This paper examines teacher education issues in Northern and Southern Ireland, setting the scene for an invitational conference for teacher education professionals. It begins by discussing such key issues as the desire to contribute, help set the scene, help set the scene for teacher education professionals, and help set the scene for teacher education professionals in Ireland. Seven conference objectives include: launching professional discourses about policy in Ireland and the wider European community; addressing issues of difference between the Northern and Southern systems; and identifying possible shared initiatives. The paper discusses current practice and concerns and emerging futures, noting how Ireland differs from England and Wales and examining the development of three working groups to address: teacher competencies; courses, cooperation, and initial teacher training (ITT) structures; and the coordination of ITT, induction, and early inservice training. It also discusses partnerships between schools and higher education institutions, current practice in teaching, and current practice in research. It examines current concerns such as the relationship between personal development and institutional development, the role of the Irish language in the Northern and Southern systems, and the funding of teacher education in the North. It concludes by examining issues of difference, commonalities, and complementaries. (SM)
Introduction

The purpose of this paper is to contribute, with a colleague from Cork, to setting the scene for an invitational conference for teacher education professionals in Ireland - North and South.

It occurs to me immediately that, in writing this one sentence paragraph, I have already encountered several of the key issues that we have to face in teacher education in Ireland:

- I want to "contribute".

Of all the potential contributors to teacher education in Ireland, to whom do we pay attention, to whom do we allocate resources? How do we marshal their contributions into a coherent whole? Is the balance of resource distribution to the teacher education institutions equitable? What resources, if any, should be committed to engendering collaboration between North and South? Is there an alternative to distributing resources through the teacher education institutions? In fact, what constitutes a 'teacher education institution'? Is a school a teacher education institution? Is a classroom a teacher education institution? What legitimate claims can various groups make to 'ownership' of the training of teachers?

- I want to help "set the scene".

I have a choice to make, as do others when they talk or write about teacher education. Do I paint, conveying a vision? Or do I plot, using statistics to make meaning? Do I talk facts, or values, or both? In any case, where does the horizon lie? Do I try to see beyond the current reach of normal vision? Do I try to move my vantage point?

- I want to help set the scene for "teacher education professionals".

When Professor John Coolahan of NUI Maynooth and I set out on the planning of this conference, we had little doubt as to our constituency. It was those employed by the teacher education institutions, our fellow professionals. It soon became apparent, however, that our 'partners' (as we have begun to call them relatively recently) in schools, Teachers Centres, Area Boards and Departments of Education have as much right to call themselves and be called 'teacher education professionals' as 'we' have. In Jean Lave's terms, where does the periphery of the community of practice lie? And, more to the point, is it right to allocate anyone to the periphery of our discourse, however legitimate or illegitimate we who see ourselves as the centre of things conceive their practice to be? Should the teachers, the union leaders, the school principals, the parents, the pupils, the publishers, the web designers, the employers, be attending our conference? When do we invite them to join us? Is that the way to shake us into an awareness of the reality of things?

- I want to help set the scene for teacher education professionals in "Ireland - North and South".

I wonder - have we chosen the right euphemism to define the physical boundary of the scene? To be sure, we will have key contributions from America and Australia, and we have an 'observer' from across the water in the form of a representative of UCET. But we all know,
don't we, that in using the term “Ireland – North and South”, we are making a political statement about the boundaries of our discourse. Perhaps during the conference, through what Seamus Heaney might call a “micro-tilt in language”, we will contribute in a small way to political development in this part of the world.

Objectives

The declared objectives of the conference, penned in the first instance by John Coolahan and myself, and then pruned and polished by the Conference Planning Group are as follows:

(i) to launch a professional discourse about present policy and its future development in Ireland – North and South, and in the wider context of the European Community;

(ii) to allow teacher education professionals to develop a greater understanding about teacher education in both jurisdictions, to consider current practice, current concerns and emerging futures;

(iii) to address issues of difference between the two systems and to look for commonalties and complementarities;

(iv) to identify possible shared initiatives and cross-border collaborations, including co-ordinated research and development;

(v) to identify issues of concern, e.g., questions of qualification recognition and provision of resources;

(vi) to strengthen existing inter-professional and inter-institutional linkages;

(vii) to stimulate the creation of a framework for promoting continuing collaboration between teacher education professionals and institutions in Ireland – North and South, e.g., in the form of a Standing Conference.

At the risk of producing a paper that in print bears little resemblance, at least in terms of its structure, to its presentation at the conference itself, I will make use of these objectives to shape the following observations about the state of teacher education in Northern Ireland. The following section attempts to satisfy objective (i), launching a debate about present and future policy, by addressing objective (ii), building a greater understanding of the system in the North, where it currently stands and how it might develop.

Current practice, current concerns and emerging futures

Breaking free

The current state of affairs in teacher education in the North, and by implication, current policy and its future evolution, can best be explained by reference in the first instance to the gradual evolution of difference over the past ten years from what has been happening in England and Wales. (I suppose I could have chosen to start in the 20's and address first the gradual evolution of difference between the systems in the North and South, but I feel that that task is best left to the historians among us.)

It is easy to say and quite often said that teacher education in Northern Ireland has been in the shadow of teacher education in England and Wales for a long time. The problem with the shadow metaphor is that in a shadow implies lack of growth, even stultification, which in its extreme form is (according to my Collins dictionary) 'to cause to appear absurd or inconsistent'. I cannot wholly accept these implications and five minutes thought in search of a more suitable metaphor made me reflect that in the world of teacher education in N. Ireland we have more than one source of light, with partial shadow as the outcome. And depending, of course, on the proximity and power of the source, little noticeable shadow at all. It cannot be very often that the Department of Education in Northern Ireland is likened to a 'source of light', but in this context I think the comparison is apposite and
justified. On the whole, we professionals in teacher education in N. Ireland have been well served by the Teacher Education branch in DENI and by the Northern Ireland Inspectorate.

They say that comparisons are invidious, but I can’t miss the opportunity to make one. I’ll leave it to others to judge whether it is out of place, too harsh, or based on too little evidence. Can anyone in teacher education in the North contemplate for a second describing our colleagues in the Inspectorate as “arrogant, incompetent and bullying … dishonest, incompetent and unscrupulous”? I think not. But these are the descriptors reportedly used by Professor Ian Stronack, Professor of Education at Manchester Metropolitan, to describe a group of Ofsted inspectors engaged in a school inspection. ² It seems that there may well be some shadowed corners in England and Wales that could do with light being shed upon them. But enough of that – I am supposed to be shedding light on the Northern Ireland scene.

In fact I have already begun to do so, by making this crucial point. We benefit hugely from having a local civil service serving no fewer than three masters, the direct rule Minister, the local political administration waiting and working in the wings and, the one constant in the equation, their ‘clients’ in the field - the people, including us teacher educators, working in the education and training system and the people, including our students, who are seeking to benefit from it.

Over the last ten years we have seen major steps taken in the development of teacher education in the North and much of the credit for these, on the whole positive steps, has to be ascribed to the strategic and tactical leadership of the Department operating through key members of its Education and Training Inspectorate. In the early 90’s, thankfully (one could almost say purposefully) we lagged behind England and Wales in the pace of change. But the collaborative thinking and planning that took time then has paid off now. If anything, we are now well ahead. There have been tensions, and still are, over the pragmatics of implementation and, from time to time, over principles too, but for the most part the relationship between we teacher educators and the Department has been highly professional, mutually respectful and productive.

Despite having our own Secretary of State for Education in the Northern Ireland Office, (or probably more realistically, because of that fact), much of the pressure for change in teacher education in the North in the early 90’s originated in Westminster with the publication of Circular 9/92 by the Department for Education. The essence of the circular was a requirement for teacher education institutions in England and Wales to move into partnership with schools in the delivery of teacher education. The Government expected all secondary and middle schools, sixth form and tertiary colleges, both maintained and independent, to have an opportunity to become partners in initial teacher training if they wished to do so. It was looking for a partnership in which the partners would exercise a joint responsibility for the planning and management of courses and the selection, training and assessment of students. It expected the nature of responsibilities to differ from partner to partner. Schools would have a leading responsibility for training students to teach their specialist subjects, to assess pupils and to manage classes; and for supervising students and assessing their competence in these respects. HEIs would be responsible for “... ensuring that courses meet the requirements for academic validation, presenting courses for accreditation, awarding qualifications to successful students, and arranging student placements in more than one school.” ³

To an eye looking across to England and Wales from Northern Ireland, it seemed as if the intention was that schools would do the training and assessment and that HEIs would do nothing but residual hands-off administration. This was school-based teacher education with bolted on HEI validation, or so it seemed. It is fair to say that teacher educators in Northern Ireland were extremely interested to see what would happen in England and Wales, how the debate would fall out in practice, for previous experience had shown that the evaluation of experience ‘on the mainland’ would have considerable impact on how things developed in Northern Ireland.

At the centre of the proposals was the Minister’s requirement that the minimum time to be spent in schools should be very substantially increased from then common practice and that substantial funds should be transferred from HEIs to schools to take account of the new responsibilities of schools. It is true that at the time there was a debate in progress about the nature of teacher education. The work of Hargreaves⁴, and the debate between Furlong et al.⁵ and McIntyre⁶ are illustrative of the attempts then being made to reach into the core of the educational issues involved in the debate about partnership - issues such as the interaction between the different components of courses, the nature of different
forms of professional knowledge, the challenge of practice on theory and theory on practice. But, pragmatically, the focus of attention of teacher educators in the North was on the definition of roles and the impact of transfer of funds from HEIs to schools.

The first move made by the Department of Education in Northern Ireland (DENI) in 1992 was to establish a review of Initial Teacher Training (ITT) “with the aim of achieving distinctive and appropriate forms of training while maintaining national accreditation through the Council for Accreditation of Teachers' Education (CATE)”. Here we see the attempt to concatenate two things: wanting and expecting to be different, on the one hand, and conforming to the requirements of the sovereign government, in this case manifested in the body of CATE, on the other. But, two years later, CATE was defunct, and DENI took up the leadership role, clearly intent on encouraging local decision-making. One could fairly describe the Inspectorate as pressing towards something rather more “distinctive and appropriate” than might otherwise have been possible had CATE continued to exist. The Teacher Training Agency was soon up and running in England and Wales, but there was no sign of an equivalent body being established in Northern Ireland. In the first instance the Inspectorate, and then NITEC (see below), filled the gap.

The three i’s model is born

At the first stage of the Review, three working groups were established, one looking at teacher competences and a second at courses, co-operation and initial teacher training (ITT) structures. Most significantly, the third was asked to look at the coordination of ITT, induction and early inservice training. What came to be called “the three i’s” was the focus of its work. Circular 9/92 had focused on ITT. In Northern Ireland, the vision was broader; eyes were set on the integration of the three i’s within a partnership employing a competency model as the mode of communication about general and specific purposes and achievements throughout initial training and the first three years of employment.

In early 1993, a fourth Development Group was established with the task of integrating the three group reports and by the time it reported, in June 1993, the market driven approach to establishing partnerships in England was beginning to throw up indications of an extraordinarily wide range of practice. We in Northern Ireland no longer had the easy option of closely following what was happening ‘on the mainland’, for all that could be seen to the relatively untutored eye was confusion. Indeed, such was the bad press being experienced by some of the new partnerships in England and Wales, many school principals in the North rather precipitously concluded that DENI was about to foist on Northern Ireland a system of so-called partnership teacher education that had already failed in England.

Of probably the most significance was the Development Group’s endorsement of the proposals on competences and the extension of the analysis and language of competence to include those expected of recently qualified teachers who had moved through induction into early inservice teacher education. Crucially, the competences were allocated to each of the three i’s and, on a different dimension, to the institutional partner best placed to promote that competence in those entering the profession. Thus the focus had shifted from an exclusive consideration of ITT to an inclusive analysis of the roles of the partner institutions in all of the three i’s. The production of an integrated competence development framework (see Figure 1 below) perforce did more than invite the participation and cooperation of the partners (the HEIs, schools and employers); it required it. The Northern Ireland Teacher Education Committee (NITEC) was established in 1994 under the chairmanship of Sir William Taylor. Its membership was drawn from schools, the Further and Higher Education sector, the five Higher Education Institutions (HEIs), the Area Boards, the Council for Catholic Maintained Schools, the Governing Bodies Association and (eventually) the teacher unions. NITEC quickly established itself as the crucible of partnership development and the engine for change in teacher education in the North.

Thus it was that Northern Ireland began the task of achieving something distinctive and appropriate - an integrated approach to the three i’s of teacher education. Paradoxically, the final step in this movement towards distinctiveness came in February 1996 when the schools said a resounding ‘No’ to one of the Minister’s proposals. The Minister, wisely it seemed at the time, decided to take any potential heat out of the debate about transfer of resources from HEIs to schools by striking a standard rate for all Northern Ireland institutions. He put the deal to the schools in October 1994 (the HEIs had little choice in the matter, it seemed) in the form of a consultation document and the majority of schools, having been told that participation in the partnership scheme was voluntary, politely but
pointedly declined to take part on the Minister’s terms. The response was clear: schools did not want the implementation of the reforms in the proposed configuration; nor, as it happened, did the HEIs. Earlier province-wide awareness-building seminars had made it clear that the major concerns were the perceived vagueness of the expectations to be placed upon schools, the inadequacy of the transferred resource and the nature of the legal obligations flowing from their transfer. The schools were worried about the sheer lack of time to do anything more than schools were already doing. They did not like the possibility of having different contractual obligations with different HEIs. They were concerned that weak students could no longer simply be turned away and they did not want to experience the tensions inherent in the dual role of assisting and assessing. Generously, they were also concerned about the massive financial blow that would be struck at the heart of the HEIs’ teacher education programmes. The message was – why fix something that is working well; why introduce such radical change in a system that was admittedly already strong?

The Minister, following the advice of NITEC, stepped back, declaring that there would no longer be a requirement for the transfer of funds from HEIs to schools, nor for schools to be involved in formal assessment. There would no longer be a need for formal contracts between schools and HEIs and participating teachers would not be required to be trained as mentors. Partnership would be encouraged and the extended period of placement in schools (e.g., an increase from 12 to 18 weeks in a 36-week PGCE) would stand. HEIs would be encouraged (without any extra resource) to induct teachers into appropriate supporting roles. The Department would carry out an evaluation of how the HEIs were approaching the establishment of partnership modes of teacher education within the new dispensation and at the end of each of two years, further guidance intended to support and guide the evolution of partnerships would be offered.

The Minister’s decision not to force the issue was a turning point of major significance. It took account of the realities on the ground, established the right of schools to be taken seriously in the business of teacher education and opened up the possibility of gradual evolution of genuine partnerships among professional equals.

Those partnerships are still evolving. One way of conceptualising the process is to imagine a wave of partnership development moving from left to right across the Figure below. As the first group of PGCE students has moved through system (they are now just completing the second year of their Early Professional Development), so the planning of their future has had to move ahead of the wave of implementation on the ground. Right now, the wave front of serious planning is focused on the fourth column, Year 4 Onwards, where the task is to develop a comprehensive rationale for Continuing Professional Development.

**Figure 1**
*An integrated, partnership-based approach to initial teacher education, induction and early professional development*

<table>
<thead>
<tr>
<th>Initial Teacher Education</th>
<th>Year 1</th>
<th>Years 2 &amp; 3</th>
<th>Year 4 Onwards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence based BEd and PGCE courses</td>
<td>Induction</td>
<td>Early Professional Development (Accreditation options are available from HEI)</td>
<td>Continued Professional Development</td>
</tr>
<tr>
<td>Formative Profile</td>
<td>Career Entry Profile</td>
<td>Induction</td>
<td>Professional Development Activities focus on curriculum, management and education technology</td>
</tr>
<tr>
<td>Report</td>
<td></td>
<td>Action Plan</td>
<td>Staff Development &amp; Performance Review</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The above table shows the relationship, in a schematic form, of the three stages of teacher education to each other and to continuing professional development

**Implementing the first i**

Over the last four years the HEIs have been taking the lead role in implementing partnership teacher education in the first of the three i’s, the initial training stage. The secondary PGCE’s, followed a year later by the newly introduced Primary PGCE at Coleraine, were the first to experience the full impact
of the new competence framework and its associated formative assessment procedures and career entry profile production. The four year B.Ed.'s at St. Mary's and Stranmillis are now following through. Approaches to the development of partnership arrangements with schools have varied somewhat from institution to institution, but all have been operating within the same structure and set of shared purposes. They had all shared in the production of the first version of "The Teacher Education Partnership Handbook", which defined the integrated framework in remarkably fine detail. In successive years, as implementation took place, it was clear that the institutions shared a commitment to refine the model on the basis of experience. In this regard, they were aided by the Department's rolling evaluation study of the development of partnerships, which along with a growing readiness of the institutions to share experiences, not so good as well as good, allowed 'good practice' to spread from institution to institution. This sharing process was facilitated by NITEC as it took steps on a yearly cycle to refresh the nature of the partnership between the HEIs, the schools and the employing authorities.

In the event, the Department's evaluation study was extended for third year. Its findings indicate steady progress towards the full implementation of the model, with students from year to year becoming progressively more aware of the competences expected of them and of the roles expected of the various partners at different stages of the courses. In the first years difficulties had been experienced in conveying the message to schools. More particularly, there was evidence that communication within schools was failing to ensure that all relevant staff were aware of what was expected of them as they made their contribution to partnership training. With no 'extra' resources made available to carry out mentorship training, the HEIs struggled to find the most efficient and effective means to induct their school-based partners into the roles expected of them. As the PGCE cycle was repeated on a yearly basis, the ideas that seemed to work were passed from institution to institution, both directly and via the Inspectorate's evaluation team, and over the last four years very considerable progress has been made on a broad front. The first i is now 'bedding down'.

The second and third i's

As the teacher education institutions, working with schools and the Inspectorate, focused on the implementation and evaluation of the first stage, NITEC moved its attention to policy development related to implementation of the second and third phases of the integrated model. A Committee for Early Professional Development (CEPD) was established. It embarked on development work with considerable energy and, serviced by a seconded member of the Inspectorate, made rapid progress against deadlines determined by the graduation of the first wave of student teachers to the newly established category of 'beginning teacher'.

It had been agreed by NITEC that in the second and third i's the lead responsibility would move to the Education and Library Boards Curriculum Advisory and Support Service (ELB CASS) and the schools respectively. Just as development of the first phase of the integrated model had thrown up the need to reach agreement on the division of responsibilities between the partners, on assessment methodologies, formative and career entry profiles and the like, so CEPD had to define the roles of the various partners and tackle the development of the so-called 'Induction Action Plan' and the 'Professional Development Activities' to be required of the beginning teacher in the second and third phases of the integrated model.

The Induction Action Plan is the key to establishing wide spread good practice in the Induction phase. While it is expected that the development, implementation and regular review of the beginning teacher's Induction Action Plan will be carried out by a designated teacher-tutor, the Plan nevertheless constitutes an agreement between the principal of the school and the beginning teacher as to the work that needs to be done in the classroom during the Induction year to consolidate the profile of competence which has been outlined in the Career Entry Profile. The management framework for the process of induction is spelt out in detail in the Teacher Education Partnership Handbook. The roles to be played by the Board of Governors, the principal, the teacher-tutor, the Head of Department (secondary), the Key Stage Co-ordinator / Year Group Teacher (primary), the ELB CASS, the HEIs and the beginning teacher are defined in great detail. For example,

"the teacher-tutor should:

- get to know the beginning teacher professionally and personally;
create an open, supportive and challenging environment;
manage and co-ordinate the school’s induction programme;
prepare an induction information file for beginning teachers which addresses the following areas: (school aims, ethos and mission statement, routines, administration, policies and procedures, pupil issues, resources/facilities, ancillary and auxiliary staff, health and safety, extra-curricular activities, parental contact, school induction programme, Children Order, Code of Practice for Special Needs);
ensure that the beginning teacher has a copy of the job description;
monitor and evaluate progress, including through lesson observation, and provide continuous feedback, and, with the beginning teacher, identify development needs;
ensure that the development needs of the beginning teacher are being met;
provide, when needed, pastoral support;
oversee the development, implementation, and regular review of the beginning teacher’s induction action plan;
monitor and evaluate the quality and effectiveness of the school support programme for beginning teachers;
encourage the beginning teacher to reflect on their teaching and evaluate the pupil’s learning;
and so it goes on – another seven to list:
facilitate the beginning teacher’s involvement in the ELB induction programme;
provide an appropriate timetable and give consideration to an appropriate amount of non-contact time;
arrange for the beginning teacher to observe examples of good practice (in any school);
provide advice and guidance on dealing with parents;
help beginning teachers to identify their concerns;
provide support for key staff involved in the development of the beginning teacher;
liaise with key staff regarding the progress of the beginning teacher.

This remarkable level of detail, which is characteristic of all the documentation associated with the integrated model, illustrates the extent to which CEPD penetrated the complexities of the processes involved in inducting beginning teachers into the profession. When I think how I was ‘left alone to get on with it’ during my first year of teaching many years ago, I wonder how much damage I did to children’s learning as I learned to ‘survive’ on my own. In stark contrast, today’s beginning teachers are very strongly supported by colleagues inside and outside the school. However, one suspects that very much more is expected of them now than was the case even a few years ago.

When the beginning teacher has successfully completed induction, normally after one year of full time employment, he or she moves into a two-year period of early professional development (EPD). A core group of teachers and teacher educators, working under the auspices of CEPD, consulted widely on the framework for EPD, and one of the very early suggestions to be made was that the EPD system, whatever it turned out to be in terms of classroom and school-based activity, should be supported through the Internet by a community of ICT-literate teacher educators drawn from schools, the ELB CASS and the HEIs. Several of the members of the development group were already very experienced in the use of ICT in support of initial teacher education, so it was not surprising that they welcomed this view and set about planning an ICT-based strategy for supporting the beginning teacher in his or her place of employment.

The outcome of their work should perhaps be seen as an earnest of things to come. It is described in a publication which includes a CD-ROM, a pre-paid postcard to be used by the teacher entering the EPD phase to pre-register, and instructions on how to access the associated EPD website. The website, hosted by NINE, allows the beginning teacher to complete the registration process, use a purpose built planning and presentation tool called PDA Writer, access an Open Forum, contact tutors, consult a professional library and build a file of evidence of completion of two or three cycles of classroom-based professional development covering curriculum, classroom management and ICT.

The central feature of the EPD phase of the integrated model is the ‘Professional Development Activity’ or PDA. Engaging in PDA enables the teacher to develop professionally through a process of evaluating and reflecting on their everyday work of planning, teaching and assessing in the classroom. It allows them to think through their strengths and needs, using the language of the teacher competence model that they have become familiar with during their passage through the first two phases. It provides them with the opportunity to take responsibility for their own professional development, to plan at least two cycles of goal-setting, preparation, teaching, evaluation and review, all the time with the focus on children’s learning. While individual responsibility for planning and action is clear, it is
not done without support. A designated teacher-tutor is at hand inside the school. And through the Internet, there is access to the wider community, beyond the classroom and the school, to “open, informed, critical dialogue among all the partners”. They join a “community of inter-dependent professionals”. In my introduction to this paper, I posed the question: where does the periphery of the community of practice lie? My feeling is that part of the answer lies in the extent to which we open up this virtual community of inter-dependent professionals to people who regard themselves as having something professionally relevant to say, and perhaps more to the point, have the time to say it.

I pointed earlier to the fact that the HEIs had experienced difficulties developing mentors in schools within the available resources. One of the factors involved at that time was the reluctance of teachers to take on a job (supporting the student-teacher on ITT placement) that was still seen to be the sole preserve and responsibility of the HEI tutor. Now, as the EPD phase is rolled out, it has become clear that teachers must develop mentorship skills to cater for the needs of beginning teachers. In this third phase of the integrated model schools are ‘in the lead’, and cannot shirk the responsibility of supporting their own beginning teachers. Training for this form of peer mentoring has been provided by ELB CASS and one of its outcomes has been the spread of developing expertise into partnership-based mentoring of pre-service placement students.

Current practice in teaching

So far in this paper, I have concentrated on outlining where the Northern Ireland teacher education has ‘come from’ over the last ten years; now I have to turn to where it currently stands.

The first point to make is that it is still heavily engaged in the continued implementation, evaluation and refinement of the three i’s model. The second is that, as can be seen from the course lists presented below, it is also engaged, and has been throughout, in the provision of continuing professional development (CPD). However, as alluded to above, the focus of partnership development is now in the process of moving towards CPD.

I think that my best approach to the task of describing the current situation is probably to make use of some of my PowerPoint slides to help give a brief sketch of teacher education in the North.

Using the conventional definition of a teacher education institution yields the simple statistic of five (5) such institutions in N. Ireland; some would say, one or two, or even three or four, too many. (Not me, of course; nor, I imagine, any of my fellow teacher education professionals working in the Northern HEIs.)

They are the Open University, St. Mary’s University College, Stranmillis University College, the Graduate School of Education at Queen’s University, Belfast and the School of Education at the University of Ulster, which operates off three campuses at Jordanstown, Coleraine and Magee.

Alongside the HEIs, with statutory responsibility for the continuing professional development of teachers, lie the five Education and Library Boards.

The Boards, the Council for Catholic Maintained Schools and the Governing Bodies Association represent the employers.

Slide 1. The institutions

- three universities: Queen’s, Ulster and the Open University
- two previously monotechnic University Colleges
  - Stranmillis University College
  - St. Mary’s University College
- controlled, maintained and integrated school sectors
- 11+ selection system (grammar and secondary schools)
- circa 600 new teacher education students per year serving 1.7m. population
- employers are 5 Area Boards, CCMS and GBA
- Northern Ireland Teacher Education Committee now six years old
- a proactive Inspectorate of Education and Training
- a new administration waiting (and working) in the wings
The current distribution of courses across the five institutions has arisen largely through so-called historical processes, the relative late-comers to the scene being the Open University and the University of Ulster (founded in 1968).

Over the years, some rationalisation has taken place in Initial Teacher Training, usually at the 'request' of DENI. When the four year secondary concurrent courses at the University of Ulster were replaced by the one year PGCE, the opportunity was taken to re-distribute subjects between Queen’s and Ulster, with each institution from then on exclusively offering certain subjects, e.g., the sciences, mathematics and the languages at Queen’s and art, music and physical education at the University of Ulster. Again, when Ulster introduced the 38-week primary PGCE in place of its four-year integrated BA/BSc Primary course, the Department sought the Belfast Colleges’ agreement that the small quota entering primary PGCE’s in those institutions should be transferred to their four-year B.Ed’s. Likewise, when the Open University introduced its part-time 18-month primary and secondary PGCE’s, these courses were allocated a relatively small quota, small enough not to distort unreasonably the offerings of the other HEIs.

This process of rationalisation of ITT has, on the whole, produced what might be called a reasonably balanced portfolio of ITT course provision across the five HEIs. 'Harmonisation' might be too strong a word to describe the situation, but in my view, ‘balance and increasing harmony’ would. The process of co-creation of the integrated framework of the three i’s has helped enormously in creating the climate for further collaborative movement towards a coherent and balanced system.

Progress is not so far on in the field of Continuing Professional Development, where there is still room for further coordination and collaboration between the HEIs, ELB CASS and the schools. There are signs of interesting possibilities emerging, however. One example, probably of very great significance, is the work being carried out by a group representing all three potential sets of partners plus the Inspectorate. They are following through on debate initiated by the appearance of what has come to be called “the Bridge Paper”.

Slide 2. The courses

- Stranmillis and St. Mary’s University Colleges:
  - 4 year B.Ed (Hons) for Primary Teaching
  - 4 year B.Ed (Hons) for secondary Business Studies; Craft, Design and Technology and Religious Education/Studies
  - 38 week PGCE for primary Irish medium schools at St. Mary’s
  - increasing involvement in Advanced Certificate and Postgraduate Diploma and Masters programmes
  - diversification into non-professional courses, eg. Childhood Studies

- Queen’s University
  - 36 week Secondary PGCE’s in 11 allocated subjects
  - Diploma in Advanced Studies in Education programme
  - PGCert in Teaching and Learning in Higher Education
  - M.Ed.
  - Ed.D. and Ph.D.

Slide 3. The courses (cont’d)

- Open University:
  - 18 month part-time PGCE for Primary and Secondary
  - Postgraduate Diploma and Masters programmes

- University of Ulster
  - 36 week Secondary PGCE’s in 8 allocated subjects
  - 38 week primary PGCE
  - PGCert/PGDip/M.Sc. in Education Management
  - PGCert/PGDip/M.Sc. in Education and Contemporary Society
  - PGCert/PGDip/M.Sc. in Expert Teaching
  - PGCert/PGDip in Further and Vocational Education
  - PG Cert in University Teaching
  - Ed.D. and M.Phil/D.Phil

- Other institutions offering teacher education in N. Ireland
  - CPD by distance education: eg U. of Greenwich, U. of London
  - incentives for ITT in England and Wales
The paper sets out to explore, in broad outline, a structure for teacher development and does so by differentiating three career development routes. The first would be taken by teachers who want to experience continuous professional development as they spend their career in the classroom—the "Skilled and Experienced Teacher (SET) Route". The second would be targeted at those teachers who, while wishing to spend a life-long career in and close to the classroom, would also want to train for and hold middle management responsibility, the Middle Management (MM) route. The third would cater for teachers moving towards senior management and headship. This would be called the Senior Management (SM) route and would involve moving beyond the MM stage into the Northern Ireland Professional Qualification for Headship.

I would concur with the author’s view that the current provision of CPD in Northern Ireland is not yet sufficiently structured, nor clearly enough articulated. It is not easy at the moment for the teacher to take ownership of the development process; to be proactive in shaping their career through engagement in tailored professional development opportunities of the type described above. Despite the fact that there has been in operation for some time a project aimed at developing a system wide credit accumulation and transfer system (NICATs) it is still not easy for teachers to transfer credit from institution to institution. The provision by CASS, the HEIs and others, while of good quality, as yet lacks the kind of over-arching coherence now apparent in the three i’s.

It is inevitable that many questions arise as soon as one attempts to draw all the members of the "Northern Ireland Teacher Education Partnership" into a CPD planning and implementation process. I understand that these are now being tackled by a group of colleagues (let’s call them the ‘Bridge Group’) with a view to having some pilots running in the SET and MM routes in the coming academic year (2000/2001). No doubt the outcomes will be of great interest to all the HEIs and ELBs, as well as the schools and the participating teachers.

Current practice in research

Space does not permit a comprehensive review of the research being carried out by teacher educators in Northern Ireland. However, it is worth noting that the research effort is substantial and of high quality. In the most recent Research Assessment Exercise carried out in the UK, both Queen’s University and the University of Ulster achieved high volume 4’s on a scale of 1 to 5*. This score signals that most of the research is seen to be of national significance and a substantial proportion of international quality. In terms of quality, this puts both institutions well inside the top quartile of education departments in the UK. What is more, the research spectrum covers a wide range, from research commissioned by DENI to inform policy development to independent research of significance to the wider community. An example of the former is the research by Moran, Dallat and Abbott (1999) on the contribution made by schools in Northern Ireland to providing support for the professional and personal development of newly qualified teachers14. A very recent example of the latter is the recent research by Gardner and Cowan (2000) on the efficacy of the testing system used in the 11+ selection procedure15.

Current concerns

From what I have written so far, one might get the impression that everything in teacher education in Northern Ireland is going smoothly, that change is being embraced and coherence is the order of the day. Not so; there are still a number of concerns, e.g., about the limits being placed on the number of pre-service students being trained in Northern Ireland (as distinct from the number being trained in the UK for potential employment in Northern Ireland), about the negative impact on recruitment of the financial incentives now being offered in England and Wales, about the mode of quality assessment to be used by the Department when the new partnership courses are accredited, about the shortfall between the level of expenditure required to develop partnerships, deliver courses and reach the quality standards expected and the revenue generated from course fees and block grant.

For illustrative purposes, I will give just three examples of the many other concerns I have about developments in teacher education:

(a) My first example is about the relationship between personal development and institutional development. I wonder how we can within a partnership develop mechanisms to be used to ensure the highest possible institutional relevance of work carried out by individual teachers during exposure to continuing professional development. It is a complex enough task to help a
teacher identify a classroom- or school-related issue or concern that impacts upon the quality of their own personal practice, to explore the context in sufficient depth to yield the possibility of purposeful change, to help them refer to relevant research, to provide them with the guidance and the resources to take appropriate action, gather data reliably, and review, reflect and report on outcomes. It is an even more complex task to make this happen within a partnership framework and ensure that the outcome of the work, and that of other teachers in the same school, both informs school development policy and positively affects its implementation. Only a very well resourced and very well co-ordinated teacher education partnership in continuous discourse could be expected to achieve maximum impact of tailored individual professional development activities of this sort on whole school development and, beyond that, whole system improvement.

(b) My second example is very different. It is but one tiny element of the whole question of the role of the Irish language in the two education systems – North and South. At present, primary teachers who have taken their initial training in the North are expected to demonstrate competence in Irish within two years of taking up employment in the South. And yet, just last year, a major Teachers Union proposed that legislation should be introduced in the South making it the responsibility of the school, not the individual teacher, to ensure the child’s entitlement to a curriculum incorporating Irish. Were such legislation to be introduced, it would remove the absolute necessity for all teachers to be qualified in Irish and, by implication, open the possibility of employment to those in the North whose cultural background (educational deficit, if you insist) could cause them to feel excluded as potential members of the work force, irrespective of any other merits. But will it be introduced?

(c) My third example concerns the funding of ICT in the teacher education system in the North. Unquestionably there is a lot of investment flowing into the use of ICT in the teacher education sector in Northern Ireland. It comes from at least two directions: on the one hand, through direct infrastructural funding to (or through) the institution in the form of block grant; on the other, through external ring-fenced research and development grants to be used for negotiated purposes and won in competition with other institutions. In the case of the former, the two Schools of Education have had to compete with other departments in the host university while the two Colleges of Education benefited (or suffered, depending on where you sit) from historically determined direct funding from the Department. In the case of the latter funding for R & D projects, some institutions are favoured at any one time, others not.

This approach to funding contrasts starkly with the approach being used in relation to schools, where ring-fenced funding was made available against open criteria within the Northern Ireland Strategy for Education Technology. The only reference to the teacher education institutions in this strategy was to the need for them to set and achieve targets for internal staff development and to contribute to the training needs of school-based teachers by accrediting courses offered by others. There appeared to be no intention to invest directly in the ICT infrastructure or in staff development in the teacher education institutions. They were being left to get on with it, using their own existing resources.

It has to be admitted that one could claim that the strategy of benign neglect (if that is what it was) has worked reasonably well. The institutions have certainly made ground on internal staff development and some well-founded development projects are now in train, but my impression is that we would have been much further on, on a broad front, if the HEIs had been drawn into the investment strategy alongside ELB CASS and schools from the beginning.

The piecemeal approach to finding funding for ICT in the HEIs continues. The following extract from the minutes of a recent meeting of the Teacher Education Group (a sub-committee of the Education Technology Implementation Group) illustrates my point:

"Item 3 – <name1> informed the group that £5.25 million had been made available by DENI for the purchase of laptops for teachers and that 4,500 had now been ordered this year. Compaq had won the contract and are to supply the laptops. This will bring to 6,000 the number of laptops purchased under the Connecting Teachers to ICT scheme this financial year. It was stressed that these computers are to be given to schools – not individual teachers."
<name2> warmly welcomed the initiative on behalf of the group.

The group was told that the CT scheme has now been extended to Nursery Schools and that these schools will soon be receiving one laptop per school.

The inclusion of HEIs in the scheme was discussed and <name3> pointed out that they were not included in this present buy but it may be possible for HEIs to purchase under the same framework contract. He suggested that interested parties should contact <name4> for clarification. <name5> stressed that it was important for students to be trained on the same equipment as they would find in schools.

<name1> informed the group of a proposed leasing scheme for teachers that should soon be available offering rental of machines over a fixed three year contract which would include insurance and maintenance. The scheme could be available for as little as £5 per week and would be tied to the Education Awards scheme allowing purchases at several chain stores to be used to reduce the monthly payments."

I cannot help asking the question: would it not have been simpler to have included the HEIs in the investment strategy from the beginning, and tied the purchase (three years ago) of laptops for all teacher education professionals to a requirement for staff development and involvement in pilot work within HEI, CASS and school partnerships? We might have been further ahead now if we had taken this approach.

I could add to this list of concerns, but instead I would prefer to ask my Northern colleagues to express their own concerns during the conference, to be open and specific about the issues that we have to face as teacher educators in the North. I take the view that most of these will be of interest to our Southern colleagues (and reciprocally, theirs to us Northerners) and that expressing them in conference can do nothing but good, provided that we concentrate on seeking common cause inside N. Ireland and between North and South in finding ways to address them.

Emerging futures

In a sense, I've already completed my task – that of informing the reader of some of the dimensions of the current teacher education scene in Northern Ireland and explaining how we have reached this position. In the process I have already alluded to some possible futures. I will deal now with one more.

One certain future that I have not yet referred to is the fact that the development of teacher education in the North over the next decade is likely to be very strongly influenced by the outcomes of the Curriculum 21 Review now in train. Yesterday (10-5-00) the Council for Curriculum, Examinations and Assessment (CCEA) launched its consultation on Phase 1 of the Review, undertaken between November 1999 and March 2000. The stated objectives of the Review are as follows:

1. "to clarify the aims and values of the school curriculum;"
2. to improve progression in skill development;
3. to improve curriculum relevance and enjoyment for all learners;
4. to provide greater balance, coherence and flexibility at each Key Stage;
5. to development assessment mechanisms which better serve curriculum aims; and
6. to develop strategies for managing future change" 18

In Phase 1 of the Review, now going out to consultation, the Council set up two widely representative Working Groups looking at the curriculum for Key Stages 1 & 2 and Key Stages 3 & 4 respectively. A remarkably high level of consensus emerged and, judging by the generally warm reception that the proposals received at yesterday's launch of the Review of Phase 1, it seems that there is a widely shared view that the proposals emerging under the first four of these objectives will be generally acceptable, provided that teachers receive generous support for classroom implementation and that time is taken to ease the new curriculum into place over a number of years. A big bang approach to implementation would be a disaster, according to Union leaders.
Highly significant for teacher educators are the statement of values seen to be underpinning each of the curriculum objectives, the framing of the latter in three clusters, the proposed “Framework for Generic Skills”, the proposals for improving relevance and enjoyment, and those for improving balance, coherence and flexibility. All of these, in various ways, have major implications for teacher education. I will deal with them very briefly, in each case adding a very few sentences indicating what I feel might be some of the likely implications.

**The statement of values**:

```
It is proposed that the following values are clearly stated as underpinning each of the Curriculum Objectives.

1. We value each individual’s unique capacity for spiritual, moral, emotional, physical and intellectual growth;
2. We value equality, justice and human rights within our society and our capacity as citizens to solve conflict by democratic means;
3. We value the environment as the basis of life and the need to sustain it for future generations;
4. We value each individual’s right to work and to earn a living in accordance with personal preferences and attributes.
```

What strikes me about these values, apart from the profound degree to which I personally share them, is the contrast between their breadth and comprehensiveness and the very particular and highly focused views of educational purpose which I encounter so often in the domains of subject specialists. Is it conceivable that we are about to see the end of the subject specialist’s stranglehold on the curriculum and examinations system? If we are, the implications for teacher education are far-reaching. Even a development of balance between the ‘old’ and ‘new’ subjects (see below) would be something of a revolution.

These underpinning values are apparent in the proposals for a revised aim and for a new framework of objectives. The latter is interesting in its framing around the proposition that the NI curriculum should provide learning opportunities for each young person to develop as an individual (encountering opportunities for the development of personal understanding, mutual understanding, personal health, moral character and spiritual awareness), to develop as a contributor to society (though growth in citizenship, cultural understanding, media awareness, and ethical awareness) and as a contributor to the economy and the environment (through enhancement of employability, economic awareness, commitment to sustainable development and environmental responsibility). In this analysis of objectives, one sees the emergence of the justification for new ‘specific programmes’ in Personal Education (KS 1-4), Citizenship (KS 3-4) and Employability (KS 3-4) as statutory entitlements. In the proposals that follow for the assurance of relevance and enjoyment and for balance, coherence and flexibility, one sees the determination of the curriculum developers to serve the needs of all pupils and not just the special interests of the academically gifted minority.

The current NI curriculum has six so-called cross-curricular themes, and the temptation might have been to simply tag on another two or three themes, leaving the schools to sort out exactly how the new objectives might be met through the distribution of learning opportunities across the subject-based curriculum. CCEA has taken the contrary view, that these newly emerging elements of the curriculum are of such importance as to justify their development as full programmes of study with attendant assessment procedures designed to assure their status in the eyes of pupils, teachers, parents, employers and providers of further and higher education. Clearly, if the proposals are to move through to the implementation stage more or less as they stand, teacher educators will have their part to play in building a new consensus.

**The Framework of Generic Skills**:

In the following table, I present a truncated version of the framework for generic skills presented by
CCEA for consultation.

<table>
<thead>
<tr>
<th>Personal Skills</th>
<th>Interpersonal Skills</th>
<th>Thinking Skills</th>
<th>Learning Skills</th>
<th>ICT Skills</th>
<th>Physical Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal skills are the means by which individuals can</strong></td>
<td><strong>Interpersonal skills are necessary for interaction with others:</strong></td>
<td><strong>Thinking skills are necessary for the realisation of human potential:</strong></td>
<td><strong>Learning skills enable the individual to engage with uncertainty and address the process of change:</strong></td>
<td><strong>ICT skills are the means by which individuals can engage effectively with a fast-changing technological world of information and communication:</strong></td>
<td><strong>Physical skills are necessary for efficient body movement and effective manipulation of physical objects in a range of contexts:</strong></td>
</tr>
<tr>
<td>- Self management</td>
<td>- Communication</td>
<td>- Critical thinking</td>
<td>- Self-assessment</td>
<td>- Communication</td>
<td>- Gross motor movement</td>
</tr>
<tr>
<td>- Self-reliance</td>
<td>- Working with others</td>
<td>- Creative thinking</td>
<td>- Learning styles</td>
<td>- Information handling</td>
<td>- Fine motor movement</td>
</tr>
<tr>
<td>- Assertiveness</td>
<td>- Empathy</td>
<td>- Caring thinking</td>
<td>- Goal-setting</td>
<td>- Modelling</td>
<td>- Observation</td>
</tr>
<tr>
<td>- Language and literacy</td>
<td>- Leadership</td>
<td>- Problem solving</td>
<td>- Information handling</td>
<td>- Measurement and control</td>
<td>- Audition</td>
</tr>
<tr>
<td>- Application of number</td>
<td></td>
<td></td>
<td>- Improving own learning and performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Creativity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

While teachers in primary schools will be very happy, I surmise, to escape what I have called the 'stranglehold of the subject', and embrace this framework as a guide to their structuring of the curriculum of Key Stages 1 and 2, this may not be the case for teachers at Key Stages 3 and 4, who may well and very reasonably expect their specialist subject to continue to be the most important structural feature of their professional lives. (Talking of 'structural features' and their role in shaping professional lives – it may not be too long before the most dominant structural feature of all, the selection procedure at 11+, disappears or is subject to very major modification. But that possible future, in my view a logical requirement if we wish the proposed new curriculum to succeed, is another story for another day.)

An emerging challenge to teacher educators will be to help ensure that subject teachers are equipped with the skills and values to allow them to contribute with colleagues to the development of generic skills in pupils and to the realisation of pupils' integrated development as individuals and contributors to society, the economy and the environment. Back to Jean Lave: the community of practice and discourse cannot have its boundary drawn around the subject specialist and the subject specialism. One way of ensuring that this will not be the case might be to use the Generic Skills Framework as a template for the identification of relevant research which should be brought to the attention of subject specialist teachers in each of the three i's and in continuing professional development. We may also have to review the teacher competences model and our agenda for research in teacher education in the light of the proposed curriculum changes.

Of course, speculation about the future is somewhat easier for a person, like myself, who will soon be moving into retirement. It is more difficult for the younger among us, who will have to take up or have placed upon them the responsibility to see policy into practice over the next ten years – and always within limited resources. My hope is that, in this conference, older and younger will jointly explore possible futures and jointly shape them to the common good.

Were I to have my way, the emerging future of schools and teacher education would have a number of features:

- more discourse as a way to learn about each other; less trust in quantification as a way of categorising people
- more time devoted to serving the generic needs of learners; less concentration on protecting the integrity of subject boundaries
- more attention to the entitlements of children as citizens and lifelong learners; less deference to the structural expectations of subject specialists
• less competition for exclusive rights over ‘clients’; more co-operation in the serving of their needs
• perhaps a little less individual theorising on action, compensated by a little more sharing of theory in action.

Beyond these personal and admittedly vague hopes for the future, I have the pleasure of being able to anticipate the contributions that my fellow delegates from Northern Ireland will bring to the task of fleshing out, for ourselves as well as for our Southern colleagues, the intricacies of policy and practice and the nuances of meaning to be attached to descriptions of what is going on in teacher education in Northern Ireland and speculations as to what our shared future might be.

Issues of difference, commonalities and complementarities

I am no expert on issues of difference, commonalities and complementarities between the teacher education systems, North and South. However, I have been privileged over the last four or five years to have had many contacts with colleagues in several of the Southern teacher education institutions. Throughout I have grown increasingly aware of difference, but equally I have encountered many examples of shared objectives and common concerns.

I am very conscious of the existence at the moment of two consultative committees working on proposals for the future development of primary and secondary teacher education in the South. I know relatively little about their work and look forward to learning more. But I cannot presume other than that they are tackling key questions such as the nature of partnership with schools and with the newly constituted Teachers Centres, the role (if any) to be played by the language of teacher competence, the role (if any) of the separate(d) disciplines of educational psychology, philosophy, sociology and history in the curriculum of teacher education, the duration and distribution of placement in schools, the role of ICT in teaching and learning, the contribution to be made by research, the universal (or otherwise) requirement for a qualification in Irish, the possible integration of the three i’s.

Including the last two items in my list of supposed key questions is something of an impertinence, I feel, since they both imply that our colleagues in the South should be looking North to see to what extent they should take account of our way of doing things and of our concerns. In return, I’m looking forward to hearing some impertinent observations from the South as to what we in the North might be paying attention to in the South as we continue the process of reform initiated ten years ago.

Shared initiatives and cross-border collaborations

The search for a new dispensation in the political relationships on this island is continuing. As I come to the conclusion of the first version of this paper I hear that the target date for restoration of the devolved Northern Ireland Assembly is 22 May 2000, two days after our Invitational Conference for Teacher Education Professionals in Ireland will have concluded its business.

Who knows - the reengagement of the Assembly in the business of building trust, reconciliation and prosperity may begin two days after we have established our formal mechanism, for example, in the form of a Standing Conference, to carry forward our own particular contribution to building trust, reconciliation and prosperity. Taking that particular action lies squarely within our collective control.

References

3 Department for Education (1992), Initial Teacher Training (Secondary Phase), Circular 9/92, Sanctuary Buildings, Great Smith Street, London.


Ibid., pp. 54-57.


The Northern Ireland Network for Education <http://www.nine.org.uk/login.asp>


To my knowledge, the first appearance of the capitalised phrase “Northern Ireland Teacher Education Partnership” occurs in the Bridge paper (see note 12). This form of usage, with its implication that the partnership between the HEIs, ELB CASS and the Schools, has reached formal, institutional status, could be another of Heaney’s significant ‘micro-tilts’ in language. I’m delighted to see it appear, having waited a long time to see this happen. (Vide my paper McMahon H, (1996) Towards partnership in Teacher Education in Northern Ireland – an unfinished story, *European Journal of Teacher Education*, 19, 3, where I first suggested the need for such an institution.)


Minutes of meeting of the Teacher Education Group (ICT), Friday 04 February 2000.


Ibid., p.12.

Ibid., p. 15.
III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:

Address:

Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:

Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

ERIC CLEARINGHOUSE ON TEACHING AND TEACHER EDUCATION
1307 New York Avenue, NW, Suite 300
Washington, DC 20005-4701

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
4483-A Forbes Boulevard
Lanham, Maryland 20706

Telephone: 301-552-4200
Toll Free: 800-799-3742
FAX: 301-552-4700
e-mail: ericfac@inet.ed.gov
WWW: http://ericfac.piccard.csc.com