There is also current work on an edited collection on 'Issues in Economic Development in Sub-Saharan Africa' which will be published early next year in collaboration with the University of Zambia. The research aspects of St Mary's work in this area have been integrated into the aim of instilling a global dimension in education in the college, and an associated aim is to enhance the partnership with St Patrick's.
3. St Mary's have opened a model of work based learning which includes a global justice option. This has been in part based on the current programme in St Patrick's and includes sending second year undergraduate students to developing countries to work on education projects or in schools. Currently, there are a number of St Mary's students working with the Kabwata Orphanage, the St Lawrence Centre (Misisi), and St Catherine's Primary School in Lusaka, Zambia. Partnerships have built up within the context of the Global Justice project and have been influenced by the St Patrick's model. St Patrick's is also working in Lusaka where students are sent out to assist in school teaching.
4. There is a scheduled exchange in October 2010 and February 2011 where third year students at St Mary's will participate in a study visit to St Patrick's to investigate the ways in which global justice education can influence teacher education on a north-south basis.





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The students at St Patrick's will reciprocate with a visit to Belfast. Both visits will include lectures by NGO representatives, government and university speakers, and learning about the issues pertinent to global justice within the context of education. It will also be a space where the students are able to get together to discuss and debate concerns and topics that are relevant to them within the remit of the project.

5. In June 2010 there was a meeting in St Mary's to discuss progress in the project and to assess the ways in which the embedded aspects of this project can be enhanced as a core aspect of modular review in the coming year. It was also an opportunity for lecturers involved in this project to compare modules and working practices around the whole topic of global justice.



Sectoral Conference Reports 2008-2009



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LANGUAGE EDUCATORS CONFERENCE

Dr Eugene McKendry, Queen's University Belfast
Mr Patrick Farren, NUI Galway

Background

Modern Languages (ML) education (including Irish) constantly swings between states of concern and optimism. The take-up of languages in our schools has fluctuated, but the trend on the whole is downwards. The introduction of the Revised Curriculum in Northern Ireland in September 2007 makes ML optional at Key Stage 4, which will severely affect numbers as has been the case in Britain where the numbers taking modern languages have fallen off alarmingly since KS4 languages became optional in 2002 (see <http://www.cilt.org.uk/research/language/trends/index.htm>).

In Britain languages in the primary school have been promoted in recent years in order to offset this trend and motivate pupils by an early start in languages, but this may be placing too great a burden of expectancy on the primary sector. Nevertheless, the growing support for primary languages, north and south, is important and will develop. The primary and post-primary ML projects in the Republic have done much to increase diversification of provision (<http://www.ncca.ie/index.asp?locID=347&docID=-1>), but this also raises the question of the relationship between the provision of English, Irish and foreign languages. Diversification has also been an area of particular focus in Northern Ireland (Neil & McKendry, 'Diversification and other aspects of Language provision in the Lower Secondary School in Northern Ireland'. In *Language Education in Ireland: current practice and future trends*, eds Gallagher & Ó Laoire, Irish Association for Applied Linguistics-IRAAL, 2006).

The traditional view of diversification, focusing on Irish and the main European and world languages, must, however, be reconsidered in light of the new demography and linguistic landscape of Ireland, with the recent influx of large numbers of immigrants speaking languages not traditionally offered in our schools. This new linguistic diversity is an enriching challenge that must be taken aboard in ML provision and training. Greater awareness among ML providers of, and collaboration with, English Language and English as an Additional Language (EAL) is also required.

The increasing linguistic awareness among the population, north and south, is welcome. Allied to this is the recognition of Irish as a working language in the EU and the Languages Act in the Republic, both of which are essential moves to normalising the situation of the Irish language. A comparative overview of national language policies internationally would be welcome and informative. Recent years have seen the emergence of Language Strategies in these islands. Language strategies have been produced for England, Wales and Scotland. A Northern Ireland Languages Strategy is in preparation, as is a University languages strategy in Queen's University Belfast, providing a possible replicable model for other institutions. The Council of Europe Report on languages in the Republic and papers such as Prof. David Little's report on languages in the post-primary curriculum point towards similar strategic developments in the Republic (<http://www.ncca.ie/uploadedfiles/Publications/LanguagesPaper.pdf>).





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Allied to these developments are the Revised Curriculum in Northern Ireland and the NCCA's Primary, Junior and Senior Cycle reviews in the Republic, with their respective demands on teachers and teacher educators.

These issues should all be considered in the broad context of recent developments at national and European level in the area of language policy, provision and support. The European Union considers modern languages among the basic skills or key competencies required by all its citizens, and is concerned to promote excellence in the teaching and learning of languages as well as greater diversity in the range of languages available to learners in the Member States, as witnessed by the recent European Commission Action Plan, *Promoting Language Learning and Linguistic Diversity: An Action Plan 2004-2006* (<http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2003:0449:FIN:EN:PDF>).

Conference

The conference was held on 13-14 November 2009 in Queen's University Belfast and was attended by modern language specialists from all the Irish universities, north and south, and most of the colleges of education. Among the keynote speakers were Dr Barry Jones of Homerton College, Cambridge, who spoke on the European Portfolio for Student Teachers of Languages, and Edmund Ellison, who spoke on ICT and beginning teachers in modern languages.

Full report on <http://scotens.org/wp-content/uploads/language-educators-report.pdf>



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ALL-IRELAND DOCTORAL RESEARCH CONFERENCE IN EDUCATION

Ms Deirdre McGillicuddy, University College Dublin

Mr Declan Fahie, University College Dublin

Ms Elizabeth O’Gorman, University College Dublin

Dr Dympna Devine, University College Dublin

Ms Nicola Ingram, Queen’s University Belfast

Mr Conor McCrory, Queen’s University Belfast

Ms Donna Kernaghan, Queen’s University Belfast

Professor Jannette Elwood, Queen’s University Belfast

EXECUTIVE SUMMARY

Organisation and planning

A joint committee was established between the Schools of Education at University College Dublin and Queen’s University Belfast to plan and prepare for the conference. This consisted of two academic leaders (Professor Jannette Elwood QUB and Dr Dympna Devine UCD, along with three doctoral students from each School). Two main meetings were held in October 2008 in UCD and January 2009 in QUB. The structure of the conference was planned jointly, including allocating responsibilities for roles related to the conference, setting up a web-link, decision on conference theme and securing a keynote speaker. A third video conference meeting was held in advance of the conference in May, and there was considerable liaison between committee members by email in the interim. Considerable time and effort was put into contacting the doctoral co-ordinators across all relevant higher education institutions north and south. Anecdotal evidence suggests that ‘word’ has filtered through to students across the colleges of the success of this first all-Ireland conference, which we hope will lead to an even higher rate of participation in the second such conference in May 2010. Considerable learning was undertaken by students in this committee, and this learning is being transferred to the planning committee for the next conference in May 2010, as two of the previous members have been asked to remain on.

The conference itself

The conference, which took place on 19 May 2009 in UCD, was a tremendous success in that presentations were well received and supported and there was a wonderful buzz and energy as students moved between sessions. Chairing of sessions was shared between committee members and academic staff. Discussion at end of the sessions was lively and engaging. Accompanying this final report is the conference brochure which was provided to each of the 47 participants. This gives a full indication of the spread of topics and the numbers of students involved. These were complemented by an excellent key note address by Professor Peter Mortimore. Also attached with this final report is a print out of the feedback received through a follow up survey using Monkey puzzle, which is being incorporated into the planning for the conference in May 2010.

Finance

A summary outline of expenses incurred is also attached. The dispersal of bursaries was challenging and done centrally through the accounts department in University College Dublin. The total expenditure was €3628.61 of which €1866.85 relates to bursary





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allocations to 18 students (a further 3 bursaries were provided through the ESAI). Please note that these bursaries have been allocated as 'visiting lecture' expenses by accounts in UCD but all funding was awarded on the basis of submission of receipts for cost of travel and accommodation. The remainder of the costs relate to keynote speaker (travel and one night accommodation) and catering over the two days (€1761.76).



Research and Exchange Project Reports Executive Summaries



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6th NORTH SOUTH STUDENT TEACHER EXCHANGE – EVALUATION REPORT (full report)

Dr Maeve Martin

Introduction

In winter and spring of 2010 19 student teachers from the six colleges of education in Belfast and Dublin¹¹ participated in the sixth North-South Student Teacher Exchange project. This exchange involved them in carrying out their teaching practice placements, over a three week period, in host primary schools in the jurisdiction other than that in which their parent college of education was situated. In other words, students from the two colleges of education in Belfast went to Dublin and students from the four colleges of education in Dublin went to Belfast to fulfil the very important component of their professional formation i.e. 'teaching practice'. These 19 students were following in the footsteps of 123 other student teachers who had participated in a similar exchange in the years 2003-2009.

Such has been the popularity and the worth of this exchange project over the years, that in 2008 the Standing Conference on Teacher Education North and South (SCoTENS) responded to a request to fund the project at a time when EU Peace funding for it had expired. The project represents the coming together of a number of key collaborators: SCoTENS is the funding agency; the Centre for Cross Border Studies (CCBS) in Armagh manages the project; the Directors of Teaching Practice in the six participating colleges implement the running of the project, and the host schools accommodate the student teachers by making their classrooms, their teachers, and their pupils available to the visiting students. Without goodwill and hard work on the part of all the key players, the project could not have matured and flourished in the ways in which it has since its inception. There was a glow about the project in 2010 that the evaluator did not detect in previous phases.

Aims and objectives

In broad terms, the exchange project aims to create mutual understandings and refined sensitivities among a group of student teachers with regard to important cultural issues on both sides of the border in Ireland. Though it is 12 years since the end of the period of marked conflict in Northern Ireland, one still can find levels of ignorance and prejudice about important issues like religion, political allegiance, socio-economic status, neighbourhood factors and attitudes which are prevalent in society in each jurisdiction. The project has sought to give groups of bright young students the opportunity to go and experience life as lived in the 'other' jurisdiction, and thereby gain insights that lead to accurate knowledge and informed perspectives on matters of concern.

It is the vision of the project that enduring positive outcomes will ensue from it. Quite apart from the pedagogic element, these positive outcomes include an orientation towards peace and reconciliation, a respect for difference, a reluctance to stereotype, and an elimination of destructive prejudice. Teachers occupy a central role in the lives of many impressionable

¹¹ The six colleges participating in this exchange were Stranmillis University College and St Mary's University College (both Belfast); and St Patrick's College, Drumcondra, Marino Institute of Education, Froebel College of Education and Church of Ireland College of Education (all Dublin). Mary Immaculate College, Limerick, did not participate this year.





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young people, so the hope is that there will be a multiplier effect of the good ensuing from the project. In this way, there is the potential for its beneficiaries to act as creators of a more tolerant and peaceful society North and South. This may not occur in a structured way or in an overt fashion throughout their subsequent years in the classroom, but rather in a subliminal and incidental way, as their experience of the exchange is embedded into their own way of teaching and being. As influential and responsible members of their communities, they will have the scope and privilege through their work in schools to shape attitudes and develop patterns of behaviour in their young learners.

The exchange project has a clearly delineated set of objectives directed at both participating students and at their lecturers in their Colleges of Education. Taken as a whole, these objectives have the capacity to further the overall aims of increased understanding and the shaping of informed perspectives that are compatible with tolerance, respect and reconciliation. They are as follows:

Objectives for participating students:

- To broaden students' experience of teaching practice by undertaking part of it in the neighbouring jurisdiction on the island of Ireland;
- To increase the cultural sensitivity of student teachers by engaging educationally and socially with other students, teachers and pupils in a cross-border, cross-community context on the island of Ireland;
- To enable students to experience the education system of the neighbouring jurisdiction;
- To enable students to explore similarities and differences in curriculum provision and approaches in a cross-border, cross-community context;
- To encourage adaptability, reflexivity, confidence, and personal/professional self-awareness.

Objectives for participating lecturers:

- To provide opportunities for Colleges of Education on the island of Ireland to affirm and respect cultural differences, and to promote positive attitudes towards diversity;
- To develop a model of professional practice in response to cultural diversity, by supporting students who engage in a period of teaching practice in the other jurisdiction;
- To develop a deeper sense of community among teacher educators on the island of Ireland that recognises the contributions of different cultural and religious communities;
- To increase lecturers' familiarity with the variety of curricular programmes and methodologies north and south;
- To explore and develop strategies and approaches to practice in Colleges and Universities, north and south, and to contribute to the development of a culture of inter-college collaboration throughout the island.

In order to investigate if the above objectives were met, the evaluator engaged in a number of approaches. These included the compilation of questionnaires, participant observation, face to face interviewing, analysis of documents and discussion with key informants. The data culled from these sources indicate that the objectives have indeed been met. There is evidence that the project has taken hold over the years and the concerns now articulated by the students prior to the exchange are more professionally focussed and culturally driven than was the case in earlier years, when their worries were about travel and financial arrangements and missing their families and friends, i.e. issues of a personal rather than a professional or intercultural nature.



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The actual exchange when it occurs every spring is the culmination of four-five months of detailed and careful preparation. Added to the planning and collaboration that takes place among the organisers and the participant colleges, there is a lore that has built up around the exchange among the student body in all the colleges. The reputation of the exchange is that the experience is well worthwhile both personally and professionally. Students are keen to become involved. Many are responding to a personal challenge that is encompassed in an enriching educational challenge.

What follows is an account of how the project unfolded in 2010. Each step in the process has been monitored and evaluated.

Orientation Day

Prior to the actual exchange, an Orientation Day took place in the Church of Ireland College of Education in Rathmines, Dublin on 27 January 2010. The formal business of the day opened with an address of welcome from Dr. Anne Lodge, Principal of the college, in which she endorsed the commitment of the colleges of education to the exchange project. The Orientation Day was an important milestone as it set the tone for what was to follow. It was the first occasion when the participating students met their peers from the other colleges, their Directors of Teaching Practice, the personnel from the Centre for Cross Border Studies, and students who had been part of the exchange in previous years. A representative from the students' unions in hosting Belfast and Dublin colleges also attended, as the host students union plays an important part in integrating the visiting students during their period of teaching practice.

The overall objective of the Orientation Day was that the students would have a clear overview of the exchange, and would have any questions or concerns addressed. They would also start on a bonding process with their peers from the other colleges. A detailed booklet containing relevant data on all aspects of the exchange was prepared in advance by the Centre for Cross Border Studies. It dealt with the logistics, the aspirations, and context of the exchange.

There were presentations from students who had participated in the exchange in previous years outlining their impressions, and their evaluations of the experience. Their contributions proved very popular with the new participants as they tapped in to their concerns and dealt with these in a credible and authentic fashion. Also two students gave an overview of the education system in the different jurisdictions. These presentations triggered questions and comment. The discussion which followed helped to minimise anxieties among the students as matters were clarified for them.

Some small group sessions were built in to the day. The groups comprised a mix of students from imminent and past exchanges. A Director of Teaching Practice also joined each group. In these groups they teased out issues ranging from lesson planning, to curriculum, to learning intentions, to access to resources, to interpersonal dynamics. A striking feature of the small group sessions was the quality of the exchanges among these young students who had never met before, but who shared professional concerns and aspirations. There was a very good atmosphere in the groups, and an orientation to be open, mutually helpful and respectful. The work seemed to augur well for the actual exchange.

The qualitative data gathered through questionnaire completion in the course of the day





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showed remarkable similarity between respondents from both jurisdictions. They speculated on their professional competence and questioned how they would best acquit themselves in their new environment. Their motivation for participation in the exchange was evident. It was based on their curiosity about the culture and the education system in the 'other' jurisdiction, and on a wish to enhance their range of teaching strategies. They also calculated that involvement in the project would make them better rounded professionals. It was very encouraging that their perception of the project was one of an educational experience that would be developmental and enriching.

In contrast with previous years, all the participants from both jurisdictions had visited the other Irish jurisdiction at least once, if not on a number of occasions. They admitted to not knowing much about the political or educational system in the other jurisdiction, nor about the pressing issues of the day. All anticipated a focussed but worthwhile experience. At no point was there mention of a social or fun dimension to the forthcoming exchange.

The exit questionnaire administered towards the end of the Orientation Day indicated high levels of satisfaction with the day. The students expressed the view that they now felt more comfortable with the prospect of the exchange. They had made good links with their fellow students and they found the sharing of ideas and concerns of great help. Of particular value to them was hearing first hand the experiences of the students who had been on the exchange in a previous year. They were appreciative of the organisation and of the relaxed but purposeful atmosphere which characterised the day.

Actual exchange

The students spent three weeks in their host jurisdiction between 8 March and 26 March. During that period they were placed in primary schools in Belfast and Dublin which had been selected for them by the Directors of Teaching Practice in their host colleges. The accessing of schools in which to facilitate the students' teaching practice must not be taken for granted. It is a tribute to the good relationships which the Directors have with the local school principals and teachers, as well as testimony to the good work carried out by previous exchange students. Prior to taking up their role in the host school, each student spent a day in the allocated classroom observing and discussing with the class teacher expectations for the three weeks block teaching practice which would follow.

In the course of the placement, the students were visited by supervisors both from their own 'home' college and their host college in order to assess the students' competence. The instrument used for this was that used in the students' parent institution. In all, a student was supervised twice in the course of the exchange. The grades obtained formed part of the ongoing formal assessment of a student's progress on his/her teacher education programme. Throughout the time in the host jurisdiction the students lived in residences attached to local colleges participating in the exchange. On 4 May, following the exchange, an evaluation or debriefing day was hosted by Stranmillis University College in Belfast. On that day, all aspects of the exchange were explored. The following section of this report documents the data gathered on that day by the project evaluator.

Evaluation Day

As with the Orientation Day, advance planning for this day set out to optimise the time spent in hearing the voice of the students and their Directors of Teaching Practice. The day commenced with a welcome from the Stranmillis DTP, Ms Gail Eason. Questionnaires



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had been prepared which were distributed, and the data from these supplemented the discussions and the focus groups' exchanges which formed part of the day. The discussions picked up on issues that has been raised at the Orientation Day in Dublin in January. This method was adopted in an effort to achieve an internal coherence within the overall reporting on the 2010 exchange.

Professional gains

The first item in the questionnaire asked the student respondents to identify the professional gains which they derived from the exchange. These were varied, but each and every one is important to the professional formation of a teacher.

- A knowledge of curriculum of the host jurisdiction, and an appreciation of the 'home' curriculum through critical comparison of the two
- A growing competence in the teaching of different ability groups, i.e. becoming familiar with the key skill of differentiation
- A new approach to planning derived from working collaboratively with peers from other colleges
- A commitment to nourish an ethos of respect having seen the positive outcomes that characterised a school that fostered such an ethos
- A refinement of teaching strategies and an extension of existing teaching techniques
- A new perspective on how to integrate subject areas across the curriculum, accompanied by an appreciation of the integrated aspects of knowledge
- A growth in confidence that came from taking on new responsibilities and trying out new methodologies that were modelled in the new environment
- A new competence in the use of ICT to support teaching and learning
- A sense of a developing identity as a teacher; feeling like a 'real' teacher
- A 'feel good' factor that came from building good relationships with a set of new teachers and new pupils in a new environment.

It is doubtful if the same gains would have occurred through a block teaching practice carried out in a student's home environment. One northern student wrote as follows:

'The southern teaching experience provided what I would class as a 'real' experience of teaching where we were left to deal with all aspects of daily classroom management. This was a great experience and developed my planning skills. I grew in experience and being able to judge lessons/activities and timekeeping more effectively. It gave me a better sense of the true roles and responsibilities of a teacher beyond the lessons. I became more flexible and more adaptive in my approach'.

It is impossible to calculate the value of this professional development reported by the exchange students. Some student teachers may never reach comparable levels of insight or self awareness in the course of the pre-service training. The questionnaire data suggest that the skills that were honed during the exchange were transferable, and the students writing about them looked forward to embedding them into their teaching in the long term. For some students, there was the opportunity to teach in a faith school different from the faith to which they belong. 'I developed knowledge and understanding of the Catholic faith as I come from a non-Catholic college. I learned important things and appreciated them in a way that could not have happened were it not for the exchange'.





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The findings show that not all of the gains are quantifiable, but are more qualitative or intangible. But they are nonetheless of central importance as they are maturational and educative in vital ways. Teachers are recognised as significant role models in the lives of those they teach. The more sensitive they are to difference, the more informed they are on issues, the more they teach with and about respect, then the greater their influence is for good. In a fundamental way, it is the intangible gains that make this student teacher exchange such a worthwhile initiative.

Personal gains

In many ways it is difficult to differentiate between the professional gains and the personal gains, as inevitably the two are interlinked. The professional gains impact on the sense of personal worth of the individual and create a deepening sense of what it really means to be a teacher and role model. The students cited the following as personal gains that resulted from the exchange:

- A greater sense of independence
- A new network of friends from both jurisdictions
- A new perspective on work/life balance attributable to sharing with others, and learning from them how to work and play in healthy measure
- An increase in self-esteem that came from succeeding out of one's comfort zone
- A confidence that one could cope with the unfamiliar
- A sense of making a worthwhile contribution.

During the Evaluation Day there was a genuine sense of collegiality and camaraderie among the participants. They valued the exchange as a unique experience, and some of this is caught in the following from a southern student in her response to the 'personal gains' section of the questionnaire:

'I value the friendships with people from other teaching colleges. It was an incredible experience living together, supporting each other and sharing ideas. We will all greatly miss this on the next teaching practice. Being acquainted with people from the North in both the school, college and socially was a fantastic and unforgettable cultural experience'.

When the responses from the Evaluation Day are set against the apprehensions expressed on the Orientation Day, it is remarkable how the tension and fear that were present before the exchange had all evaporated, and were replaced by warmth, confidence and enthusiasm among the participants.

Similarities between teaching practice experiences

The students were asked to indicate similarities and differences that they observed during their teaching practice in the host jurisdiction. Firstly, they dealt with the similarities, and reported the following:

- Student teachers are supported in their host schools both north and south.
- Schools are very much part of the local community, and are linked to local projects and sporting activities in the neighbourhood.
- Class sizes and subjects taught seem to be more or less similar north and south.
- Teachers north and south want only the best for their pupils and are dedicated to achieving this for them.



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- Schools north and south are lucky to have outstanding principals who lead their schools forward.
- Schools north and south foster a strong moral ethic, and are child-centred to varying degrees in their approach.
- Pupils north and south are keen to please their teachers.
- Pupils north and south respond to imaginative teaching, love to learn new things and acquire new skills.

It is interesting that all of the similarities cited by the respondents, both north and south, were positive. There was not one negative comment or one instancing of a similarity that was anti-educational or discouraging. This may be due to the fact that the students were placed in beacon schools that were selected by the Directors of Teaching Practice because of their excellence. However this is unlikely to be the case as it is not easy to find schools that are readily willing to host students. Teachers like to retain control of their classes, and can be ambivalent about handing them over to student teachers for a three week block period. It is indeed very heartening to find that the norm is one of progressive, hardworking, and welcoming schools, north and south. The pupils too, like the adults in the project, seem to have affirmed the student teachers in their responses to their efforts. One northern student writing about her Dublin school wrote as follows:

‘What is really obvious is that children are children no matter where you are. They love to learn and thrive on interesting and engaging lessons. Our revised curriculums aim to boost this and capitalise in terms of improved learning. The South like the North is no different in their aims. They try to be as innovative and creative in their methods as possible and the approach is intentionally child centred’.

The assessment of the relative merits of pedagogical approach and curriculum content found in both jurisdictions is obvious on the part of this respondent. Her contribution is echoed in the responses of many of her fellow exchange students. Here is an example of a southern student’s response:

‘Children both north and south are all eager to please their teacher. They all want to work hard and learn to their best’.

Let us turn now to the differences observed by the students:

Differences in teaching practice experiences

- The length of lesson time was found to be longer in the North, with pupils given lots of opportunity for hands-on activity throughout a lesson.
- There was more reliance on use of textbooks and worksheets in the South compared to the North.
- There was a greater emphasis on literacy and numeracy in the North compared to the South.
- There was more emphasis on art and drama in the South than in the North.
- There was more group work in the North than in the South.
- There was greater access to a wide range of resources in the North compared to the South.
- There tended to be an exam orientation in the North that was not a feature in the South.
- There was a wide range of club or hobby based activity for each pupil for one hour each day in the North - no such choice was built in to the school day in the South.





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- The expectation that student teachers on placement teach for a full day in the South contrasted with the experience of students on placement in the North, who only taught three lessons each day.

In pointing out these differences, the respondents argued the relative merits of these. For example, one northern student placed in a Dublin school commented on the relative lack of resources as follows:

‘The northern schools are definitely more fortunate with access to resources, but again the lack of resources in the South forced me to be more creative in my teaching. It’s not necessarily a drawback to have fewer resources and less technology to hand’.

A student from the South was so impressed by the choice of activity that each northern pupil could choose from for one hour at the end of each day, she resolved to introduce this to her school when she qualified as a teacher.

Knowledge of the education system in the host jurisdiction

The next item in the evaluation day questionnaire sought information on the students’ knowledge of the education system in their host jurisdiction following their exchange. The students showed considerable interest in the system and curriculum in the other jurisdiction. A southern student wrote:

‘I was lucky enough to be involved in the weekly planning. This allowed me to explore the other curriculum further. I observed how some subjects were of key importance and how others were integrated by a common topic. Previous to this exchange, I had absolutely no idea how the education system up North worked. I feel now that I have a knowledge of this system which can be compared with my own in terms of aims, objectives and the level of knowledge that is attained in primary schools’.

There was unanimous agreement among all of the students that they had learned a great deal about the respective systems. Here follows a sample of observations:

- Both education systems seem to incorporate the same principles and to attach importance to the same content knowledge and skill acquisition.
- Northern Ireland schools place more emphasis on literacy and numeracy than do schools in the South. Because of this, pupils in the North seem to attain better in these areas than pupils of similar age in the South.
- The role of Irish is totally different in the two jurisdictions with Irish as a mandatory subject in the South.
- Parents seem to have more involvement in their children’s schooling in the South than in the North.
- Content coverage is checked or examined in a more comprehensive way by classroom teachers in the North. This was attributed to the role that the 11+ examination has played in the North.
- Thematic planning by a whole school staff is a feature of schools in the North but is not common practice in the South.
- Mandated time whereby northern teachers stay on in their schools to plan and collaborate when their pupils have gone home contrasts with the pattern in the South of teachers going home at the end of the school day.



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- The amount of time given over to the teaching of Irish and religion in schools in the South makes for less time than in the North to devote to the core areas of literacy and numeracy, and spoken and written language.
- Schools in the North tend to be academic in their focus while schools in the South focus more on the holistic development of the pupil.

Knowledge of the other culture

As one of the aims of the exchange was to heighten awareness of the host culture, an item on the questionnaire sought respondents' views on this. It was interesting that students from both jurisdictions found that there was basically little difference between the two cultures. Both sets of students felt very at ease in their new environment, but appreciated the opportunities to talk to local people and to have a discussion on issues that might be sensitive or not fully understood prior to their visit. Predictably, the taxi drivers, whom they met as they travelled, were willing sources of knowledge! Some extracts:

'Of course, I learned a lot about the culture. I can't put enough emphasis on the value of the cultural learning. The staff in schools were very welcoming and talkative so this helped learning. Even the taxi journey each day was a learning experience: taxi drivers had very interesting insight into the culture here'.

'I learned that despite the attitude and prejudices of the people down South towards the North, in general most of the fears were unfounded. I spoke to many people over my three weeks, from taxi drivers to teachers, and found them just as curious about my culture as I was about theirs, and willing to answer my questions'.

In terms of developing a closer knowledge of the host culture, the exchange seems to have worked well. This student's response is typical:

'Yes, absolutely, I learned. The opportunity to learn and gain an understanding of the culture has been invaluable. There is no better way to understand another culture than living and working in it'.

Would you take up employment in the host jurisdiction?

The students were asked if they would consider working in their host jurisdiction when they qualified as a teacher. Many would grasp the opportunity to do so, while others offered persuasive reasons for not. Here is a sample of the responses:

'Yes, I would love to gain more experience of working in Belfast. It is a great city and my host school was fantastic'.

'Yes, I would love to teach in Belfast and especially in my host school'.

'Yes, I thoroughly enjoyed teaching in the South. I would love to teach in the South if the opportunity arose. It has a slightly more laid back feeling in schools and I love how the schools are so immersed in their culture in terms of language etc. It was refreshing to experience in action a school ethos that really does develop the children holistically within their culture...something which is not always apparent in the North'.





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For the students who were ambivalent about the prospect, their reasons were in some cases attributed to the curricular differences which they observed. The following extracts from the questionnaire item capture this:

'I think I prefer a more child-centred curriculum and a stronger focus on a broad range of subjects rather than such an academic curriculum based on integrating everything into literacy and numeracy, so for this reason, I 'd rather teach in the Republic. However, based on my cultural experience I would be more than willing to live in Belfast'.

Like some of her southern peers, this next student was influenced by the strong focus on some curricular areas in the northern curriculum:

'It would be a difficult decision for me! The thought of having to teach so much English and Maths scares me a little, but the wonderful resources in the northern schools make it all attractive'.

In summary, there was a lot of openness to the prospect of teaching permanently in the host jurisdiction. The reasons for hesitation on the part of few respondents were linked to professional or domestic concerns, and in no way linked to prejudice or a sense of alienation.

Dissemination of the exchange experience

The responses to this item indicated that the students, both north and south, were keen to share their enthusiasm for the exchange among their peers and their wider circle of friends and family. They also expressed a wish to disseminate the learning from the exchange. Their colleges had in place plans to allow them to formally present their experiences to other students. Most impressive was the commitment to build into their teaching new skills and different methodological approaches that they had acquired while on the teaching practice in the other jurisdiction. The students were clearly harvesting their experiences, and planned to weave their newly acquired approaches, as appropriate, into their repertoire of teaching skills and their content knowledge in the classroom. Many of the responses indicated that they would incorporate exercises about the 'other' culture in to their worksheets and discussions with their pupils. Such was their regard for the exchange, and the professional and personal rewards that it brought, that all were committed to encouraging other students to participate in the exchange, should the opportunity arise for them in the years ahead.

Maintaining links

Without exception, all of the students reported that they intended to maintain contact with those people with whom they had interacted during the exchange. For many, this would involve links with students in colleges within their own jurisdiction, but also links with host schools. Many wrote of the ongoing contact that they had maintained with their host school and their intention to collaborate on ICT projects in the future. The students, comfortable as they are with modern modes of communication, were using email and mobile phone links to retain their links and strengthen their cross cultural networks.

There was genuine evidence of excellent relationships having been formed not just among the young student teachers, but also with their host schools: staff and pupils alike. Many spoke of a 'night out' together for the exchange students, but there was also a recurring theme of maintaining professional links. A typical response was:



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'Yes, specifically with the people I have met through my school and college residence. Got on very well with fellow student teachers in the South and North, and it's invaluable to learn collaboratively and 'bounce' ideas off each other. We remain in touch'.

Another southern student wrote:

'I have been keeping in contact with my host school and my class teacher through e-mail. It is great to know how my class are getting on'.

It is interesting to note that this student referred to the class of pupils in Belfast as 'my class', though she would have been with them for a relatively short period of time. This immersion in the experience shone through all the data collected as part of this evaluation.

How could the exchange be improved?

Students were asked if they had suggestions on how the exchange could be improved. In the main, the view was that the exchange had gone smoothly, but it could be even better had the following been built in to it:

- An added day for observation in the host classroom;
- A student from both jurisdictions to speak about their experiences of the exchange during the Orientation Day (only a student from the South spoke at the Orientation Day in Church of Ireland College of Education in January 2010);
- A social event, like a dinner, to be planned for the first weekend of the exchange in order to give students an opportunity to meet and debrief at a sensitive point in the exchange;
- A more suitable date for the Evaluation Day – the early May 2010 date was right in the middle of examinations, and was too removed in time from the actual exchange;
- A pairing of a visiting student with a resident student in each of the colleges in which the students live while on teaching practice;
- A list of all participating students with their emails and mobile telephone numbers to be distributed on Orientation Day;
- A wider access to the exchange so that more students could benefit from what is a 'once in a lifetime experience'.

Spontaneous comments

Finally the students were asked to give open-ended comments on the exchange. Their responses were ones of gratitude and appreciation. They expressed the view that they had been involved in a project that had enriched them both professionally and personally. They wanted to spread the word about the project and to recommend it to other students. They wrote very warmly about their host schools, teachers and tutors. Like students on previous exchanges, they stressed the importance of standardising the evaluations of their teaching practice by the supervisors who visited them.

Some extracts from the questionnaire responses capture the thrust of the responses:

'Excellent. Thank you for giving me this opportunity. It will stay with me for the rest of my teaching career. The children I teach will be better prepared to meet the challenges of life because of my participation on the project'.

'I would not hesitate to recommend this programme to fellow students. It is an excellent opportunity for professional and personal development. The project was very well supported and funded'.





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The data reported above, from both the Orientation Day and the Evaluation Day, have been distilled from the field notes taken by the evaluator who was present throughout both days, and from the questionnaires which were prepared as an integral part of the evaluation process.

The Directors of Teaching Practice

The unquestionable success of the exchange project owes a great lot to the unstinting commitment and solid work of the Directors of Teaching Practice in the participating colleges of education. It is true to say that it could not work without them, as they are uniquely placed, not only to select a cohort of eager students each year, but also to establish a direct line between the visiting student teachers and the host schools. This they have done by placing the visiting students in a finite number of accommodating schools in their own jurisdictions. The added task of finding classrooms for visiting students is not as easy as it may appear.

Since the inception of the North-South Student Teacher Exchange with EU Peace funding in 2002, there has been a lot of interaction and sharing of professional activity among the Directors of Teaching Practice in the participating colleges, north and south. The data gathered from them for this evaluation indicate that they have worked very effectively together as a team, with the values and aspirations of the exchange underpinning their commitment. The DoTPs recognise how the project enriches their students; how it broadens their perspectives and extends their competence as future teachers. They also appreciate how they as teacher educators have been enriched by the project. They have close knowledge of how they each work in their respective colleges. Their joint endeavours have led to the writing of research papers and to presentations at education conferences abroad. The mutual understandings and respect that they all bring to their task seems to cascade down to the students. A very good atmosphere has built up around the exchange and the level of care and support for all involved is exemplary.

The logistics of the exchange and its implementation are carried out by all in the midst of a very busy and demanding schedule. Yet without exception all the stakeholders are of the view that, if possible, the project should be retained, as it constitutes a valuable educational experience for the student teachers. Here is what the Directors of Teaching Practice think about the continuation of the initiative:

'I strongly recommend the development of the project and its integration into teacher education programmes North and South'.

'There are enormous benefits for students and DoTPs alike'.

Sensitive to the economic realities, another Director wrote:

'I feel it has been a useful programme and all involved have a lot to learn from it. I hope that it does not become a casualty of the cuts that are on the way for all of us. Often schemes like this are perceived as 'luxuries' rather than 'necessities' in times of austerity'.

Conclusion

It is clear from the feedback on the 2010 exchange that it has been an unequivocal success. It is also clear that the aims and the objectives of the exchange have been met. The exchange has taken hold in the calendars of the colleges of education, and the goodwill of the key



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players associated with it has been maintained. The students who are the beneficiaries take the exchange very seriously indeed and apply themselves to it in a conscientious and open minded way. They are excellent ambassadors for their colleges and their jurisdictions. Their lives have been enhanced by the exchange in ways that may not be amenable to quantification or even description.

These students are motivated to meld into their work with their pupils in the years ahead the positive outcomes that have stemmed from their enriching experience. They will promote tolerance and respect, and seek to reduce prejudice in the fora in which they operate. Their stance will have an authenticity based on lived experiences. Their teaching strategies have been extended through observing how teachers working in a setting different from their own, and implementing a curriculum different from their own, go about their tasks. They have lived in surroundings unfamiliar to them and enjoyed and coped with the challenges that that entailed. For all of this they are the richer: more rounded professionals and more empathic human beings.

The exchange project caused these things to happen. Thanks must go to the funding agency, the Standing Conference on Teacher Education North and South (SCoTENS), who made this exchange possible, and in doing so helped develop a quality cohort of teachers whose current idealism is impressive in an Ireland not as upbeat as when they were pupils in primary school. The project has gone from strength to strength and has matured with the passage of time to become a really serious but enjoyable cross-border educational opportunity for its beneficiaries.

Though the project has been running now for six exchanges, it did not achieve its success and its acclaim among the education community without very considerable time and effort investment from all those associated with it. Tribute has been paid already to the Directors of Teaching Practice, but there are others who warrant commendation. These include, in particular, the director and administrative personnel from the Centre for Cross Border Studies. The Centre is in a way the 'clearing house' for the project. The Centre's director, Andy Pollak, is so persuaded about the capacity that the project can create for the betterment of society, north and south, that he has persevered with it, when somebody of less tenacity would have given up. He has stayed with the project and brought others on board to see it through, even in times of fiscal retrenchment.

The presidents and principals of the participating colleges of education have lent their support to the initiative, and have been invariably facilitative in a variety of ways that helped the project become a flagship cross-cultural educational initiative. Evidently, in large part it is in the host schools that the exchange is played out. Special acknowledgement must go to the schools' principals, their staff and pupils in both jurisdictions, who have welcomed the students, mentored them, and encouraged them to grow as young professionals entering a noble profession.

To all who were involved in the exchange, special congratulations on achieving its success with good humour, grace, patience, and attention to detail.





CONTRIBUTION OF PRIMARY SCHOOL PHYSICAL EDUCATION TO HEALTH ENHANCING PHYSICAL ACTIVITY

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Abstract

Objective: To assess the contribution of primary school physical education (PE) to current physical activity (PA) targets in nine-year old Irish children from the greater Belfast and Limerick areas.

Methods: 267 (115 M) children had their PA assessed on two weekdays using an Actigraph GT3X accelerometer. On one day the children had PE, while on the other they did not. The order of the PE day/non-PE day was randomised. Accelerometer PA data was converted to minutes of moderate and vigorous PA (MVPA) using the methods of Mattocks et al (2007). Standard anthropometric data (ht, wgt, skin-fold thickness) were collected from the children.

Results: All results mean, 95% CI. Children took more minutes of MVPA on PE days (38.6, 36.3-40.9), than non-PE days (27.7, 25.2-30.1). Boys accumulated more minutes MVPA than girls on both PE days (43.9, 40.0-47.9, versus 34.5, 31.9-37.0) and non-PE days (30.9, 26.4-35.5, versus 25.1, 22.5-27.8). Northern children accumulated more minutes of MVPA than Southern children on both PE (44.0, 40.4-47.5, versus 31.1, 29.2-33.1) and non-PE days (32.6, 28.7-36.5, versus 20.8, 18.9-22.8). PE days were associated with 10.9 (8.4-13.5) more minutes of MVPA than non-PE days. The difference in MVPA on PE days compared to non-PE days was greater for boys than girls (13.0, 8.2-17.7, versus 9.3, 6.6-12.0). 68 % and 56% of Northern males and 14% and 10% of Northern females fulfilled the current PA recommendations (60 mins MVPA per day) on PE and non-PE days respectfully. None of the Southern children studied fulfilled current PA recommendations.

Conclusions: PE makes a significant contribution to the daily MVPA of children. A large proportion of the children studied do not take sufficient MVPA according to current recommended levels for health.

Introduction

This study was initiated to explore the contribution of physical education to health enhancing physical activity (PA) in the context of primary schools in the greater Belfast and Limerick areas.

There is a well developed field of literature on the links between children's PA levels and risk factors for developing chronic diseases in adulthood (Boreham et al, 1997), and there is general agreement that PA is an important aspect of children's lives for optimum health (Dept of Health, 2004). What is less clear is the contribution of school PE to current PA guidelines, with some US reports suggesting that children are physically active for around 8.5% of time spent in PE classes (Simons-Morton et al, 1993). This is in spite of the widespread assumption that PE is an important factor in attaining PA recommendations for children (Dept of Health, 2004). In part, the limited data on the contribution of primary school PE to children's PA may be due to the well documented difficulties in obtaining adequately



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precise measures of children's PA as a consequence of children's sporadic intermittent activity patterns, coupled to limitations in children's ability to accurately recall patterns of PA (Freedson et al, 2005, Rowlands and Easton 2007).

To a major extent these issues have been overcome with the development of accelerometers to assess children's PA. Accelerometers are small, lightweight devices which continuously monitor and quantify movements children undertake using preset sampling epochs. The most widely used accelerometer for PA monitoring, the Actigraph (Actigraph, Pensacola, Florida), has been extensively validated in both adults (Welk et al, 2007) and children (Ekelund et al 2001, Mattocks et al, 2007, Sirard and Pate 2001). The current study was initiated to provide objective data on the levels of physical activity children attain during week days with and without PE, using Actigraph accelerometers.

Methodology

The purpose of the present study was to provide an objective measurement of the levels and patterns of physical activity among primary eight to ten year old children using accelerometers and from this data to explore the contribution that PE makes towards daily physical activity levels.

Research Design

The present study was conducted in Limerick during November and December 2009 and in the greater Belfast area from February to April 2010. Ethical approval for the study was obtained from Stranmillis University College Research Ethics Committee.

Participants

12 primary schools from Limerick and greater Belfast were selected to participate in the study with a target of assessing 150 children from each jurisdiction. The parents of all children who participated in the study gave informed consent for their child to participate; in addition the children were asked for their verbal assent to participate.

Anthropometric Measures

Anthropometric measures were employed to collect information on children's height, weight, body mass index (BMI) and sum of skin-folds in accordance with recommended procedures (Franklin 1995), before children were fitted with an accelerometer.

Height was measured to the nearest 0.1cm using a Leicester Height Measure. Body weight was measured in socks and normal clothing using portable electronic scales (Seca) to the nearest 0.1kg. This information was used to calculate body mass index (BMI). As children are still growing, adult cut points for normal weight, overweight and obesity are inappropriate. To control this BMI scores were converted to age and gender specific standard deviation scores (Cole et al 2000).

Skin-fold thickness was measured to the nearest 0.1cm using specialist callipers (Harpender Skin-fold Calliper) on the left side of the body at four sites: mid-biceps, mid-triceps, sub-scapular and suprailliac in accordance with recommended procedures (Lohman et al 1988). Skin-fold measurements were carried out twice to ensure reliability and accuracy (Ekelund et al 2001). The average of the two measurements was used.





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Assessment of physical activity

Children had their physical activity levels monitored using the uni-axial Actigraph (GT3X). These have been shown to be valid and reliable methods of measuring physical activity levels in children (Ekelund et al 2001, Sirard and Pate 2001). An Actigraph is a small (4.5 x 3.5 x 1.0 cm), unobtrusive, lightweight (43 g) accelerometer that allows data on the frequency, duration and intensity of activity to be collected (McClain et al 2008, Trost et al 2005 and Freedson et al 2005).

Children and parents/guardians were given verbal and written instructions on how to use the Actigraph correctly and complete the record sheet which recorded times when the device was put on and taken off and the reasons for doing so. This helped to increase reliability and identify any periods of inactivity during the day.

Children wore the Actigraph on an elasticated band on the right hip for a minimum of two consecutive days during waking hours (except when swimming or washing) with a minimum wear time of 12 hours. The Actigraph was set for each individual as instructed by the manufacturer and was programmed to collect data using 1 second epochs due to the typically sporadic and intermittent nature of children's activity, usually consisting of frequent, short bouts of high intensity (Stone et al 2009). Additionally, previous research has shown shorter epochs to give a more accurate assessment of PA in children (McClain et al, 2008).

The intensity of the activity was categorised using counts which were averaged over the defined epoch (1 second). Activity count threshold values were used to determine the amount of time children spent engaged in light, moderate and vigorous activity. Values selected were taken from Mattocks et al (2007) with the following thresholds used for accelerometer count output: < 200 sedentary; 200-3599 light; 3600-6199 moderate, 6200+ vigorous.

Half of the children had their physical activity levels monitored on a non-PE day first followed by a PE day, whilst the other half had theirs monitored on a PE day first followed by a non-PE day.

Teachers received guidance notes and were asked to get the children to put a note in their homework books to remind them to wear the Actigraph for the entire day, complete the record sheet and return the Actigraph at the end of the two days.

Data analysis

Minutes of time children spent in moderate and vigorous PA (MVPA) were compared on PE and non PE days for the whole group, for males and females and for children north and south.

Results

315 children (147 Southern, 168 Northern) completed the survey. Of these, 267 (112 Southern, 155 Northern) provided valid PA data. 57% of the children were female. Anthropometric data for the children is present in table 1.0. The mean (95% CI) age of the children was 9.4 (9.3-9.5) years. The main reason for the reduction in Southern children providing valid data was one school not undertaking any PE during the survey week due to adverse weather conditions. The other dropouts were a combination of non-compliance by the children (not wearing the device for sufficient time) or accelerometer malfunction.



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Table 1.0 displays mean (95% CI) for height, weight, BMI and sum of skin-folds for the total group, males and females, and children from the North and South. With the exception of sum of skin folds the children from north and south are broadly similar in terms of physical characteristics.

Table 1.0. Mean (95% CI) anthropometric data for children in the current study.

	Ht (cm)	Weight (kg)	BMI (Kg/m ²)	Sum of Skin-folds (mm)
Total Group (N=267)	136.5 (135.6-137.4)	33.9 (32.9-34.9)	18.1 (17.7-18.5)	35.7 (33.3-35.7)
Males (N=115)	137.2 (135.9-138.5)	34.5 (32.9-36.1)	18.3 (17.7-19.0)	34.6 (31.0-38.3)
Females (N=152)	136.0 (134.8-137.2)	33.5 (32.2-34.7)	17.9 (17.5-18.4)	36.6 (33.4-39.7)
North (155)	137.6 (136.4-138.8)	34.0 (32.8-35.3)	17.9 (17.4-18.4)	29.8 (27.7-32.0)
South (112)	135.3 (134.0-136.6)	33.8 (32.1-35.4)	18.3 (17.6-18.9)	42.8 (38.7-46.9)
Northern Males (N= 74)	138.6 (136.8-140.5)	34.8 (3.0-36.7)	18.1 (17.2-18.9)	29.7 (26.3-33.1)
Southern Males (N= 42)	135.3 (133.5-137.1)	34.0 (31.1-37.0)	18.4 (17.2-19.6)	41.4 (34.5-48.4)
Northern Females (N= 81)	136.7 (135.0-138.4)	33.3 (31.6-35.0)	17.7 (17.0-18.4)	29.9 (27.1-32.8)
Southern Females (N=70)	135.3 (133.5-137.1)	33.6 (31.6-35.6)	18.2 (17.4-19.0)	43.6 (38.4-48.9)

Children's PA levels

Table 1.1 displays mean (95% CI) for PA on PE and non PE days together with the difference between the two days for the total group, males and females and children from the North and South.

Table 1.0 illustrates that children accumulate more MVPA on school days with PE compared to non-PE days. On both days boys are more active than girls and boys experience a larger increase in MVPA on PE days. Children in the North accumulate more MVPA than children in the South on both PE and non-PE days, though the difference between the two days are broadly similar for the two genders north and south. The difference in children's MVPA north and south of the border may be related to differences in the ages of the children. The children in the North were older (9.9 (9.8-9.9) versus 8.9 (8.8-9.0) years). The children in the current study accumulated more MVPA than a large scale English study which employed the same methods to assess PA (Riddoch et al, 2007). Riddoch et al reported 11 year old children to accumulate 20 mins (males 25, females 16 mins) MVPA per day.

The modest increase in MVPA on PE days (circa 11 minutes) should be seen in the context of the daily target for MVPA for children of 60 minutes (Dept of Health, 2004) and the mean duration of PE lessons in the current study of 34.7 (33.8-35.7) minutes. That teachers achieve MVPA for approximately one third of the total PE time is probably realistic given that the lesson time includes time for changing and instruction/ organisation. It is of interest that



Table 1.1. Mean (95% CI) minutes of MVPA on school days with and without PE.

	Minutes of MVPA		
	PE Day	Non PE Day	Difference between PE and non-PE
Total Group (N=267)	38.6 (36.3-40.9)	27.7 (25.2-30.1)	10.9 (8.4-13.5)
Males (N=115)	43.9 (40.0-47.9)	30.9 (26.4-35.5)	13.0 (8.2-17.7)
Females (N=152)	34.5 (31.9-37.0)	25.1 (22.5-27.8)	9.3 (6.6-12.0)
North (155)	44.0 (40.4-47.5)	32.6 (28.7-36.5)	11.4 (7.3-15.5)
South (112)	31.1 (29.2-33.1)	20.8 (18.9-22.8)	10.3 (8.0-12.6)
Northern Males (N= 74)	49.8 (44.1-55.5)	36.1 (29.6-42.5)	13.7 (6.7-20.7)
Southern Males (N= 42)	33.7 (31.1-36.3)	21.9 (17.8-26.1)	11.7 (7.0-16.4)
Northern Females (N= 81)	38.7 (34.6-42.7)	29.4 (25.0-33.9)	9.2 (4.6-13.9)
Southern Females (N=70)	29.6 (26.9-32.3)	20.2 (18.1-22.3)	9.4 (7.0-11.8)

the children do not compensate for the additional MVPA associated with PE by displacing MVPA which normally occurs during other times of the day. This is in contrast to the work of Mallam et al (2003), who suggested increasing the participation of children in PA during school displaced PA which occurred at other times.

Percentage of Children achieving current PA recommendations for health on PE and non-PE days

Figure 1.0 (below) shows the percentage of children achieving 60 minutes of MVPA on PE and non-PE days.

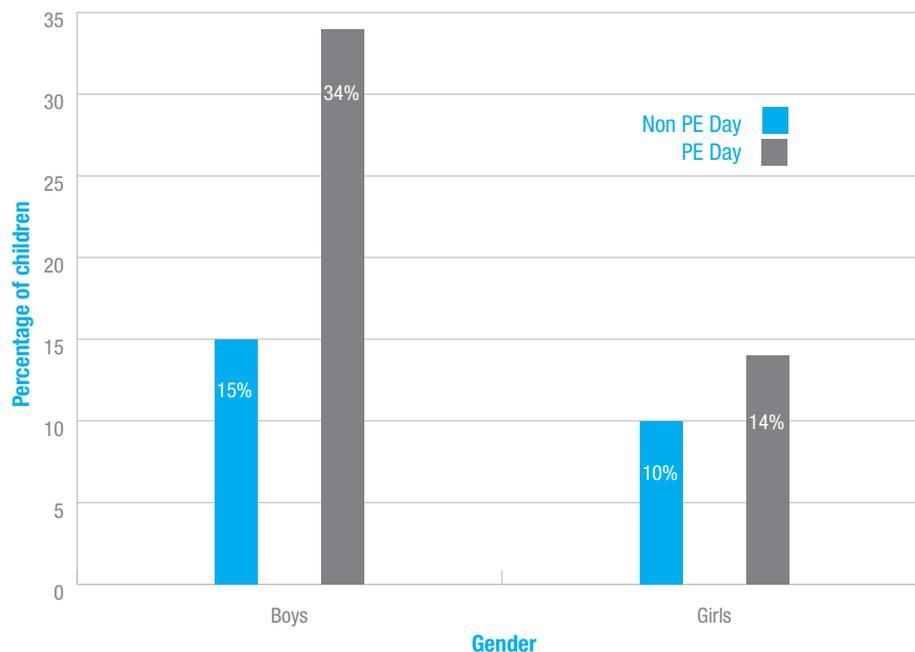


Fig 1.0. Percentages of all children (N=267, 115 males) accumulating 60 mins of MVPA per day



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Figure 1.1 (below) shows the percentage of Northern children achieving 60 minutes of MVPA on PE and non-PE days.

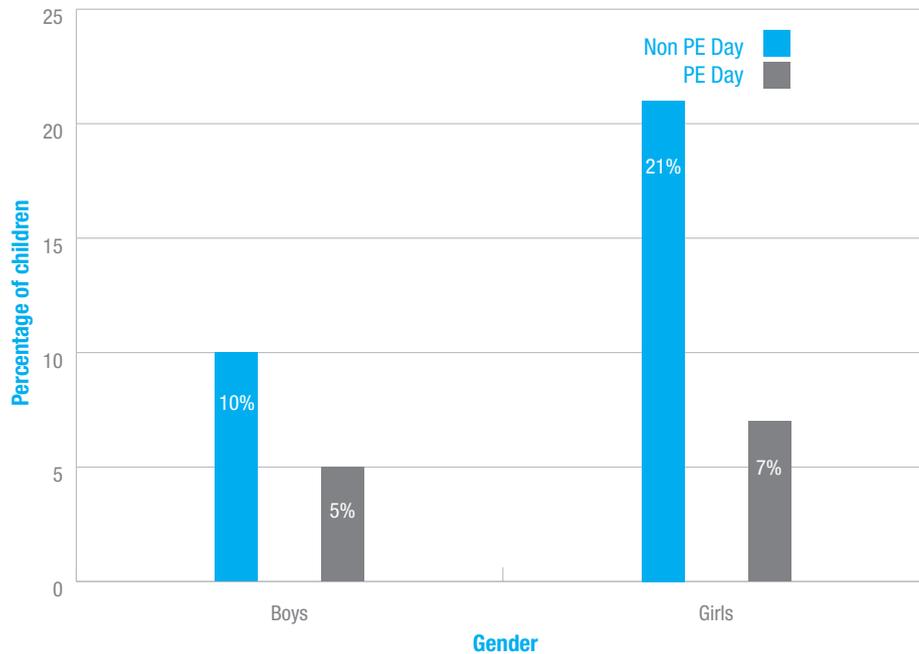


Fig 1.1. Percentages of Northern children ($N=155$, 74 male) accumulating 60 mins of MVPA per day

None of the Southern children accumulated 60 mins of PA on either a normal school day or on a school day with PE.

The proportion of Northern children fulfilling the current PA recommendation is considerably higher than the 2.5, 5.1 and 0.4 percent reported by Riddoch et al (2007) for all children, males and females, though lower than those reported by Stratton et al (2009). Riddoch's values for the number of children achieving current PA recommendations are broadly similar to the values reported here for Southern children.

There was a modest relationship between MVPA on PE days and the sum of skin-fold thicknesses ($r=0.196$, $p=0.004$). This is in keeping with the literature which shows a modest relationship between PA and indices of body fatness in children (Ekelund et al 2004, Riddoch et al 2009).

Influence of PE lesson context on MVPA

Initial analysis indicates no relationship between lesson context (teacher training, school facilities, activity taught, lesson duration) and observed MVPA.

Conclusion

Primary school PE contributed around 10 additional minutes to children's week-day MVPA or 17% of the current recommendations for health enhancing PA in this age group. This increased level of MVPA appeared to be independent of gender and geographical location. In terms of total volume of accumulated MVPA, boys were more active than girls and children from the North were more active than children from the South. The numbers of





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children fulfilling current recommendations for health enhancing PA showed a minority of the children studied (37% of males, 5 % females) accumulated 60 mins of MVPA on non-PE days, with 43% of males and 7% of females achieving the target on PE days. A greater proportion of Northern children achieved the 60 minute target (28% of children on non-PE days and 35% of children on PE days) compared to the Southern children (0% on either day).

Limitations

Children's PA was only assessed on two days and therefore may not be fully representative of children's normal activity patterns. Teachers and pupils were informed of the aims of the project and may therefore have amended their behaviour for the duration of the monitoring period. Accelerometers, whilst valid measures of PA, have limitations in that they are incapable of assessing non-ambulatory upper-body movement and the output has been shown to plateau at high ambulatory speeds in adults (Brage et al 2003). The children from the Limerick area were on average one year younger and had higher skin-fold thickness than their Northern counterparts. The influence of these factors on the observed MVPA levels is unknown.

Acknowledgements

The authors wish to express their sincere gratitude to the Standing Conference on Teacher Education North and South (SCoTENS) for the funding which made this project possible, and to acknowledge the patience and flexibility afforded to the project by SCoTENS. We are extremely grateful to all the families and teachers who took the time to participate in this stud, and to Ruth Hill and Deirdre Harrington who assisted in the data collection.

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DEVELOPING ALL-IRELAND RESEARCH CAPACITY IN ARTS BASED EDUCATIONAL RESEARCH (ABER)

Dr Ruth Leitch, Queen's University Belfast
Ms Shelley Tracey, Queen's University Belfast
Ms Caryl Sibbett, Queen's University Belfast
Dr Mary Shine Thompson, St Patrick's College, Drumcondra



Queen's University Belfast has been working in collaboration with colleagues from St Patrick's College, Drumcondra to develop all-Ireland research capacity in arts-based educational research, thanks to a SCoTENS award. Arts Based Education Research (ABER) aims to understand education through arts-based concepts, techniques and practices. Practitioners and researchers use a variety of arts-based methodologies to undertake their inquiries and / or to communicate their understanding through such diverse genres as autobiography, narrative, poetry, visual arts, drama, dance, music and performance.

There is a relatively new but rapidly growing body of literature and practitioner knowledge that directly addresses concepts of art as research; the nature of knowing aesthetically and learning aesthetically; the process of making, and the use of art as platform for recording and analysing data. Expertise, however, has tended to develop in pockets on the island of Ireland, and to date there has been little opportunity to share the rich array of experiences and outcomes associated with ABER. The SCoTENS project is helping to address this by building a sustainable community of practitioners and researchers in teacher education who have a common interest in developing, sharing and disseminating arts-based research.

A number of seminars and creative workshops have been held in Belfast and Dublin throughout the past year which have been well-attended by a range of educators. Speaking at a recent ABER meeting, Dr Ruth Leitch (PI) said: 'The ABER Ireland team has been delighted by the interest and it is clear that Ireland is a rich source of arts-based research activities. What we are trying to do is build a repository of these activities and ensure researchers are networked.'

Presently a website is being developed which will act as a web-based repository as well as a focus of communication and dissemination for ABER practitioners north and south. It is due to be launched at the end of June 2010 and will be located at www.aberireland.com



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THE DIGITISATION OF THREE VOLUMES OF IRISH EDUCATION DOCUMENTS: VOLUME 1, FROM EARLIEST TIMES TO 1921; VOLUME 2, THE IRISH FREE STATE AND THE REPUBLIC OF IRELAND 1922-1991; VOLUME 3, NORTHERN IRELAND 1922-1991

Professor Áine Hyland, Church of Ireland College of Education
Professor Tony Gallagher, Queen's University Belfast

Irish Educational Documents, Volumes 1, 2 and 3 are now available in digitised form. The three volumes (totalling over 1,600 pages), consisting of a selection of extracts from documents relating to the history of Irish education with commentary, were originally published in print form by the Church of Ireland College of Education, Rathmines, Dublin, in 1987, 1992 and 1995 respectively. Volume 1, which contains extracts from documents from earliest times to 1922, and Volume 2, which relates to the history of Irish education from 1922 to 1991 in the Irish Free State and the Republic of Ireland, were edited by Áine Hyland and Kenneth Milne. Volume 3, which relates to Northern Ireland from 1922 to 1992, was edited by Áine Hyland, Kenneth Milne, Gordon Byrne and John Dallat.

The digitised version of the three volumes of Irish Educational Documents was funded by a grant from SCoTENS (Standing Committee on Teacher Education North and South) as part of a joint initiative between the Church of Ireland College of Education, Rathmines, and the School of Education at Queen's University, Belfast. The editors are very grateful to SCoTENS for their financial support and help, and to Professor Tony Gallagher of Queen's University Belfast for his collaboration. The digitised publication is now available, free of charge, to all interested scholars and students on Google Books. It may also be obtained on CD from the National Academy for the Integration of Research and Teaching and Learning, Distillery House, North Mall, Cork. Tel. 021 4904690: <http://www.nairtl.ie>. A small charge to cover postage and packing will be made. (*Email: nairtl@ucc.ie*).

The digitisation has been authorised by the Church of Ireland College of Education, Rathmines, Dublin - the publishers of the print version of the Documents - with the agreement of the editors and authors.

Áine Hyland
Project Co-Ordinator





SIXTH FORM/SIXTH YEAR RELIGION IN NORTHERN IRELAND AND THE REPUBLIC OF IRELAND

Dr Andrew G McGrady, Mater Dei Institute of Education, Dublin
Dr Christopher A Lewis, University of Ulster, Magee

PROGRESS REPORT

The project involves the gathering of data from sixth form and sixth year final year pupils in both Northern Ireland and the Republic of Ireland relating to values and religion. The following work has been completed to date:

- The survey instrument was finalized and printed.
- Research ethics approval was obtained.
- A representative sample of Catholic and Protestant schools in both Northern Ireland and the Republic of Ireland were contacted and agreed to participate.
- The research instrument was administered in participating schools north and south. Slightly over 3,500 surveys were validly completed in the Republic of Ireland and 2,000 have so far been returned from Northern Ireland.
- Data entry for these 5,500 surveys is presently ongoing.

Due to a relocation of Dr. Chris Lewis from the University of Ulster to Glyndwr University (Wales) during the current academic year, the collection of data from Northern Ireland was slower than expected, but is still continuing. Accordingly the project will not be completed by June 2010 but will be completed during 2010.



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PEER MENTORING FOR POST COMPULSORY TEACHER EDUCATION

Mrs Celia O'Hagan, University of Ulster, Jordanstown

Ms Violet Toland, University of Ulster, Jordanstown

Professor Gerry McAleavy, University of Ulster, Jordanstown

Ms Jennifer Cornyn, University of Ulster, Jordansown

Dr Ted Fleming, NUI Maynooth

EXECUTIVE SUMMARY

Introduction

Teacher education for vocational tutors has traditionally presented dilemmas in relation to supporting teachers across a wide and constantly evolving range of vocational subject areas. The introduction of peer mentorship provides opportunities for early career and experienced educators to share knowledge and skills they have acquired in vocational teaching with colleagues. Experienced staff can share much valued experience with younger or new staff, who are given the opportunity to observe alternative and experienced teaching practices as a result of the mentoring experience. This has proved to increase staff confidence both socially and professionally. In addition, this project has found that peer mentoring can support senior teachers to continue their own professional development through the opportunities of observation with younger staff.

The nature of vocational education dictates that vocational teachers will usually have entered teaching from a business background from which they may have gained much of value in terms of vocational knowledge but may face significant challenges in adjusting to a new identity as an educator. This is especially the case as vocational teachers enter service prior to undertaking teacher education, as opposed to school teachers who are trained before they commence teaching.

For this reason colleges are often faced with challenges insofar as their student intake will consist of a range of students who have very diverse needs. Consequently, deficiencies in teaching will, inevitably, lead to poor retention and poor rates of achievement. The further outcomes will be that colleges will experience financial penalties and, more crucially, young persons who do not have the opportunity to develop their potential will be at risk of becoming marginalized within a society where accredited knowledge and skills are an essential requirement for employment and, ultimately, social inclusion (McAleavy et al, 2004, McAleavy et al 2005).

The peer mentorship approach introduced in this project addresses these issues through the establishment of a North/South partnership designed to enable two universities (Univ. of Ulster and NUI Maynooth) and two colleges (Cavan Institute and Belfast Metropolitan College) to identify the needs of vocational peer mentors, and to work together to share experiences and values with the aim of establishing a sustainable and permanent peer mentorship programme. Such a partnership study has proved essential for north-south cooperation.





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Much research (Lin, 2010, Mitchell, et al., 2009) points to the need for active and informed mentoring if performance is to be improved, with the direct implication that the recruitment and appropriateness of the mentoring arrangements themselves may impact on the success or otherwise of the outcomes. Equally the research serves as a caution against what might be perceived as a complacent view that the sharing of pedagogy and reflection will necessarily develop as a result of the new, existing or emerging professional relationships per se. The evidence is that structured support and scaffolding is required if vocational teachers are to successfully address the significant challenges posed by their broad range of students.

This project has, therefore, been concerned with the development of a structured and formal peer mentorship programme that will offer added value to colleges, enabling them to fulfil their increasingly complex missions and serve to enhance the levels of knowledge and skills of vocational teachers through the sharing of expertise in the analysis of practice and the encouragement of reflective approaches as an embedded aspect of the tutor role.

Methodology

A formal mentorship programme was implemented for peer mentors during their exchange experience. Mentors from two large colleges of FE took part in the project. A series of visits were organised, supported by participating HEIs North and South.

Mentorship skills development was supported through the project in line with HEI standards. Peer mentors took part in preparatory lectures, role plays, simulated activities and online discussions using technology supported learning. The following methods of research were employed:

1. Reflective Diaries
2. Focus Group Interviews
3. Student Digital Stories
4. Document Audits – each peer mentor was required to keep professional field and observation records.
5. Observations of Practice.

Findings

1. **The value of mentorship as a model of teacher education within the workplace:** mentorship increases teacher confidence and builds self esteem; encourages mentors/teachers to open classroom doors and share good practice; increases willingness to seek support; increases willingness to change and continue to reflect/self assess own practice and support others in doing same; offers opportunity for retention of knowledge beyond the tenure of teachers.
2. **The Skills of the Peer Mentor:** supports collaborative learning, offering opportunity for the establishment of Community of Practice; raises awareness of good practice and shared standards; supports staff in developing own scholarship as leaders of the future; increases awareness of team working skills, challenges and outlook with teaching and learning; assists colleges and individual teachers to continue professional development as a lifelong learning professional objective.
3. **Development of North South Forums for future peer exchange and cooperation:** leads to increased feeling of globalised education through networking and learning, encouraging participation in projects.



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4. **The Use of Technology for Mentoring:** Provides opportunities for the safe introduction of new technologies and strategies; offers opportunities for social networking and continued engagement with discussions about good practice in teaching and learning.
5. **Importance of Accredited and Structured Training for Mentors:** enhances and validates teaching values, challenges and strategies; provides knowledge capital for college managers (acting as peer mentors), informing them of staff attributes, skills and needs.

Conclusion and Recommendations

The project has found many important aspects of peer mentorship that add value to the experience of both the early career teacher and senior teacher in colleges of further education, north and south. The overall outcomes offer opportunities for the utilisation of social networking for the sharing of good practice. Several key additional research outcomes have been found, including the increased confidence of all participating staff, the additional benefits of north-south cooperation for the college managers and the impact of such initiatives on the individual, and the strategic vision of the colleges for the future.

In conclusion, the researchers suggest the following key recommendations:

1. The introduction of an accredited training scheme for peer mentors as part of teacher education programmes in the post compulsory sector, for early career development.
2. Experienced staff in colleges should have the opportunity to become peer mentors, thereby capturing the important knowledge capital of staff and making effective use of experiential teaching for the improvement of early career teachers. This will also offer continued professional development for experienced staff.
3. Peer mentoring schemes should be considered as part of quality enhancement strategies for all colleges in the North and South of Ireland.
4. When recruiting peer mentors, it is important to recognise their attributes and the college needs in order to promote creative and innovative strategies for teaching and learning.
5. Peer mentorship may add value to staff development and/or human resource policies, as part of a developmental support system within a college.
6. Exchange programmes that are funded as part of a mentoring scheme should be mapped to teacher research targets/projects and outcomes. This would offer opportunities for future scholarship and leadership across sectors and regions.

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GAEILGE LABHARTHA NA BPÁISTÍ I SCOILEANNA LÁN GHAELGE IN ÉIRINN (THE SPOKEN IRISH OF PUPILS IN IRISH MEDIUM SCHOOLS)

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Ms Jill Garland, St Mary's University College, Belfast

The overall aim of this study is to examine the proficiency in Irish of Primary 7 pupils in Irish-medium primary schools in Northern Ireland (NI) and to compare them to data already gathered in relation to 6th class pupils in Irish-medium primary schools in the Republic of Ireland (RoI). While international research confirms that pupils in immersion programmes attain fluency in the target language, they lack grammatical accuracy (Harley, Allen, Cummins, & Swain, 1990). The study in the Republic of Ireland identified weaknesses in the syntactic and lexical features of Irish-medium pupils' spoken Irish (Ó Duibhir, 2009) and the present study is seeking to ascertain if there are significant differences between the features of both populations.

The field work for the study was conducted in spring-summer 2009 in a sample of four Irish-medium schools in Northern Ireland. The pupils in Primary 7 ($n = 70$) were asked to participate in a collaborative task in groups of three. The pupils were video or audio-recorded while they engaged in the task. The first twenty minutes of each group's recording was transcribed for further analysis. This resulted in 2 hours and 40 minutes of pupils' speech which amounted to a corpus of 14,383 words. Analysis of this speech revealed that 31.3% of the pupils' utterances contain errors. This figure is very close to the 29.2% error rate of pupils in 6th class in Irish-medium schools in RoI. Further analysis of the NI corpus has examined the most common errors of the pupils and provided suggestions for changes in pedagogy.

The researchers returned to each school a week to ten days after the initial recording had been made. The pupils that had been video-recorded ($n = 24$) were shown extracts of the recording as a stimulated recall. The purpose of this exercise was to allow the pupils to discuss their perceptions of their proficiency in Irish and the reasons why they speak without grammatical accuracy. The analysis of this section of the study is ongoing.

On the second visit to each school the pupils were asked to complete an Attitude Motivation Test Battery (AMTB). The purpose of the AMTB is to measure pupils' attitude and motivation to Irish. It consists of a 57 item questionnaire across nine scales, using Likert-type responses adapted and modified from Harris and Murtagh (1999). The analysis showed that Irish-medium pupils in both RoI and NI have very positive attitudes and motivation to Irish. An independent-samples t-test revealed no significant differences between NI and RoI pupils, except for 'instrumental orientation to Irish'. Responses to a number of items revealed that pupils tend to be less concerned about oral language accuracy when conversing with peers than when conversing with teachers.

Other items confirmed that the pupils' use of Irish was mainly confined to the school and school activities. When the standard deviation (SD) was calculated for particular items, it was found that the responses of pupils in NI had a greater SD. When these items were



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examined in further detail it was discovered that the NI pupils were stronger in agreement/disagreement than pupils in RoI. This does not mean that the NI pupils had a stronger attitude or motivation to Irish, but that they were more definite in their opinions.

We will be commencing work shortly on the other data that has yet to be analysed. We hope to write the report in the autumn and be in a position to submit it to SCOTENS in late October or early November 2010.

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LIFT OFF LITERACY PROGRAMME FOR THE IRISH MEDIUM SCHOOL

Dr Gabrielle Nig Uidhir, St Mary's University College, Belfast
Sr Elizabeth Connolly, Monaghan Education Centre

The Lift-off literacy programme is an intensive literacy programme modelled on the Reading Recovery (RR) intervention programme for young children. It involves a structured, daily sequence of literacy activities where five teachers manage literacy stations and children rotate in groups around the stations. This programme was redeveloped in Irish and piloted in an Irish-medium primary school during the spring term 2009. Significant findings from the administration of the pilot programme in Irish will be discussed, including qualitative and quantitative data relating to pupils' literacy achievement, as well as the advantages and challenges associated with the implementation of the programme.

The aims of this project are aligned to the vision expressed by the Department of Education (NI): 'To ensure that every learner fulfils his or her full potential at each stage of their development'. The programme is designed to accelerate the literacy achievement of the whole class by focusing on the quality of the teachers' interactions with pupils within a structured and stimulating literacy programme.

Concerns about levels of literacy and numeracy attainment in schools, addressed in *Every School a Good School* (DE 2008), highlight many complexities associated with patterns of underachievement that have been identified. Within the Irish-medium sector, end of key stage results in English and maths compare favourably with English-medium schools. Nevertheless, Irish-medium schools face their own challenges, one of which is a severe shortage of resources. (DE 2008, 43) The range of resources available for Irish-medium teachers and other professionals to use to assess and support pupils experiencing learning difficulties has improved in recent years, but remains limited. It is hoped that work carried out on this project will further advance the effective use of resources relating to literacy development.

A diagnostic tool linked to the Reading Recovery programme was redeveloped into Irish at St. Mary's University College and piloted in schools throughout Ireland. (Clay and Nig Uidhir, 2006). This tool, *Áis Mheasúnaithe sa Luathlitharthacht (ÁML)*, was used to assess outcomes in the Preabhlár project.

Research questions aimed to:

- Explore the appropriateness of this programme for the Irish-medium context;
- Address the important issue of resources in the Irish-medium school;
- Examine the management challenges for implementing this programme;
- Consider the outcomes of the programme in comparison to a control group;
- Consider the potential for professional development for teachers and student teachers that this programme would require.

Research methods included:

- Consultation and planning (viewing the English-medium model in a school) with Reading Recovery tutors;



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- Programme design – redeveloping in Irish the structure and activities of the existing model;
- Collecting reading and levelling suitable texts in Irish in cooperation with teachers;
- Observation and recording (dvd) of teaching sessions;

Key findings included:

- Preabchlár pupils made significant progress across all six literacy tasks, and most significantly in writing competence. The control group also made progress, although to a lesser degree.
- Children who would benefit from one-to-one intervention (Reading Recovery) were identified during the programme.
- The programme was evaluated very positively by pupils and teachers.
- Some amendments to training provision were also highlighted during evaluations.
- Further areas for development included extending the programme throughout the school and also offering it bilingually.

This project was funded by SCoTENS. Participants in the project were Dr. Gabrielle Nig Uidhir, St. Mary's University College (researcher and contributor to teaching group); Sr. Elizabeth Connolly, Monaghan Teachers' Centre (advisor and consultant on programme); Aine Nic Giolla Cheara (School Principal and contributor to teaching group); class teachers, classroom assistants and pupils of Bunscoil Phobal Feirste.

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THE DEVELOPMENT OF NORTH/SOUTH CASE STUDIES IDENTIFYING KEY FEATURES OF GOOD PRACTICE IN THE TEACHING OF PUPILS FROM ETHNIC MINORITIES

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The main aim of this project is to develop case studies from the North and South of Ireland exemplifying good practice in the teaching of pupils from ethnic minorities. The focus will be mainly on identifying teaching/learning strategies which are successful in integrating ethnic minority children into the classroom and engaging them actively in their learning. Our concern will be the nature and quality of the interaction taking place in the classroom; communication including the involvement of 'newcomer' children in class discussions and questioning sessions; how learning is scaffolded and supported by teachers and peers, and how relationships between pupils are encouraged and supported. The case studies will make classroom strategies a central focus of the research. A range of qualitative research methods will be employed, including desktop study of relevant documents, semi-structured interviews with key personnel, classroom observation and small focus group discussions with pupils.

Thus far, the project has fallen slightly behind schedule. We have agreed the classroom observation schedule and the interview questions and have identified the schools we intend to use for the case studies. We have also piloted the observation schedule and interview questions with one school to ensure that they were fit for purpose. As yet the main observation and interviewing process has not been carried out. We intend to carry out at least some of these in June 2010. Despite falling behind schedule, we are still confident that we can complete our research and final report by January 2011.



Sectoral Conference Reports 2009-2010



Funded or Co-funded by SCoTENS

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DYSLEXIA, LITERACY AND INCLUSION CONFERENCE

Ms Louise Long (St. Mary's University College, Belfast)

Mr Damian Knipe (St. Mary's University College, Belfast)

Dr Michael Shevlin (Trinity College, Dublin)

Dr Therese McPhillips (St. Patrick's College, Drumcondra)

This research conference, which was generously funded by SCoTENS, aimed to provide a dynamic, multi-agency approach for policy-makers, practitioners, school leaders and researchers from across the island of Ireland to share their expertise, experiences and ideas on the provision of high quality, child-centred educational experiences to pupils who have dyslexia. It also facilitated networking opportunities that have the potential to lead to further partnerships, which should inform the inclusive education debates in Northern Ireland and the Republic of Ireland. The over-arching aim for the day complemented the 'Every Child Matters' agenda in terms of identifying best practice in safeguarding and promoting the well-being of young learners with dyslexia so that ultimately they fulfil their potential and embrace adulthood with high levels of academic, social and emotional self-efficacy.

The conference, which took place on 12 March 2010 at St Mary's University College, Belfast, was attended by 61 delegates from Northern Ireland, 21 delegates from the Republic of Ireland and 2 delegates from England. The participants included the following relevant stakeholders: school principals; educational psychologists; literacy support specialists and advisors; teachers; lecturers; and inspectors. The conference was opened by Professor Peter Finn, Principal of St. Mary's University College, who warmly and robustly welcomed everyone. Dr Sean MacBlain, Reader in Child Development and Disability Studies at University College Marjon, Plymouth went on to deliver a sensitive and challenging keynote speech on the ethical issues that arise when assessing learners for dyslexia. Dr MacBlain drew on his own research and broad range of experiences in the field of special educational needs to examine some contemporary issues, including the emotional world of pupils with dyslexia, the need for a sharper focus on personalised learning pathways and the dynamic of power in parent-professional partnerships. He concluded with a colourful challenge to the status quo in current assessment practices, which set a critically reflective and concurrently relaxed tenor for the remainder of the day.

It has been almost ten years since the then NI Minister for Education, Martin McGuinness, raised the focus for policy development and public interest in dyslexia when he commissioned a regional task group that mirrored an existing model in the Republic of Ireland. The papers that followed Dr MacBlain's address related to the development of this early pioneering work by building capacity to remove barriers to learning so that pupils with dyslexia are provided with well-targeted child-centered support. There was one morning and one afternoon session each containing three parallel presentations, allowing delegates to attend two presentations.

Full report on : <http://scotens.org/?tag=dyslexia>





DOCTORAL RESEARCH IN EDUCATION NORTH AND SOUTH – LINKS, CHALLENGES AND OPPORTUNITIES

Dr Caitlin Donnelly, Queen's University Belfast
Dr Dympna Devine, University College Dublin

The second cross border, conference for doctoral researchers in education took place on Friday 21st and Saturday 22nd May 2010, at Queen's University Belfast. The conference, entitled 'Doing Your Doctoral Research: Forging Links in Education', attracted research students from across the island of Ireland and was jointly organised by research students in Queen's School of Education and the School of Education, University College Dublin. Generously supported by SCOTENS, the Educational Studies Association of Ireland, UCD and QUB, the conference attracted over 60 delegates from a total of eight academic institutions on the island of Ireland. Papers and posters ranged across a series of key themes including 'Multiculturalism', 'Inclusive Education', 'Technology in Teaching and Learning', 'Emotions in Education' and 'Family and Education'.

Professor Gill Crozier from the University of Roehampton addressed the delegates with a keynote speech entitled: 'Is qualitative research just another form of surveillance?' Drawing on her extensive research on ethnicity, social class and parental participation in education, Professor Crozier provided a fascinating and informative account of the dilemmas of undertaking qualitative research.

In contrast to previous years, and reflecting feedback from the 2009 event, the conference organizers arranged a roundtable session at which delegates were invited to discuss their experiences of 'Doing a PhD'. All roundtable sessions were facilitated by two members of academic staff and the lively debates that ensued made this a particularly valuable component of the conference programme.

The response of delegates was extremely positive and it is clear that the networking opportunities provided by the conference continue to be much appreciated by doctoral researchers throughout the island.



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FACING AUTISM IRELAND 2009

Dr Karola Dillenburger, Queen's University Belfast
Dr Geraldine Leader, School of Psychology, NUI Galway

The fourth International Facing Autism Ireland conference took place on 26-27 June 2009 in Belfast (Europa Hotel). This year's conference was co-funded by a grant from SCoTENS.

Dr Karola Dillenburger from the School of Education (QUB), who chaired the organising committee for the conference, welcomed the delegates and introduced the speakers. Dr Ken Brown, Pro Vice Chancellor for Students and Education, opened the conference by welcoming five international keynote speakers including Dr Gina Green (Hon Doctorate from QUB, 2005) and pointing out the importance of science-based treatment of autism spectrum disorders.

Autism Spectrum Disorder (ASD) affects an estimated 15,000 people in Northern Ireland, including 3,000 school-age children. More than 300 children born every year will later be diagnosed with the condition. Autism Spectrum Disorder is diagnosed when a triad of impairments, including impairment of social relationships, impairment of social communication and impairment of imagination, has been present for a prolonged time period. In most cases ASD is diagnosed in children aged between 2-4 years old, but it can be diagnosed earlier or later, and international figures estimate that nearly 1 per 100 children are affected.

For the past four decades, Applied Behaviour Analysis (ABA) has provided a framework for effective treatment across the world, yet it is not routinely available in Northern Ireland. In many states in the US and Canada, autism treatment based on the science of Applied Behaviour Analysis is now routinely provided for individuals and their families. In Northern Ireland the charity Parents Education as Autism Therapists (PEAT) has fought for the last 12 years for the provision of ABA based services, but is repeatedly told that science based treatment is not being provided by statutory bodies.

In her keynote address, Dr Green pointed out the necessity of policy changes to achieve effective and evidence based intervention of individuals diagnosed with ASD. Her call for policy changes was underpinned by Dr Bobby Newman (New York), who outlined the importance of data based decision making in autism treatment. Dr Newman is known to many parents in Northern Ireland, since the times when he first came over to support them in their struggle to make ABA-based treatment available to their children and help to set up PEAT in 1997. He has returned to Northern Ireland repeatedly to support parent and professionals.

Dr Bill Ahearn, Director of Research at the New England Centre for Children (NECC), then spoke about the detailed research programme conducted at the NECC and impressed the need for a clear theoretical knowledge base for treatment. Dr Karen Wagner (Florida) showed how adults can also benefit from ABA-based treatment, even if they did not received intensive early behavioural interventions when they were younger. Her clear message was: 'Its never too late to start science based treatment'. Dr Neil Martin, from the European Association for Behaviour Analysis, then showed how ABA-based services have grown across Europe and the UK, and how the Behavior Board Certification Board is now recognised as





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providing minimal training standards for ABA professionals across Europe (cf. www.bacb.com). On the conference's second day, eight parallel workshops were held addressing issues of ABA and autism.

Delegates included parents and families of those diagnosed with Autism, teachers, health professionals, social workers, speech and language therapists, and others who worked with children or adults diagnosed with Autism Spectrum Disorder.

During the conference the international speakers and local parents also met with John McCallister MLA from the Northern Ireland Assembly's Education Committee, and Dominic Bradley MLA, Chair of its All Party Group on Autism, to discuss the need for professionally certified, ABA-based services in Northern Ireland.



Current Conference, Research and Exchange Projects



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CROSS-BORDER CONFERENCE ON INTEGRATION OF ACADEMIC AND PERSONAL LEARNING IN POST-PRIMARY RELIGIOUS EDUCATION

Mr Vincent Murray, St Angela's College, Sligo
Mr Norman Richardson, Stranmillis University College, Belfast

This project will focus on:

- Bringing together teacher educators and post-primary teachers, school principals and other interested stakeholders from Northern Ireland and the Republic of Ireland to explore together the integration of academic and personal development within Post-Primary Religious Education;
- Exploring, both theoretically and practically, the thesis that academic scholarship supported by public examination certification, as well as faith development, which engages with faith traditions and social action in the public sphere, are best achieved together because each needs the other to flourish;
- Enabling teacher educators and teachers of Religious Education in both jurisdictions to arrive at an informed professional understanding of the relationship between academic and personal learning in their teaching of Religious Education.

SCoTENS grant awarded £4,000

DISABLIST BULLYING: AN INVESTIGATION OF STUDENT TEACHERS' KNOWLEDGE AND CONFIDENCE

Dr Noel Purdy, Stranmillis University College, Belfast
Dr Conor McGuckin, Trinity College Dublin

The aim of this research project is to investigate:

- The knowledge of disablist bullying by student teachers in both jurisdictions;
- The confidence of student teachers' in both jurisdictions in dealing with disablist bullying;
- Looking at priorities for north-south Initial Teacher Education in moving towards improving the preparation of teachers to address effectively the issue of disablist bullying in schools.

SCoTENS grant awarded £4,500

EFFECTIVE MENTORING WITHIN PHYSICAL EDUCATION TEACHER EDUCATION

Dr Fiona C Chambers, University College Cork
Mr Walter Bleakley, University of Ulster at Jordanstown
Dr Deirdre Brennan, University of Ulster at Jordanstown

The aim of this research project is to:

- Prepare a summary of existing research on best practice in effective mentoring in the work place, within and beyond education;





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- Analyse three different models of mentoring in PETE (physical education teacher education) in three research sites, and to compare them with each other and the existing literature on effective mentoring;
- Provide an opportunity for mentors in the three research sites to comment on current practice and identify gaps in their training and preparation for becoming an effective mentor;
- Prepare a position statement on effective mentoring in PETE, using the format of a collaborative seminar that can inform practice in the three research sites, underpin joint research publications and provide a rationale for further collaborative research.

SCoTENS grant awarded £5,000

AN EVALUATION OF THE IMPLEMENTATION OF REALISTIC MATHEMATICS EDUCATION (RME) WITHIN PRIMARY SCHOOLS IN THE NORTH AND SOUTH OF IRELAND

Dr Pamela Moffett, Stranmillis University College
Dr Dolores Corcoran, St Patrick's College, Drumcondra

Since 1971 the Freudenthal Institute (FI) in the Netherlands has developed a theoretical approach towards the teaching and learning of mathematics known as Realistic Mathematics Education (RME). In practice, the Dutch reform of mathematics education depended largely on the introduction of textbooks which reflect the principles of RME. Now, more than three-quarters of primary schools in the Netherlands use a mathematics textbook that was inspired to some degree by this reform movement. The Institute has also been involved in a number of cross-national collaborations, designing mathematics curriculum materials for use within schools in various cultural settings.

This research project aims to:

Compare and evaluate the impact of implementing Realistic Mathematics Education (RME) textbooks in primary schools in the North and South of Ireland.

SCoTENS grant awarded £4,500

DOCTORAL RESEARCH IN EDUCATION – LINKS, CHALLENGES AND OPPORTUNITIES

Dr Dympna Devine, University College Dublin
Dr Caitlin Donnelly, Queen's University Belfast

The purpose of this application is to seek funding which will allow University College Dublin and Queen's University Belfast to organise a third all-Ireland research conference for doctoral students pursuing their studies in education in any of the Higher Education Institutions in Ireland. It is expected that the conference will take place in spring 2011 at the School of Education, University College Dublin.

SCoTENS grant awarded £4,700



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IMAGES AND IDENTITY: A COLLABORATIVE ART AND DESIGN CITIZENSHIP EDUCATION PROJECT

Ms Dervil Jordan, National College of Art and Design
Dr Jackie Lambe, University of Ulster

The aim of this research work is to pilot and develop a collaborative art and design education project within Initial Teacher Education, north and south, which will support the teaching of citizenship education across the whole island.

- By examining how exploring personal and national identities through Art and Design can change student teachers and learners perceptions' of themselves and others;
- By promoting cooperation in (curriculum development) across institutions responsible for Initial Teacher Education in the Visual Arts in Ireland with a specific north-south dimension;
- By focusing on the development, testing and implementation of innovative pedagogical materials in Art and Design, curriculum content and methods relating to the development of citizenship education;
- By supporting the development of innovative ICT based content services, pedagogies and practice for lifelong learning.
- By improving motivation for learning, and teaching and learning through the development of a range of approaches to teaching the visual arts to support transversal key competencies.

SCoTENS grant awarded £4,800

DIRECTORS OF TEACHING PRACTICE RESEARCH GROUP: CONTINUING PROFESSIONAL DEVELOPMENT FOR TEACHING PRACTICE SUPERVISORS

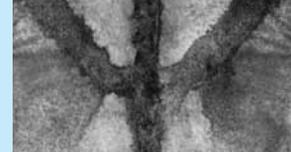
Ms Claire Connolly, St Mary's University College, Belfast
Mr Séamie Ó Néill, Froebel College, Dublin
Ms Gail Eason, Stranmillis University College, Belfast
Ms Bernadette Ni Áingléis, St Patrick's College, Drumcondra
Ms Patricia Slevin, Marino College of Education, Dublin
Ms Margaret Farrar, Church of Ireland College of Education
Mr Néil Ó Conaill, Mary Immaculate College, Limerick

Achieving consistency in the supervision of student teachers by a range of tutors who come to teaching practice with a variety of backgrounds and agendas is a challenging issue for those of us who organise and co-ordinate this essential aspect of the B.Ed. degree. This project aims to consider a number of important aspects of supervision and to develop an outline programme of Continuing Professional Development (CPD) for any party involved in the supervision of student teachers in schools.

These series of cross border exchanges will seek to explore the following:

- What expectations are supervisors bringing to the supervision of students?
- How do we set standard expectations?





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- What means have we for developing a more coherent, consistent approach?
- Can we develop a programme of CPD in this area?

SCoTENS grant awarded £4,500

EXPLORING JAPANESE RESEARCH LESSON STUDY AS A MODEL OF PEER TO PEER PROFESSIONAL LEARNING

Professor John Gardner, Queen's University Belfast
Mr Gerard Devlin, Queen's University Belfast
Dr Debie Galanouli, Queen's University Belfast
Dr Mary Magee, St Angela's College, Sligo
Ms Kathryn McSweeney, St Angela's College, Sligo

This study seeks to explore the use of Research Lesson Study (RLS), a long-established professional development strategy in Japan, as a model of school-based and peer-to-peer professional development for teachers which is new to Northern Ireland and the Republic. Broadly stated, RLS involves between 3-5 teachers forming a group that plans lessons, observes them being taught by each other and analyses them with a view to improving practice. There are various approaches to RLS, but this proposal seeks to adapt the successful work of Dudley (2005), which was arguably the first formal application of RLS techniques for professional development anywhere in Ireland or the UK.

The focus of this small-scale study is to examine this relatively new professional learning tool in two second level schools in Sligo and Belfast. The key research questions are:

1. Can RLS offer an effective school-based and peer-to-peer approach to staff development in schools?
2. What factors facilitate or hinder the improvement of pedagogy and ultimately learning through RLS?

SCoTENS grant awarded £5,700

A COMPARATIVE STUDY INTO FURTHER EDUCATION TEACHER EDUCATION IN THE NORTH AND SOUTH OF IRELAND: TOWARDS A FRAMEWORK FOR FURTHER EDUCATION TEACHING QUALIFICATIONS

Mrs Celia O'Hagan, University of Ulster
Professor Gerry McAleavy, University of Ulster
Ms Violet Toland, University of Ulster
Dr Jennifer Cornyn, University of Ulster
Dr Ted Fleming, NUI Maynooth

The purpose of this research project is to:

1. Establish an expert consultative forum of key stakeholders to advise on teacher education in North and South of Ireland in the further education sector;



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2. Investigate models of teacher education for FE that currently exist in the North and South of Ireland;
3. Devise a joint framework for teacher education for the FE sector in North and South of Ireland focusing on the need to enhance employability and enterprise;
4. Consult the managers and relevant staff of FE colleges, north and south, to ensure that the needs of providers are built into the plans for teacher education for FE;
5. Consult with staff in the Teaching Council (Ireland) and the General Teaching Council for Northern Ireland;
6. Design a framework and present findings to the key stakeholders (the Teaching Councils and associated working groups, North Eastern Further and Higher Education Alliance, college managers through the consultative forum, and teacher education providers, north and south).
7. Dissemination of project findings at a conference upon completion of project.

SCoTENS grant awarded £5,000

UNDERSTANDING THE POTENTIAL FOR RESEARCH CAPACITY BUILDING IN INITIAL TEACHER EDUCATION PROGRAMMES NORTH/SOUTH. A BASELINE COMPARATIVE STUDY: PHASE 1

Dr Jim Gleeson, University of Limerick
Dr Ruth Leitch, Queen's University Belfast
Dr Ciaran Sugrue, University of Cambridge

This project aims to:

1. To create a comprehensive baseline understanding of how research awareness, understanding and skills are incorporated and developed during the initial stages of teacher education.
2. To provide a 'force-field analysis' of the views, perspectives and resources of key actors/ stakeholders in teacher education with regard to the factors that support and/or inhibit research capacity-building in the initial phase of teacher education programmes.

SCoTENS grant awarded £5,200

CHILDREN EXPOSED TO DOMESTIC ABUSE: HELPING STUDENT TEACHERS UNDERSTAND THEIR ROLE IN THE PRIMARY SCHOOL SETTING

Dr Bronagh McKee, Stranmillis University College
Ms Stephanie Holt, Trinity College Dublin

This research project will undertake an audit in the participating institutions to identify the extent to which the topic of domestic abuse is included in the undergraduate education curriculum. Results from the audit will be used to inform the development and evaluation of a tailored education programme with student teachers. The aim of the education programme is to increase student teachers' knowledge and understanding of domestic abuse and the





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impact it has on primary school aged children's learning, development, behaviour and relationships within an educational context. The use of actors in the education programme provides an opportunity to address real life situations in a safe environment.

SCoTENS grant awarded £5,000



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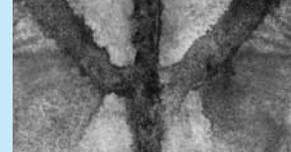
Challenges for Teacher Education

SUMMARY OF SCoTENS RESEARCH PROJECTS, CONFERENCES AND PUBLICATIONS 2003-2010

RESEARCH AND CONFERENCE PROJECTS FUNDED IN THE AREAS OF SPECIAL EDUCATION AND INCLUSION

No	Title	Date	Project leaders	Institutions
1	Special Education Needs and Initial Teacher Education in Ireland	2003-2004	Mr Hugh Kearns Dr Michael Shevlin	Stranmillis University College Trinity College Dublin
2	Preliminary evaluation of a teaching package for children with Profound and Multiple Learning Difficulties	2003-2004	Dr Jean Ware Dr Colette Gray	St Patrick's College Drumcondra Stranmillis University College
3	Together Towards Inclusion: a toolkit for trainers (1)	2004-2005	Ms Mary Yarr Ms Barbara Simpson Prof. David Little	Southern Education & Library Board Trinity College Dublin Trinity College Dublin
4	Teacher education for Special Educational Needs in the North and South of Ireland	2005-2006	Mr Hugh Kearns Dr Michael Shevlin	Stranmillis University College Trinity College Dublin
5	Together Towards Inclusion: a toolkit for trainers (2)	2005-2006	Ms Mary Yarr Ms Barbara Simpson Prof. David Little	Southern Education & Library Board Trinity College Dublin Trinity College Dublin
6	The Professional Development Needs of teachers working in Special Educational Needs	2007-2008	Ms Elizabeth O'Gorman Ms Mairin Barry Professor Sheelagh Drudy Ms Eileen Winter Dr Ron Smith	University College Dublin University College Dublin University College Dublin Queen's University Belfast Queen's University Belfast
7	Consulting pupils on the assessment and remediation of their Specific Literacy Difficulties	2008-2009	Ms Louise Long Dr Michael Shevlin	St Mary's University College Trinity College Dublin





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No	Title	Date	Project leaders	Institutions
8	Student Teachers perceptions of their competence to meet the needs of pupils with Autistic Spectrum Disorder in mainstream primary schools	2008-2009	Ms Mary Greenwood Dr Patricia Daly Ms Anne O'Byrne	St Mary's University College Mary Immaculate College Mary Immaculate College
9	Facing Autism Ireland Conference	2009-2010	Dr Karola Dillenburger Dr Geraldine Leader	Queen's University Belfast NUI Galway
10	Conference: Dyslexia, Literacy and Inclusion	2009-2010	Ms Louise Long Dr Therese McPhillips	St Mary's University College St Patrick's College Drumcondra
11	Development of North/South case studies identifying key features of good practice in the teaching of pupils from ethnic minorities	2009-2010	Mr Ken Wylie Dr Mark Morgan	Stranmillis University College St Patrick's College of Education

RESEARCH AND CONFERENCE PROJECTS FUNDED IN THE AREA OF CITIZENSHIP AND DIVERSITY

12	North/South Conference on Education for Diversity and Citizenship	2003-2004	Ms Una O'Connor Mr Gerry Jeffers	University of Ulster NUI Maynooth
13	North/South Conference on Education for Diversity and Citizenship (2)	2005-2006	Ms Una O'Connor Mr Gerry Jeffers	University of Ulster NUI Maynooth
14	Bringing School Communities together to promote education for diversity	2007-2008	Dr Ron Smith Prof. Keith Sullivan	Queen's University Belfast NUI Galway
15	Inclusion and Diversity Service post primary initiative	2008-2009	Ms Mary Yarr Ms Barbara Simpson	NEELB Trinity College Dublin



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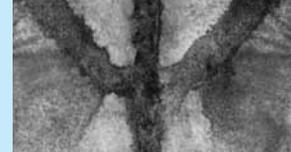
RESEARCH AND CONFERENCE PROJECTS FUNDED IN THE AREA OF TECHNOLOGY AND MATHS

No	Title	Date	Project leaders	Institutions
16	Current Practice in ICT within teacher education	2005-2006	Dr Roger S P Austin Ms Deirdre Graffin Dr Paul Conway Dr Joe O'Hara	University of Ulster University of Ulster University College Cork Dublin City University
17	Digital Video as a tool for changing ICT learning in schools and teacher education	2006-2007	Dr Roger S P Austin Ms Deirdre Graffin Dr Paul Conway Dr Joe O'Hara Dr Linda Clarke	University of Ulster University of Ulster University College Cork Dublin City University University of Ulster
18	Measuring the value of Education Technologies in Ireland North and South (MVET – Ireland)	2008-2009	Mr John Anderson Dr Conor Galvin Prof John Gardner	Department of Education, NI University College Dublin Queen's University Belfast
19	A cross-border comparison of student teachers' identities relating to Mathematics	2008-2009	Dr Patricia T Eaton Dr Maurice O'Reilly	Stranmillis University College St Patrick's College Drumcondra
20	Evaluation of the implementation of Realistic Mathematics Education (RME) within primary schools in the North and South of Ireland	2010-2011	Dr Pamela Moffett Dr Dolores Corcoran	Stranmillis University College St Patrick's College, Drumcondra

RESEARCH AND CONFERENCE PROJECTS FUNDED IN THE PEDAGOGY OF SCIENCE, HISTORY AND GEOGRAPHY

21	All-Ireland survey of student perceptions of History, Geography and Science	2004-2005	Dr Colette Murphy Ms Fionnuala Waldron	Queen's University Belfast St Patrick's College, Drumcondra
22	All-Ireland survey of student perceptions of History, Geography and Science	2005-2006	Dr Colette Murphy Ms Fionnuala Waldron Dr Janet Varley	Queen's University Belfast St Patrick's College, Drumcondra St Patrick's College, Drumcondra





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No	Title	Date	Project leaders	Institutions
23	All-Ireland survey of student perceptions of History, Geography and Science	2006-2007	Ms Susan Pike Mr Richard Greenwood	St Patrick's College, Drumcondra Stranmillis University College
24	Conference on findings of all-Ireland survey of student perceptions of History, Geography and Science	2008-2009	Ms Colette Murphy Mr Neil O'Conaill Ms Susan Pike	Queen's University Belfast Mary Immaculate College St Patrick's College, Drumcondra

RESEARCH AND CONFERENCE PROJECTS FUNDED IN THE AREA OF TEACHER EDUCATION

25	North/South Directors of Teaching Practice Study Group	2004-2005	Mr Paraig Cannon Ms Sandra McWilliams Ms Margaret Farrar	Coláiste Mhuire, Marino Stranmillis University College Church of Ireland College of Education
26	Diversity in Early Years Education North and South: Implications for Teacher Education	2005-2006	Dr Barbara McConnell Dr Philomena Donnelly Ms Louise Quinn	Stranmillis University College St Patrick's College, Drumcondra Stranmillis University College
27	North –South Conference on initial teacher education: The Competences Approach to Teacher Professional Development	2005-2006	Mr Barry Burgess Dr Andy Burke Ms Claire Connolly Ms Rose Dolan	University of Ulster St Patrick's College Drumcondra St Mary's University College NUI Maynooth
28	Developing Reflective Skills in Student Teachers	2006-2007	Dr Gerry MacRuaric Dr Judith Harford Mr Dermot MacCartan	University College Dublin University College Dublin St Mary's University College
29	Cross Border exploration of CPD needs of heads of year in a sample of comprehensive and integrated schools	2006-2007	Patrick McNamara Tom Geary Caryl Sibbett	University of Limerick University of Limerick Queen's University Belfast
30	School based work in the North and South of Ireland: a review of policy and practice	2006-2007	Dr Brian Cummins Ms Bernadette Ni Aingleis	Stranmillis University College St Patrick's College Drumcondra



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No	Title	Date	Project leaders	Institutions
31	A study of work based learning models and partnerships in support of post-compulsory programmes of teacher education	2008-2009	Prof. Gerry McAleavey Mrs Celia O'Hagan Mr Walter Bleakley Ms Sylvia Alexander Mr Harry McCarry Dr Ted Fleming Dr Robbie Burns	University of Ulster University of Ulster University of Ulster University of Ulster Belfast Metropolitan College NUI Maynooth Dublin Institute of Technology
32	Peer Mentoring in post-compulsory teacher education	2009-2010	Ms Celia O'Hagan Dr Ted Fleming	University of Ulster NUI Maynooth
33	Directors of Teaching Practice research group for CPD for teacher practice supervisors	2010-2011	Ms Claire Connolly Mr Séamie Ó Néill	St Mary's University College Froebel College of Education
34	Comparative study into further education North and South: towards a framework for FE teaching qualifications	2010-2011	Mrs Celia O'Hagan Prof. Gerry McAleavey Ms Violet Toland Dr Jennifer Cornyn Dr Ted Fleming	University of Ulster University of Ulster University of Ulster University of Ulster NUI Maynooth
35	Understanding the potential for capacity-building in Initial Teacher Education programmes. North and South: a baseline comparative study, Phase 1	2010-2011	Dr Jim Gleeson Dr Ruth Leitch Dr Ciaran Sugrue	University of Limerick Queen's University Belfast Cambridge University

RESEARCH AND CONFERENCE PROJECTS FUNDED IN THE AREA OF LANGUAGE LEARNING

36	English as an Additional Language in undergraduate teacher education programmes in Ireland	2008-2009	Mr Frank Quinn Mr Martin Hagan Dr Anne Ryan	St Mary's University College St Mary's University College Coláiste Mhuire
37	North-South Language Educators Conference	2008-2009	Dr Eugene McKendry Mr Patrick Farren	Queen's University Belfast NUI Galway





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No	Title	Date	Project leaders	Institutions
38	The spoken Irish of pupils in Irish-Medium Schools	2009-2010	Mr Pádraig Ó Duibhir Ms Jill Garland	St Patrick's College, Drumcondra St Mary's University College
39	Lift off Literacy programme for the Irish-Medium School	2009-2010	Dr Gabrielle Nig Uidhir Sr Elizabeth Connolly	St Mary's University College Monaghan Education Centre

RESEARCH AND CONFERENCE PROJECTS FUNDED IN OTHER AREAS

40	Art and Science in Education: Moving towards Creativity	2006-2007	Mr Ivor Hickey Ms Deirdre Robson Mr Donal O'Donaghue	St Mary's University College St Mary's University College Mary Immaculate College
41	Building Effective Science Outreach Strategies North and South	2006-2007	Dr V McCauley Dr C Domegan Dr Kevin Davison Dr Sally Montgomery Ms Eileen Martin Ms Emma McKenna Dr Billy McClure Dr Ruth Jarman	NUI Galway NUI Galway NUI Galway W5 Interactive Discovery Queen's University Belfast Queen's University Belfast Queen's University Belfast Queen's University Belfast
42	Social Justice Education in Initial Teacher Education: a cross border perspective	2006-2007	Dr Marie Clarke Dr Audrey Bryan Prof Tony Gallagher Dr Margaret Reynolds Dr Ken Wylie	University College Dublin University College Dublin Queen's University Belfast St Mary's University College Stranmillis University College
43	Investigation into the experiences of primary school teachers with regard to their teaching of healthy eating guidelines within the curriculum	2008-2009	Ms Elaine Mooney Ms Eileen Kelly-Blakeney Ms Amanda McCloat Ms Dorothy Black	St Angelas College of Ed St Angelas College of Ed St Angelas College of Ed University of Ulster
44	Building North-South links in whole college initiatives in global justice education	2008-2009	Mr Brian Ruane Dr Gerard McCann	St Patrick's College Drumcondra St Mary's University College



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No	Title	Date	Project leaders	Institutions
45	Contribution of Primary School Physical Education to health enhancing physical activity	2009-2010	Dr David McKee Dr Elaine Murtagh	Stranmillis University College Mary Immaculate College
46	Developing all-Ireland research capacity in Arts-based Educational Research	2009-2010	Dr Ruth Leitch Ms Shelley Tracey Ms Caryl Sibbett Dr Mary Shine Thompson	Queen's University Belfast Queen's University Belfast Queen's University Belfast St Patrick's College Drumcondra
47	Digitisation of three volumes of Irish Education Documents	2009-2010	Prof Áine Hyland Prof Tony Gallagher	Church of Ireland College of Education Queen's University Belfast
48	Sixth form/sixth year religion in Northern Ireland and Republic of Ireland	2009-2010	Dr Andrew McGrady Dr Christopher Lewis	Mater Dei Institute of Education University of Ulster
49	Disablist Bullying: an investigation into teachers' knowledge and confidence	2010-2011	Dr Noel Purdy Dr Conor McGuckin	Stranmillis University College Trinity College Dublin
50	Images and Identity (collaborative art and design education project within teacher education)	2010-2011	Ms Dervil Jordan Dr Jackie Lambe	National College of Art and Design University of Ulster
51	Effective Mentoring within Physical Education Teacher Education	2010-2011	Dr Fiona Chambers Mr Walter Bleakley	University College Cork University of Ulster
52	Exploring Japanese Research Lessons Study as a model of Peer to Peer Professional Learning	2010-2011	Prof John Gardner Mr Gerard Devlin Dr Debie Galanouli Dr Mary Magee Ms Kathryn McSweeney	Queen's University Belfast Queen's University Belfast Queen's University Belfast St Angela's College, Sligo St Angela's College, Sligo
53	Children exposed to domestic abuse: helping student teachers understand their role in a primary school setting	2010-2011	Dr Bronagh McKee Dr Stephanie Hold	Stranmillis University College Trinity College Dublin





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No	Title	Date	Project leaders	Institutions
PROMOTION AND DISSEMINATION OF RESEARCH				
54	Irish Association of Social Scientific and Environmental Education (IASSEE) Conference (1)	2003-2004	Dr Janet Varley Dr Colette Murphy	St Patrick's College Drumcondra Queen's University Belfast
55	Educational Studies of Ireland(ESAI)/British Education Research Association (BERA) joint conference (1)	2004-2005	Mr Denis Bates Prof John Gardner	University of Limerick Queen's University Belfast
56	IASSEE Conference (2)	2004-2005	Dr Janet Varley Dr Colette Murphy	St Patrick's College Drumcondra Queen's University Belfast
57	ESAI and BERA joint conference (2)	2005-2006	Dr Anne Lodge Prof John Gardner	NUI Maynooth Queen's University Belfast
58	Doctoral Research in Education North and South conference – links, challenges and opportunities (1)	2008-2009	Dr Dympna Devine Prof Jeanette Ellwood	University College Dublin Queen's University Belfast
59	Doctoral Research in Education North and South conference – links, challenges and opportunities (2)	2009-2010	Dr Caitlin Donnelly Dr Dympna Devine	Queen's University Belfast University College Dublin
60	Cross-border conference on Integration of Academic and Personal Learning in Post-Primary Religious Education	2010-2011	Mr Vincent Murray Mr Norman Richardson	St Angela's College, Sligo Stranmillis University College
61	Doctoral Research in Education North and South conference – links, challenges and opportunities (3)	2010-2011	Dr Caitlin Donnelly Dr Dympna Devine	Queen's University Belfast University College Dublin



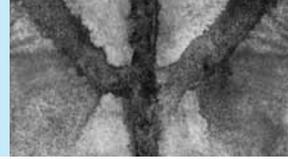
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PUBLISHED REPORTS

No	Title	Date	Authors/Editors
1	SCoTENS Annual Report	2003	Andy Pollak and Patricia McAllister
2	SCoTENS Annual Report	2004	Andy Pollak and Patricia McAllister
3	Teacher Education for Citizenship in Diverse Societies: Conference and annual reports	2005	Andy Pollak and Patricia McAllister
4	Teacher Education and Schools: Together towards improvement: Conference and annual reports	2006	Andy Pollak and Patricia McAllister
5	Together Towards Inclusion: Toolkit for Diversity in the Primary School (published out of SCoTENS project by Southern Education and Library Board and Integrate Ireland Language and Training	2007	Mary Yarr, Barbara Simpson and David Little
6	The Competences Approach to Teacher Professional Development: Current Practice and Future Prospects	2007	Rose Dolan and Jim Gleeson
7	Teaching in the Knowledge Society: Conference and annual reports	2007	Andy Pollak and Patricia McAllister
8	Education for Citizenship and Diversity in Irish Contexts (published out of SCoTENS conference report by Institute of Public Administration, Dublin)	2008	Una O'Connor and Gerry Jeffers
9	A review of Science Outreach Strategies, North and South	2008	Kevin Davison, Veronica McCauley, Christine Domegan, William McClune, Eileen Martin & Emma McKenna, Sally Montgomery
10	School Leadership Policy and Practice, North and South: Conference and annual reports	2008	Andy Pollak and Patricia McAllister
11	Becoming a Teacher: Primary Student Teachers as learners and teachers of History, Geography and Science – an all-Ireland study	2009	Fionnuala Waldron, Susan Pike, Richard Greenwood, Cliona Murphy, Geraldine O'Connor, Anne Dolan, Karen Kerr
12	Professional Development for Post-Primary Special Education Needs in Northern Ireland and the Republic of Ireland	2009	Elizabeth O'Gorman, Mairin Barry, Sheelagh Drudy, Eileen Winter, Ron Smith





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No	Title	Date	Authors/Editors
13	Valuing Education Technology in Schools in Ireland, North and South	2010	Conor Galvin, John Anderson, John Gardner, Anne McMorrough, Stephanie Mitchell, Kathryn Moyle,
14	Reflective Practice: Challenges for Teacher Education North and South: Conference and Annual Report	2010	Andy Pollak and Patricia McAllister



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SCoTENS FINANCIAL POSITION

SCoTENS Statement of Affairs	1 Feb 07 - 31 Jan 08	1 Feb 07 - 31 July 08	1 Aug 08 - 31 July 09	1 Aug 09 - 31 July 10
Balance Carried forward 1 February 2007	30,335.64	30,335.64	47,041.49	103,065.75
Income				
DEL/DE	50,000.00	50,000.00	50,000.00	25,000.00
DES		50,000.00	50,000.00	25,000.00
Nuffield Foundation		20,000.00		
Conference Fees		9,016.23	8,495.16	13,358.52
Income Received from SCoTENS Members	51,540.06	64,657.84	69,707.01	52,377.90
Total	131,875.70	193,674.07	178,202.17	115,736.42
Less adjusted figures from Account	11,368.00	11,368.00	6,876.36	
Total Income	120,507.70	182,306.07	171,325.81	115,736.42
Expenditure				
Research Projects	32,606.70	54,494.05	50,296.88	39,569.14
North South Student Teacher Exchange Project			28,456.29	26,004.48
Conferences and associated costs	28,906.43	31,410.73	12,002.66	26,315.21
Research publications and associated costs	7,638.78	7,638.78	7,496.98	19,758.48
Mileage	343.20	569.15	2,607.17	844.16
Sundry Expenses	600.41	862.01	7.90	301.17
CCBS Admin & Professional Services	30,828.50	44,755.00	57,762.17	37,926.50
Total	100,924.20	139,729.72	158,630.05	150,719.14
Less adjusted figures from Accounts	83,948.080	83,948.00	109,828.50	66,500.00
Total Expenditure	16,975.94	55,771.72	48,801.55	84,219.14
Net Surplus	103,531.76	156,869.99	122,524.26	31,517.28
CCBS Admin & Professional Services		30,828.50		
Research projects - amounts pledged to	36,635.00	79,000.00	66,500.00	78,122.00
Balance carried forward	66,896.76	47,041.49	103,065.75	56,461.03





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