Advisory Group on Post-PrimaryTeacher Education

Advisory Group on
Post-Primary Teacher Education

Chairman, Prof. Kieran Byrne
October 2002

Table of Contents

Advisory Group on **Post-Primary Teacher Education**

Chairman's Introduction

The occasion of this report on Teacher Education is timely. The teaching profession is now confronted with major challenges. Schooling has changed very radically in the recent past. Other review exercises of the education system have taken place and it is a time when a new legislative framework, better accommodated to the diversity of the range of duties and responsibilities of the teacher and school, is emerging.

It is anticipated that the Report will stimulate debate, secure a new platform for development and provide for a framework for teacher education models which is better disposed towards the well being of the profession and the service to society it wishes to provide.

As Chair of the Advisory Group I wish to thank each smember of the Group for their contributions and their committed approach to the work. Everyone involved immersed themselves in the work and gave of their time, energy and experience in an open and honest manner, disregarding any personal or institutional self-interest. I have felt privileged to work on this important task with such a group of professionals.

The Advisory Group wishes to put on the record its appreciation of the work of the staff of the Department of Education and Science who acted as Secretariat to the Group.

We are also grateful to the individuals and institutions who made submissions, attended seminars or who responded to our requests for information. They assisted us enormously.

We wish to thank also the range of experts who were generous enough to provide a variety of different observations and insights.

The effectiveness of the education system is inextricably linked to the well being of the teaching profession. This report focuses on the future development of the teaching profession and implementation of its recommendations will ensure the well being of the Irish education system into the future. As Chairman of the Advisory Group, I would urge that our recommendations be implemented.

Professor Kieran R. Byrne
Director, Waterford Institute of Technology
October 2002

Advisory Group Members

Professor Kieran Byrne (Chairperson)

Dr Geraldine Farrell	Mr Michael Corley
Ms Susan M. Parkes	Mr Fintan O'Brien
Ms Claire Broderick	Dr Maureen Killeavy
Dr John O'Brien	Ms Anne Marie Moore
Mr Padraig O Riordan	Mr John Dolan
Ms Rose Tully	Mr John McCullagh
Fr Nicholas Flavin	Mr Donal Garvey
Dr Anne Rath	Mr Paul Doyle
Mr John Mulcahy	Ms Pauline Gildea
Mr Tadhg O Siochain	Ms Maria Grogan
Mr John Mc Gabhann	

Secretary

Mr John Kelly	Ms Rosaleen Killian
Ms Antoinette Talbot	

Process Adopted by the Group

During its review of post-primary teacher education, the Advisory Group had the advantage of ongoing consultation with the teacher education community in Ireland. Furthermore, the group is indebted to a number of experts in the field of education (see below) who provided informative presentations and / or submissions. The vast experience and knowledge of these individuals contributed greatly to the discussions that took place during the course of the group's numerous meetings.

In addition, submissions were invited from interested parties concerning the current situation in relation to post-primary teacher education. Forty-five submissions (listed below) were received from a variety of third-level institutions, groups and organisations, as well as from consultants and individuals from Ireland and abroad.

List of Experts

Prof. John Coolahan	Prof. Harry McMahon
Prof. V.A. McClelland	Prof. Streth
Prof. James McCall	Prof. Snoek

Submissions Received

Third Level Institutions
Academy of Music
Dun Laoghaire Institute
Limerick IT – School of Art and Design

Mater Dei
National College of Art and Design
NUI Galway
NUI Maynooth
St. Catherine's College of Education for Home Economics
St. Angela's College
TCD in association with DIT Conservatory of Music and Drama & Royal Irish
Trinity College Dublin
University College Cork
University College Dublin
University of Limerick

Groups / Organisations
Amnesty International
Association of Secondary Teachers of Ireland
Bord na Gaeilge
Combat Poverty Agency
CDVEC Curriculum Development Unit
Engineering and Technology Teachers Association
Gael-linn
INCADDS
Irish Learning Support Association
Irish Travellers Movement
Joint Management Board
Leargas
Mol an Óige
National Centre for Guidance in Education
National Consultative Committee on Racism and Interculturalism
National Council for Vocational Awards
RSE Training and Support Service for Schools
Registration Council: An Chomhairle Chlaraitheachta
Royal Irish Academy
Teachers Union of Ireland
Udaras na Gaeltachta
Visiting Teacher Service
WEBS
Youthreach

Individuals

Padraic de Bhaldraithe	Frances Leahy
Adrian P Grebruers	Michael McKeown
John Heywood	Professor Desmond Swan
David Kearney	Michael Turner

Research Support

Infosearch ~ *Research and Information Services*
Ash View, Golf Links Rd., Castletroy, Limerick.   Tel: 061-331211

Preface
Shaping the Future of Teacher Education

In many ways, Ireland has made remarkable progress in education over the past four decades. A parallel positive achievement has been accomplished in social and economic development. Yet, some problems have persisted and remain to be tackled while the accelerating pace of change has given rise to further challenges and, it should be added, renewed opportunity.

At present the education sector at all levels is undergoing major change.
This is due to a number of forces:

- Changing social structures
- Economic expansion
- Competitive environment
- Increased participation and provision
- Technological developments

The purpose of this Report is to:

- Outline a framework for debate
- Highlight issues of concern and importance
- Point to an understanding of how teaching may develop in the future
- Anticipate needs and requirements of student teachers and the continuous professional development of teachers
- Seek to bring together in a collaborative way all the agencies involved in the promotion of teaching and learning for student teachers, teachers and teacher educators
- Emphasise the importance of teacher education as a critical component within the overall education system
- Acknowledge that teacher education and its related activities are in need of a major resource injection to ensure that the quality which has marked teacher education provision in the past can be maintained and developed on into the future

The underlying principle of this Report is that a dynamic and innovative system of teacher education, inclusive of continuous professional development, is a critical foundation to achieving educational progress. To enable pupils to optimise their individual potential in all of its manifestations, the teaching must be right.

To achieve these objectives a strategic framework is necessary to:

- Recognise the importance of teacher education in the development of a quality education system
- Provide on-going support for the capability of teachers to develop, reposition and innovate
- Protect the strong heritage and status which teaching as a profession continues to enjoy

- Promote the attractions of a teaching career and establish an environment which affirms the self-worth and professional self concept of teachers
- Ensure that the teaching capabilities of teachers are consistently developed to meet the ever increasing challenges which impinge on education
- Underline and emphasise the need to provide for continuous professional development of teacher educators

This broad framework within which the Advisory Group undertook its task is inclusive of the detailed terms of reference provided for the review. These terms of reference are:

'The Advisory Group will carry out a review and make recommendations to the Minister of Education and Science within 6 months on the content, organisation and structure (including teaching practice) of programmes in teacher education for second level teachers. The Group will have regard to the need to achieve breadth and balance in the programme in addition to addressing current and future issues on pre-service education for second-level teachers and to the desirability of teachers continuing to renew their skill throughout their careers.

The Group will also have regard to the following factors, *inter alia*, in carrying out its review:

a A comparative analysis will be made between consecutive and concurrent models of pre-service education

b Curricular changes at junior and senior cycle involving in particular the development of new programmes and methodologies to respond more effectively to the different and varied needs of a diverse student cohort

c Developments in relation to catering for children with special needs

d Developments in relation to in-school management and school development planning

e Initiatives to address problems in relation to disadvantaged pupils

f Developments in communications and information technology in school

The Group will also have regard to the following important features which should underpin the professional preparation of second-level teachers:

- The maintenance of balance between the personal and professional development of students as well as between the theoretical and practical aspects of their professional preparation
- The development of a firm understanding of the foundation disciplines of modern educational theory and practice
- The development of a good understanding of the educational needs of Irish language schools in and outside the Gaeltacht and of schools teaching through a language other than the mother tongue (e.g. French)
- The acquisition of the knowledge, attitudes and skills to enable student teachers to develop appropriate programmes and methodologies to respond to student needs

- The development of a good understanding of adolescent development and behaviour and of issues in relation to gender equality, cultural and ethnic diversity
- The development of the teaching and classroom management skills of student teachers
- The use of experienced teachers to guide and assist student teachers and to facilitate their subsequent induction into teaching

The Group will also review and make recommendations on the duration of teacher education programmes for second-level teachers, having regard, *inter alia*, to the following:

a The implications, if any, of the recommendations in relation to the content of the programme

b The scope for and desirability for addressing teacher training needs through subsequent provision in in-career development programmes

The Group will prioritise and cost its recommendations'.

Recommendations on the Remodelling of Initial Teacher Education Programmes

- Teacher education should be seen as part of an interlinked framework encompassing initial induction to continuous professional development. It is recommended that the teacher education programmes maintain their current durations. In place of the investment that might be made by extending the duration of programmes, it is recommended that this resource be concentrated on induction and beginning years in a formal and costed way

- The Enquiry Orientated model is best suited to teacher education programmes given the needs of student teachers and given the needs subsequently of the teaching profession

- The curriculum of teacher education programmes should be tightly integrated

- The teacher education process should be collaboratively designed and organised with inputs from the education partners

- Each teacher education department should establish a partnership board comprising the representatives of placement sites and the teacher education professionals, to be given executive responsibilities for the organisation and management of school based studies components

- Partnership boards should, as part of their executive functions, be required to negotiate the placement of student teachers with the school in which their school-based study is to take place

- Two different school sites should be provided for school-based studies and each of these periods should be preceded by an orientation studies component

- Teacher educators should emphasise the importance of reflective practice, particularly since this underpins the concept of lifelong learning

- Teacher education departments should develop and share inter-institutional databases of case studies

- New posts should be created to allow for the recruitment of teacher education professionals with specialisms in curricular areas who could be appointed as Course Leaders in the area of teaching methodology

- Assessment models commensurate with the learning culture of the programme environment should be devised with an emphasis on continuous assessment and a concentration on the portfolio studies as the principal content to be assessed

- Both the consecutive and concurrent models of teacher education have numerous merits and benefits and there is a place for both of them in the Irish education system. Therefore, the Group does not recommend that one model be chosen over the other

- Flexible pathways of accreditation, which encourage the accreditation of prior learning and which are underwritten by cross-institutional co-operation, will be of substantial importance in the development of continuous professional development model

- Teacher education programmes should have a strong orientation phase to allow students a period of observation in the schools where they are placed for the school based component of the programme

- Teacher education must inculcate an understanding of how inclusivity for all learners is a central tenet of schooling and teacher commitment in the educational system and must

provide for professional proficiency across the diverse spectrum of learning

- A compulsory module catering for diverse educational needs should be included in all teacher education programmes

- Student teachers must be made fully aware of the legislative requirements and statutory responsibilities which govern their profession

- There should be further support for teachers who are developing their career to include teaching in programmes other than mainstream programmes. This support should be provided at the level of continuous professional development by way of appropriately constructed models

- All teacher education departments involving the curricular area of Irish should make full-time permanent appointments in that area and in Irish teaching methodology

- Custom designed courses should be provided for teachers with a degree in Irish or with a proven ability in the language, to enable them to move to Gaeltacht schools or to Irish medium schools.

- In order to create a culture of awareness of Irish policies and to generate a positive attitude towards Irish, teacher education programmes should be linked with the Oifigeach na Gaeilge position (where this exists) within institutions

- The provision of teacher educators in the specialist subject curricular areas and the teaching methodologies should be more completely supported

- Personal development should permeate all aspects of teacher education programmes and compliment a compulsory personal development module

- Research should be carried out on beginning teachers to determine the efficacy of initial teacher education programmes and to assist in the design of induction and continuous professional development programmes

Recommendations on Induction

- Induction programmes should be provided for all beginning teachers
- Induction year should be seen as part of a continuum of the first five years of the development of the beginning teacher
- A designed process of partnership between school mentors, teacher education departments and the Teaching Council should be put in place to organise, manage, mentor and monitor the inductee teacher
- Agreement needs to be reached between education partnerships, the Teaching Council and the teaching profession concerning the maximum number of hours per week that the inductee may teach
- Portfolio exercises should be used in the induction programme as a means of extending the reflective practice model
- Teacher education departments should engage in research projects with inductee teachers to more accurately assess their needs
- Specific continuous professional development programmes should be introduced leading to a masters degree for the beginning teacher
- Induction programmes need to be suitably flexible to allow for a concentration on the individual school where the inductee is in post
- Induction programmes should seek to develop critical levels of personal awareness among beginning teachers
- Assessment should be supported as a key competence over the period of the initial programme

Recommendations on Continuous Professional Development

- Provision should be made for the professional development of teachers to meet various needs at various stages of their careers
- Flexible modes of accreditation and administration of continuous professional development need to be introduced
- Professional development initiatives should be founded on higher award accreditation opportunities, where participation in all forms of professional development will be recognised, assessed and awarded through modular building blocks to the ultimate level of formal post-graduate awards
- School based collaborative research carried out by teachers in teams or groups and supported by teacher education departments is best suited as a model for continuous professional development
- The model of the reflective practitioner should be further developed at the level of continuous professional development
- Teachers should play an active role in their own continuous professional development
- Schools should take a more proactive role in deciding the research topics most pressing and suited to their needs

- Schools should be provided with a continuous professional development budget which can be used to acquire the support and expertise of the teacher education departments
- Teacher educators should themselves be resourced and supported in their continuous professional development
- Subject associations should be supported in their role in professional development of teachers

Recommendations on Information and Communication Technologies (ICT) in the Learning Environment

- ICT should be used to extend the learning environment of teacher education at all stages
- Student teachers should be educated on the comprehensive integration of ICT into the teaching of all subjects
- Student teachers should be exposed to the positive formative force of ICT in their own learning
- Student teachers should be facilitated so that all teaching notes, schemes of work, etc. can be created electronically
- Databases of the narrative of teacher experience should be created
- The role of the NCTE needs to be extended to ensure multi-annual funding for schools and teacher education departments to further develop ICT in education
- Teacher education departments need to become major players in the provision of professional development at a distance using the new technologies
- The provision of broadband facilities to schools needs to be supported by collaborative efforts involving public and private partners
- The feasibility of extending the HEANET to all primary and post-primary schools should be examined
- Funding should be provided on a competitive basis to higher education institutions, in partnership with second level schools, in the development of high quality educational software for Irish schools
- Teacher education partnerships should strive to upskill teacher educators with ICT literacies

Recommendations on Access, System Design, Selection and Recruitment

- There should be ongoing and periodic reviews of quotas in line with the Points Commission recommendation
- Further work needs to be undertaken to ensure that data on which estimates may be based is up-to-date and reliable. Initially this may concern periodic surveys and subsequently the development of a teacher database
- Education departments should consider the provision of diverse routes of access to teacher education programmes
- The selection criteria for the NUI Higher Diploma in Education programmes should be extended to accommodate a greater diversity of entrants
- Account should be taken of a wider range of subjects in the primary degree of entrants in order to take account of ongoing curricular changes

Advisory Group on **Post-Primary Teacher Education**

- Places on teacher education programmes should take account of the subject needs in the system
- Special orientation programmes should be provided for returnees to teaching
- Career pathways should be established and special orientation programmes provided for mature students looking for a career change who wish to enrol in teacher education programmes
- Teacher education departments should give consideration to establishing programmes that would result in teachers qualified to teach at both primary and post-primary level. This should be considered for both beginning teachers and for experienced teachers involved in continuous professional development
- Consideration should be given to making a module on teaching and learning available at undergraduate level

Implementation

The Advisory Group believes that in order to implement many of the recommendations of this report, either a major research project or a number of smaller projects should be commissioned to pilot the introduction of a reformed model of teacher education. This approach should be well resourced to meet the requirements and to ensure maximum quality results. Invitations to tender should be issued for these research projects in accordance with HEA procedures . In the case of the second option of smaller projects being preferred, these should concentrate on topics to include:

- School based studies
- Mentoring
- Induction
- Continuous professional development
- Reflective practice

The development and maintenance of a knowledge base to support good strategic planning and practice in teacher education and related areas is an urgent requirement. Reliable models for projecting future needs, changing patterns of development, participation and provision should be put in place. The absence of such a facility makes it difficult to plan in a forward–looking sense.

Allied to this there is a need to initiate and maintain ongoing research into teacher education nationally and internationally. This has been a somewhat neglected area and one which is deserving of more concentrated attention. To maintain teacher education at a quality level a national centre for research in teacher education should be established and fully resourced. It should seek to form strategic alliances with other such centres elsewhere in the world. This national centre would serve to progress Ireland's strong reputation in teacher education and would attract the worthy participation of scholars of teacher education from other cultures.

It is clear that many teacher education departments are under resourced. There is an over dependence on part-time staff and particularly part-time supervisors of teaching practice. In some instances part-time staff out number full-time staff at a ratio of 3:1 or even higher. Teacher

education departments cannot continue to provide a quality service under these conditions. In a number of departments, teaching practice supervision and assessment is far too heavily dependent on part-time input, which can be difficult to co-ordinate and standardise. To allow the core of the programme's work to be under resourced in this way is unacceptable. Dedicated funding needs to be invested in the recruitment of staff in order to support teacher education more effectively. The greatest deficiencies are in the subject areas and recruitment must take account of the important need to have well qualified specialists appointed to these.

The recommendations for a mentoring system, if implemented, will provide for a good combination of expertise. Mentoring will require strong investment for both training purposes and ongoing support and mentors will need to be provided for by means of some material resource, with consequent implications for funding.

Teacher education departments are strongly committed to a wide range of endeavours and they offer a generous response to many teaching and schooling needs. In an attempt to face confidently into the future challenges, departments are encouraged to further develop a small number of research areas. It will not be possible to continue to offer all that will be required in every department. Specialisation would allow for a deepening of initiative in particular areas of teacher education and in research associated with those areas and improved co-ordination between teacher education departments will ensure that the findings of such research are shared. The research centre referred to earlier will provide a good forum for the dissemination and discussion of these findings. This policy is already evident in teacher education and the Advisory Group recommends that it continue to be enhanced. More complete resourcing will encourage a greater degree of discrimination between the activities that departments take on.

Improved resourcing will also be needed to put in place a strategy for the application of the latest developments in information technology and in order to improve capacity of the departments to provide for programmes at a distance, particularly in the area of continuous professional development. In this regard, the positions of the NCTE, the Education Centres, and programmes organised through the In-Career Development Unit should be strengthened to increase their contribution to this area.

Teacher education programmes are composite by nature and are dependent on a varied range of expertise. Current models of financing and resourcing of teacher education programmes are not always clearly designed to respond to needs. Accordingly, it is recommended that finance and resource models be re-designed and applied in a more needs-responsive manner.

Further means of support for teachers as they engage in continuous professional development should be achieved by an extension of taxation reform.

In the case of postgraduate teacher education programmes, fees should be remitted.

Student teachers should be paid for hours they are required to teach at the part-time rate.

The Advisory Group recognises that the Teaching Council with its progressive provisions will have strong and important implications for many of the recommendations and ambitions of this Report. Therefore it is recommended that the Council be made operative without delay.

Chapter 1
The Contexts of Teaching Surveyed

1.1   Introduction

The hastening pace of change, the almost instant rate at which change is transmitted, the knowledge explosion, the challenge to established perspectives and globalisation are characteristics which combine to mark the end of an era and simultaneously usher in new beginnings. Teaching, more than many professions, is challenged through encountering many of these major changes. Student teachers and those currently in the profession alike are, generally speaking, required to come to terms with such developments.

UNESCO'S International Commission on Education for the Twenty-first Century (1996) has argued that *'Each individual must be equipped to seize learning opportunities throughout life, both to broaden his or her knowledge, skills and attitudes, and to adapt to a changing, complex and interdependent world'.* The Commission has proposed 'four fundamental types of learning which throughout a person's life, will in a way be the pillars of knowledge'. These are an appropriate and comprehensive set of desirable learning outcomes. They are:

- **Learning to know** – acquiring a broad general knowledge, the instruments of understanding, and learning to learn
- **Learning to do** – the competence to deal with many situations and to act creatively on one's environment
- **Learning to live together** – developing understanding of others and appreciation of interdependence, to participate and co-operate with others
- **Learning to be** – developing greater autonomy, judgement and personal responsibility, through attention to all aspects of a person's potential.

Similarly the Royal Society of the Arts (1986) suggests five categories of competence that complement those of UNESCO, but are more specific. These are:

- Learning
- Citizenship
- Relating to people
- Managing situations
- Managing information

1.2   Society and School

The school is placed at the junction point of an intensive interaction between the past and the future. Traditionally, schools were a constant in society. Schools were the established institutions for the transmission of knowledge and of social and moral values. The school culture reflected a secure social order in which roles were clearly defined and authority clearly delineated. The role of the school was calculated in large measure to discharge its duties towards the scholastic and intellectual development of the pupil, inclusive of the moral and spiritual values. Schools could

portray a uniformity of culture, overlooking in many ways the underlying diversity evident in emerging patterns of thought, development, culture, social background, interest and inclinations.

In dramatic contrast to this correspondence between society and school, the present environment is in many ways undefined and transient. It will be generally agreed, however, that a number of distinctive characteristics of the changed environment are clearly evident. That which differentiates the traditionalist era from the post-traditionalist era is discernible in values-related change from a curriculum-centred to a pupil-centred emphasis, from passive learning to active learning, from directed learning to negotiated learning, from constraint to choice and from authoritarian models of management to participative and democratic models.

The challenge to teacher education and to teachers is acute. Teacher education and continuous professional development programmes have not kept pace with such change and have not allowed teachers and student teachers to come to terms, in many instances, with these changes.

1.3   Learning Opportunities Expanded

Significant developments have taken place in the curriculum over the recent period. Alternative programmes, responsive to the multiplicity of capabilities in pupils, have been introduced. In many instances, teachers have moved from their original basic scholastic qualifications to take on responsibility in new and developing areas of study. Explicitly and implicitly the subject knowledge and pedagogical acumen of the teacher are being called upon at different levels. Very often, this is achieved through experiential learning alone. Learning by association and the development of a conceptual awareness as well as a critical and analytical faculty replace the former concentration on memory and recall. The work of the teacher will often be permeated by uncertainty and feelings of vulnerability as pupils become increasingly autonomous in negotiating individual pathways to learning.

A further set of challenges to be encountered in this regard may be categorised as curricular and pedagogical. The band of learning opportunities continues to extend. Schools no longer occupy the monopoly position of a former era in the management and mediation of knowledge. Technological innovation provides for a multiplicity of learning encounters and educational potential, which can parallel, negate or complement the formal school endeavour.

Teachers are now confronted with a pupil cohort increasingly exposed to wide-ranging information and knowledge. Not infrequently pupils will fail to assimilate this content in a coherent and integrated way, much of it remaining unrelated and disconnected. Very often too, it is consumed unreflectively. Knowledge is sacrificed to information and understanding is sacrificed to knowledge. The heterogeneity of this environment, its positive and its negative features, combines to change significantly the context in which the teacher now operates and the context in which the schooling transaction takes place.

The implications of all this for the teacher include the need for the teacher to be amenable to this emergent culture, alternating roles between principal provider of knowledge to manager of knowledge. Consequently, there is a pressing need to culture a more inclusive learning environment, which can optimise the potential learning experience.

1.4   Pupil School Interaction

If the expectations of the teachers are now in transition there is also a change in pupils' expectations. Pupils are securing a greater degree of autonomy and legitimacy in the wider social setting of the family, and of the community. However, the rate of autonomy allowed in the school often conflicts with that allowed in the social setting, or vice-versa. To create a correspondence of understanding between the agencies is a goal that is not easily accomplished. In this respect an absence of shared principles may give rise to what is generally described as indiscipline. Pupils no longer have a fixed code against which they can measure their own behaviour, develop their sense of judgement or respond in accordance with established practice.

At the level of post-primary schooling, pupils are entering a most critical phase of their personal development. The transition from childhood to adolescence is marked by inner uncertainty and insecurity and coincides with impulses to establish individuality, emphasise one's own viewpoint, behave in accordance with the peer culture and challenge prevalent values. To mask this insecurity and uncertainty adolescents will resist traditional values, they will challenge authority, they will seek individuality, and they will be more influenced by the peer culture than by the family or school culture. This is a period of development in the life of the pupil which can be complex, demanding, threatening, and in many ways definitive.

The teaching role is now extended to include a capability to build an open, objective, understanding dialogue with this culture. Central to this is the establishment of means by which the multivariate energies and dynamic of the adolescent can be harnessed to fruitful effect. Success in this respect does not depend only on devising a new pedagogical approach: it depends more fundamentally on the capacity of the teacher to relate openly with the culture of adolescence, to extend the threshold of tolerance and to assist in subtle and implicit ways in the guidance and pastoral roles.

1.5   Diversity and Inclusivity

The capacity of the educational system to accommodate diversity will be a key factor for success. Forms of alienation and marginalisation such as absenteeism and dropout rates, arising from social and economic disadvantage, are obstacles which impede the fuller participation in, and the deriving of best advantage from, the educational system.

For the first time Ireland is witnessing net immigration, which provides society with an ethnic diversity never before experienced. Schools will be challenged to cater for these new populations.

Diverse education needs will be made manifest in other ways. Pupils who are challenged by physical and mental handicap - formerly accommodated in separate schools - will be catered for in one inclusive school.

Adherence to a commonly held value system is no longer the norm and sectors within the social system are developing away from the core. Greater diversity in culture and identity is an emerging feature of Irish society. Historically different aspects of national identity have been expressed. The linguistic diversity of those who speak Irish as a first language or those who

speak Irish and English interchangeably as a first language, must be provided for. The schooling provision seeks to represent these interests and must constitutionally provide for them as a right.

In a society which is committed to models of social inclusion and cohesion the school is a critical bonding compact. The development of an inclusive schooling framework, which has the capacity to engage and overcome these problems, will test the ingenuity of teachers and schools.

The designing of knowledge bases for teaching to diversity will become a core responsibility. These knowledge bases will need to be integrated to resist 'add on' tendencies or be merely representative. Extending beyond that an inclusive family and community network will be required to support the school commitment.

1.6   Patterns of Parenting

Patterns of parenting and parenting behaviours have changed radically. The position and role of parents have changed and the authority of parents has altered. The relationship between school and parents, once implicitly rooted in an unspoken alliance, is a model which no longer prevails. Very often the distance between a school's code of behaviour and that practised by a family can give rise to tension, perhaps even conflict. Expectations will very often reflect social and economic class differences as well.

Some parents will be unquestioningly supportive of the school, others will seek to establish a provider-client relationship and others still will feel disaffected and marginalised. Teachers and schools are compelled to face this dilemma with strategies designed to integrate all parents. They must provide for a more commonly shared understanding through more inclusive models of partnership and need to develop alternative means of reaching in dialogue as wide a community as possible.

1.7   School Management and Administrative Structures

Pervading the environment of the school there will be a culture composed of many layers. This culture will be in particular, the historical heritage of the school. The combination of the past and the present exist as attempts are being made to develop policies and strengthen endeavours in response to the future.

The teaching transaction in the classroom does not exist in isolation from the environment of the school. That environment will have its own management model, hierarchy, middle management and auxiliary structures. It will include such elements as a Board of Management, a Students' Council and Parents' Council. It is the responsibility of the teacher to practice and participate within this framework. Teachers are required to have the management and administrative literacies to support and exercise these structures with optimum effect. These are implicit duties which are sometimes explicitly manifested in a particularised brief and remit that is additional to the teaching role.

1.8   Balancing the Tensions

Understandably, much of the discussion on teaching and schooling will concentrate on contemporary issues. It is important to acknowledge, however, that society will continue to change and that education as an important sub-system, will be influenced accordingly.

There are however, immutable imperatives to which the teacher and the school are required to respond. These core components include the socio-political-economic environment, the prevalent ethical system, the intellectual capacities and aspirations, and the individual, emotional and psychological holistic development of the pupil.

As part of their professional responsibilities, teaching and schooling are also required to enable pupils to participate effectively in a market economy. On the part of some, this will mean achieving entry to higher education in an environment of competitive assessment and competitive access. Alternatively, it may involve pupils taking employment directly from schools or entering forms of vocational and professional training. Very often school effectiveness is measured in accordance with progression and economically related criteria. This calls for accountability and visibility concerning these issues and has, therefore, strong implications for teachers and schools.

It is clear that teachers are required to create an environment capable of balancing and managing many tensions: this is perhaps the core component of the profession. It includes amenability to change, sustained uncertainty and the ability to conserve while at the same time innovating. The interest of the pupil and the pupil's interests; the roles of assessor and advocate, instructional leader and instructional guide; being decisive versus keeping options open – all must be balanced. There is, moreover, that critical aspect of managing all of these components and their diverse requirements in the holistic development of the pupil.

In addition, there is the challenge that this process be managed in a collaborative fashion, inclusive of all the partners who combine to optimise the potential of pupils, teachers, schooling, and the educational system in general. There is a need to shape a composite model that includes all of the other agencies which are legislatively positioned to contribute towards a healthy citizenry and the development of society.

It is not possible to build a tight correspondence in a preparation programme that addresses a professional environment which is exceptionally transient. In that respect, there is a need to pay close attention to what may be described as the generic skills as well as the individual particular skills. It is an environment characterised by change, diversity and multiple learning opportunities for pupils and for teachers.

The multiplicity of roles demanded of the teacher is well encapsulated in the Report on the Establishment of the Teaching Council (Dept. of Education and Science, 1998) as

> "… skilled practitioner in the science and art of teaching, who applies professional knowledge, personal intuition, creativity, and improvisation to accomplish teaching's task; as problem solving and decision-making clinician; as curriculum maker, researcher evaluator and reflective practitioner; and finally as significant other person who exercises considerable moral influence."

Yet, for all of the challenges inherent in the profession of teaching it is a particularly rewarding career. It is significant in the manner in which the vocational and professional values are intertwined. Commitment to the enablement and the nobility of maximising potential in others sets teaching apart as a profession that requires generosity of spirit, open mindedness and concern for others. It is against this background that aspects of teacher education programmes need to be devised and developed.

Chapter 2
Teacher Education:
Current Issues and Recent Trends

2.1   Introduction

It is clear from the level of enquiry and the research literature that the debate on teacher education has intensified over recent years (Blake 1996, Byrne 1998, Coolahan 2000, Holmesland 2001, Lunenberg 2001). More generally speaking, the voice of enquiry within teacher education has strengthened and has sought to articulate and express in coherent ways the many issues and tensions which prevail within that debate. This diversity adds further to the challenge of defining best strategy towards the achievement of common objectives and towards the accomplishment of similar learning outcomes. Yet, it is this same diversity which provides for a potentially enriching landscape of scholarship over which a dynamic dialogue can take place.

There are of course cultural variations and in common with the other components of the education system, teacher education does not exist in isolation from society in general. Teacher education reflects the values and the ideologies of the societies, the cultures and the political entities of which it is a part.

In the Irish context, it is important that teacher education be viewed within the context of the current social and political culture of the country. It is important too that this vision is extended to include a broader international perspective. This will allow for comparisons and contrasts to be drawn and will facilitate entry into the wider mainstream of enquiry. This approach will ensure that teacher education in Ireland joins with its counterparts elsewhere in the search for effective models, for progressive processes and for that sense of leadership and vision which is so critically important to the quality of teacher education.

2.2   Conceptualising the Work of Teachers

The prevalent metaphor that is held for the work of teachers - in other words, the conceptualisation of teachers' work - has a major implication for the way student teachers are prepared for the tasks of teaching. There is considerable opinion among researchers which highlights the distinction between teaching as a 'science' and as a set of techniques on the one hand, and teaching as an 'art' on the other (Reynolds 1989). It is generally accepted that the indeterminate nature of teaching is rather more 'caught' than 'taught'. That imagery leads consequently to a notion of initial teacher education which lays stress on the careful selection of prospective candidates to teacher education programmes based on the premise that one is either 'born' with the flair, or not at all.

2.2.1   Teacher as Artist

Given the indeterminate nature of the teaching/learning enterprise, teacher educators who employ the ''teacher as artist'' metaphor will tend to eschew any formulaic approach to teaching

or methodologies. There are no prescriptive answers, and the greatest resource for the teacher is him/herself, rather than any pre-set technique or strategy. Opportunity for creativity, flexibility, experimentation and self-expressive forms of teaching and learning will be afforded in this context.

2.2.2   Teacher as Clinician

If the prevalent image is that of teacher as ''clinician'', then emphasis will be put on the skills and techniques developed by 'experts' - successful, experienced teachers. These will then be catalogued through case studies, or microteaching sequences in order to make them available to student teachers. Teacher education is seen as a training course in specific skills. Systematic attempts are made to identify and correct dysfunctional beliefs and habits in teaching and replace these with a body of scientifically valid techniques.

2.2.3   Teacher as Professional

The 'teacher-as-professional' metaphor has led to attempts on the part of teacher educators to ensure that the sought-after parity of status with traditional professions is guaranteed through the development of teacher education programmes. Such courses reflect the location, duration, structure, standards, and occasionally even rituals of those courses that prepare medical doctors, lawyers, and natural scientists. This approach is reflected in teacher education programmes which are firmly entrenched in what is referred to as the academic tradition.

2.2.4   Teacher as Researcher

Finally, the teacher-as-researcher metaphor leads to a very different kind of teacher education programme. It is one where teachers are considered to be 'intellectuals' who have the cerebral and moral commitment to critically reflect on their own everyday practice as part of a wider and intricate mesh of interactions between education and society. This approach presumes a curriculum that accords great importance to the foundation disciplines e.g. sociology, philosophy, history and economics of education, as well as policy studies. It promotes action research both as a method of assessment throughout the course, and as a life-long habit and practice for intending teachers. Moreover, teachers are encouraged to engage in the wider public sphere, and particularly in the major social movements that mould the political and professional issues of their community.

2.3   The Location of Teacher Education

2.3.1   Location within a University Structure

Several international reviews of teacher education programmes have identified the universitisation of teacher education as a significant trend over the past two decades (Bone 1990, Galton 1994, Sander 1994, Grundy 1995, Jones 2000). The incorporation of teacher education within the university structure connects, in many ways, with the promotion of the metaphor of 'teaching as a profession' by training together with the traditional professions and making the awarding of a degree a necessary prerequisite for joining the ranks of teachers. Subsequently, the teaching profession is perceived to be better poised to claim parity of status with other professionals. The experience of universitisation of teacher education has led to criticism from a number of different factions on both the progressive and the conservative ideological spectrum.

Some commentators argue that the institutional culture of the university, which tends to reward research and publications rather more than it does teaching, has led to a situation where teacher educators 'trade pedagogy for status' (Judge et. al. 1994). It may be said that the improvement in the quantity and quality of educational research carried out by faculty contributes directly and indirectly to the improvement of the teaching and learning enterprise more generally. The 'theoreticisation' and 'academicisation' of teacher education has opened itself to criticisms of alienation from a 'hands-on' engagement in schools. It is suggested that a shift towards 'academicisation' from the 'hands-on' experience in schools has led to a distraction from the formation of the affective, as against the merely cerebral dimensions of prospective teachers (Aldrich and Crook 1998, Blake 1996).

2.3.2   Location at a School Site

Critics inspired by a technocratic image of the teaching profession have argued that university-based teacher education tends to emphasise theory over practice (Aldrich and Crook 1998, Darling-Hammond 1999). They argue that it fails to get the relationship between the disciplines and their application in correct balance and that there is a tendency to be inordinately taken up with criticism rather than with helping students develop alternative forms of practice. Influenced by that model, teacher education has reduced the contribution of the foundation disciplines while upgrading competency based training. The location of teacher education has become increasingly school based and apprenticeship type approaches have been adopted. Some mentoring is also included. In this sense, while formally teacher education seems to be located in universities, staff and students are spending an increasingly large percentage of their time at school, with significant input being made by schoolteachers who act as models of good practice and tutors.

Courses which have been inspired by the developmentalist, personalistic tradition of teacher education have reacted against what they see as an excessive emphasis on academic components in the preparation of teachers. A contrast is often drawn with the 'seminaristic' tradition that prevailed in Colleges of Education where, generally speaking, the affective socialisation of teachers into the profession was given paramount importance, in the belief that personal qualities were at least as important as academic knowledge in the teaching-learning nexus. Some commentators argue that the interaction between prospective teachers with students from other faculties on the same campus provides qualitatively superior opportunities for informal personal development than did the model of socialisation offered by Colleges of Education (Michaelsson 1995, Judge 1991).

An intensification of pronouncements in favour of more time being spent on the part of both student teachers and faculty staff on the school site is now emerging as a trend (Miller and O'Shea 1996, Moon 1996, Townsend 1994). This is clearly a reaction to the perceived distance between the education offered in an institutional setting and the 'real needs' of schools. It is noted, however, that school based teacher education often leads to a preoccupation with 'what works' at the expense of a developmental approach. Learning through trial and error rather than as a result of careful thought and scholarship, coupled with the very real dangers of being exposed to an apprenticeship into mediocrity, are matters, it is argued, which need due consideration in the current context.

2.4   The Design and Structure of Teacher Education Programmes

There is considerable research opinion on the wide variety of programme structures internationally which concludes that there is simply not enough evidence to suggest there is any 'one best model' of teacher education (Coolahan 2000, Burkberger 1994, Ahl 2000, Grundy 1995). This applies both to the relationship between subject content, knowledge and methodology in the campus experience, and to the percentage of time allocated to the different elements that make up the programme. They can be categorised thus: (a) subject-matter studies, (b) foundations of education studies, (c) professional studies, including methodology and curriculum courses and courses based on knowledge generated through research on teaching, (d) school experience and teaching practice. The focus here is on the debate surrounding the advantages and disadvantages of having a concurrent or a consecutive type of teacher education programme for prospective second-level teachers.

2.4.1   Concurrent Model

Historical analysis suggests that the issue of the polemic mix - quantitatively and qualitatively speaking - between liberal and professional studies has been central to the development of the initial teacher education field from the mid-19th century (Aldrich and Crook 1998, Grossman 1990). There are two major permutations possible, the concurrent model and the consecutive model. The concurrent model combines the study of education in all its components with the study of the academic subject specialist area. It is perceived that the treatment of subject matter in a way that relates to pedagogical issues may yield more valid and useful knowledge for perspective teachers. It is not always valid to assume, however, that co-operation across the academic boundaries from subject specialism to pedagogy is achieved. The fact that subject matter studies and professional studies are taught concurrently does not automatically guarantee that the two areas are coalesced in any pedagogically fruitful manner, either in reality or in the mind of the student teacher.

2.4.2   Consecutive Model

The consecutive model, which is an incremental two-tier approach, is perceived as establishing the subject specialism and allowing for the building of an affinity with a particular area of scholarship. This academic platform is then built upon with a consecutive programme in the study of education and encourages single-mindedness of purpose within an institutional unit. However, the absence of a linkage across the incremental boundary from subject specialism to studies in education remains a problem.

Despite the fact that this debate has not found any epistemological consensus, it is worth noting that American-influenced reform thinking has led to an acceptance of the dominance of the consecutive model (Holmes Group 1995, Darling-Hammond 1999). The concept of a teacher preparation that is located in collaborative partnerships between faculties of education and faculties of arts and science is worthy of closer exploration.

The idea of all teacher education becoming a postgraduate enterprise is rapidly gaining momentum (Calderhead 1997, Darling-Hammond 1999). Masters' level courses building consecutively on substantive study of the subject specialisms at the undergraduate level are being adopted or recommended by many institutions internationally.

2.5   The Relationship Between Academic Subject Study and Pedagogy

The relationship between academic subject study and pedagogy is a defining factor in the management of the structures of teacher education programmes irrespective of which model is employed, the concurrent or the consecutive. It is an issue of major importance and relevance to post-primary teacher education: nevertheless, several of its different aspects are rarely properly considered. The research literature notes an almost complete absence internationally of research that examines the entering assumptions and pedagogical beliefs of the student teacher (Jong 1999, Kansane 1991). In addition - and in further complication - teacher educators delegate responsibility for the transmission of subject knowledge to subject departments in an incoherent and sometimes isolated way. This, it seems, is as much a feature of the concurrent structure as it is of the consecutive structure.

2.5.1   Academic Subject Specialism

There are several dimensions to the subject specialism which are particularly important to the task of teaching. There is a need to guarantee that student teachers of a particular subject or area have been exposed to the 'substantive structure' of a particular domain, i.e. that they are sufficiently aware of the paradigmatic reach or framework of that field. This does not mean that they have to know 'everything about' - or necessarily cover all topics related to the subject. However, the need to be aware of the breadth and depth of a subject is fundamental.

This also means that student teachers have to be well-versed in the 'syntactic structure' of their particular domain, i.e. they have to know about the methods through which knowledge in that area is produced. This is vital since the modern curriculum is characterised by open-endedness and innovation, and the teacher must be able to both research new knowledge as it is produced, and to be actively involved in its production.

There are very important pedagogic implications for the extent and depth of knowledge of subject matter on the part of teachers. Drawing on several studies in this area, researchers argue that lack of depth of knowledge of subject matter tends to lead a teacher to closely control the framing of a particular learning session (Wilson *et al.* 1987, Carter 1990, Grossman 1990). In such circumstances, it is suggested that in order to ensure that students do not lead him/her into areas with which s/he is neither familiar nor comfortable in handling, student teachers will avoid open-question techniques, for instance, opting for a tight lesson structure and teacher-led learning instead. This adds further to a conservative perception of teaching and can soon become an established feature in the convictions and repertoire of the student teacher and indeed consequentially of the beginning teacher.

It is necessary to be aware that the curriculum offered by subject specialists to student teachers is not necessarily what the latter need. This is not to say that the subject-matter curriculum should reflect the curriculum of the schools in which student teachers will teach. Rather, it is a point made in connection to the requirements of coverage and mastery of both the substantive and syntactic structures.

2.5.2   Academic Subject and Pedagogy

It is important to highlight an early Deweyian insight that while what a teacher needs to know about a subject often overlaps with the knowledge of scholars of that discipline, teachers

nevertheless need also to understand their subject matter in ways that promote learning. Not only do teachers need to have a firm grasp of the substance and syntax of their subject(s) - they are also required to have knowledge of learners and learning, of curriculum and context, of aims and objectives, and of pedagogy. In particular, they need to have pedagogical content knowledge that may be described as the teacher's curricular vision.

2.6 School Based Experience

It is widely accepted that various forms of school experience and field placements constitute the main elements in the preparation of becoming a teacher (Lyons 1998, Merseth 1996, Moon 1996). Their value in preparing teachers cannot be overstated. That centrality comes through in many ways, among them being the proportion of curriculum time dedicated to field experience. It is generally found that student teachers value teaching practice above any other aspect of their course (Zeichner *et al.* 1996, Zabalzara 1996). This position is grounded in the belief that teaching is learnt from experience.

There is an international trend towards increasing the time devoted to teaching placements both in terms of direct field placements and school-based teacher education and also in linking other aspects of the teacher education programme - including foundation studies - to the practical concerns of classroom life (Townsend 1994, Adams *et al.* 1997). In this way, the practice can be brought to the theory.

2.6.1 Limitations of School Based Experience

Despite the general assumption that field experiences are a positive component, research is beginning to reveal some unexpected negative aspects from this curricular emphasis on placements in schools and in classrooms (Darling-Hammond 1999).

It tends to foster a 'group management' orientation, as opposed to an 'intellectual leader' orientation in student teachers' thinking about their work, at the expense of a concern for pupil learning. This can often be a case of teaching the lesson and not the pupil.

Student teachers tend to adopt a view that the way to learn more about teaching is through trial and error, not careful thought and scholarship. This situation tends to lend itself to a strategy and nurture a process, which when adopted, are focused on procedures programmed towards giving expected results.

Survival is uppermost on the minds of most student teachers in their school placements. There is very little engagement with the theoretical principles necessary to understand such social and ethical issues in teaching as how children learn, how curriculum decisions might be guided, and how pupils' thought processes might influence teaching methods.

Interaction with experienced teachers, while potentially fruitful, tends to lead student teachers to become conservative in their approach to the complex challenge of teaching. Instead of responsibility and reflection, acquiescence and conformity to school conventions and routines become the norm.

2.6.2   Advantages of School Based Experience

In contrast, the goals for school based practical experiences expressed by many teacher education institutions include increased awareness of students' knowledge and beliefs about pupils and classrooms. Included too is the focus shift from self to instructional issues and to pupil learning. The development of standardised routines for management and instruction and problem-solving skills that are multi-dimensional and context-specific is also strongly emphasised.

The value of school placements, therefore, is defined by a number of factors, e.g. the kind of preparation provided to students before they are sent to the schools; the kind of supervision and feedback provided throughout the school experience; and the kind of teacher mentors. The quality of theoretically informed reflection that students engage in as they go about their work in schools and classrooms is perhaps the core issue.

Over the past decade and a half, developments in thinking and innovations in this area have attempted to address the various aspects that can make a positive difference to the way school placements impact on the formation of teachers and to improve the dynamic of the link between theory and practice (Zeichner *et al.* 1996, Lunenberg *et al.* 2001).

2.6.3   Mentoring in Schools

The increasing use of school-based mentors as a way to value the craft knowledge of experienced teachers in the formation of undergraduate teachers is an emerging pattern (Caruso 1998, Feiman-Nemser 1998, Fraser 1998). Mentoring has evolved and matured into a collaborative effort on the part of faculty and schools to create a supportive environment for student teachers. Joint ventures of this nature lend themselves to the development of a community and a dialogue in which shared inquiry and learning are created, based on school observations and experiences. Consequently, theory is informed and practice is improved in the process. Many opportunities for professional development on the part of the school and the established teaching team are also stimulated.

2.6.4   Professional Development Schools

There has been a concomitant rise of Professional Development Schools, particularly in America. These are seen to serve as a field placement site for student teachers, to promote the professional development of experienced teachers, and to advance the knowledge base of teaching and learning by supporting reflection, inquiry and research. There are mixed views in terms of the ability of Professional Development Schools to deliver in all these areas, especially to change the personality of an occupation and the character of two well-established institutions (National Commission on Teaching and America's Future 1996, Levine and Trachtman 1997, Darling–Hammond and McLaughlin 1996). Nevertheless, despite the magnitude of the tasks they are attempting to fulfil they seem to provide an increasingly attractive way of responding to what might be considered contrasting demands made by institutions on the one hand, and schools on the other.

The link between theory and practice is articulated in an increasingly sophisticated and organic manner in the Professional Development Schools. This is achieved through the keeping of reflective journals, the building up of portfolios and the carrying out of action research whereby student teachers are encouraged and taught how to keep accounts of, as well as how to investigate critical incidents and dilemmas which they encounter during their school placement.

This fosters the development of the qualities required by the 'reflective practitioner' whereby strategies and techniques are evolved to deal with the complex, uncertain, unstable and unique situations of the teaching practice engagement.

The development of the notion of teacher collegiality, and the idea of evolving professionalism through participation in active learning communities of teachers can also be facilitated. This can be achieved through inter-community conferencing, which involves collaboration between university tutors, school-based mentors/co-operating teachers and student teachers in collegial settings, which set high standards. This system lends itself to providing a dynamic interchange, which draws on the strengths and wisdom of all the partners in addressing pedagogical and curricular issues.

2.7   The Effectiveness of Teacher Education

The effectiveness of teacher education is an obvious object of scrutiny. There are now strong indicators attesting to the fact that, for a number of reasons, student teachers learn much more from their "apprenticeship observation" or the cumulative experience of the school environment than from what is taught during the teacher education programme (Townsend 1994, Darling-Hammond 1999). It is sometimes suggested that student teachers do not always develop new perspectives but in fact become more skilled and more articulate at defending the perspectives they already possess (Murray-Harvey *et al.* 2000). Prior beliefs or received assumptions tend to screen out programme experiences, which are deemed incompatible with the 'acquired' insights of the student teacher (Jong and Brinkman 1999).

2.7.1   Student Teachers' Prior Beliefs and Assumptions

The suite of beliefs and attitudes brought to teacher education by the typical student teacher is characterised by a number of negative features. There may be an unreflective and shallow perception that there is little to learn about teaching. Sometimes it is believed that what there is to learn is best learnt through experience.

Perhaps most commonly there is the mistaken notion that a strong teaching personality and an assertive energy are what matter most as opposed to refined cognitive skills, pedagogical acumen, or the mastery of subject matter knowledge. Accordingly, it is clear that student teachers need support in order to build a personal holistic learning environment and to enter the conversation of education and teaching.

The principal challenge arises from the student teachers' negative perception of the multiple-course component of the teacher education programme. Programme design is at issue here and so is programme scheduling. Other difficulties are caused where student teachers are not afforded the opportunity to negotiate their own learning and to interact in a dynamic way with the knowledge bases through discovery learning and enquiry. It seems that the key feature of integration in this learning landscape has proved elusive in teacher education programmes. Elusive too is a framework which might contribute to the development of a coherent and inter-related vision of the teacher education curriculum. This framework might be negotiated in part with the student teacher in an attempt to offer insights into the problems of teacher education, teaching and learning.

Student teachers' beliefs and attitudes before embarking on teacher education and a teaching career are of crucial relevance in developing effective strategies in learning to teach. Indeed certain researchers have identified a shift in the learning-to-teach literature that occurred in the mid-1980s (Mayer-Smith *et al.* 1994, Richardson 1999, Wubbles 1992). What student teachers know and how that knowledge was developed is now a key aspect in the resolution of mistaken assumptions. Some have made a case for restructuring teacher education curricula in such a way as to challenge prior beliefs: others, perhaps more logically given the evidence of the enduring quality of such beliefs, have suggested that an alternative to changing beliefs is to build on those that already exist (Bullough 1995, Jong and Brinkman 1999). In this sense, teacher education programmes, both pre-service and in-service, would strive towards the construction of teaching from the perspectives of teachers themselves through the exploration of the 'professional craft knowledge'.

Teacher education may be the object of unrealistic expectations. It is not fully realised that there are no prescriptive formulas to teaching, comfortable though it might be to have what is referred to as a 'technology of teaching'. General principles never fully apply to new and special situations, especially if those principles are thought of as prescriptions or rules. It is readily accepted that classroom situations are always new and never alike.

Student teachers must be encouraged to resolve their entering assumptions on all fronts and to set about the task of analysing teaching with growing objectivity, while at the same time recognising the historical, social and political context of which schooling and teaching are a part.

2.8   Initial Teacher Education Programmes: Pathways Forward

The fact and the responsibility remain that education has to be responsive to new societal realities, trends and needs. Furthermore, education may well have to be proactive in straddling the occasionally contradictory roles of both reproducing and producing society. In this context, there are some notable relevant elements to be considered.

The open-ended quality of knowledge in an information society is an issue of fundamental importance. Implications for teacher education include the need for focused curricular efforts to socialise prospective teachers into the habit of lifelong learning, where continuous professional development goes on from the stages of novice and beginning teacher throughout one's teaching career.

2.8.1   Research Based Study Skills

There is a need for teachers to have skills in research, i.e. that they not only know how to find and manage knowledge, but also how to critically appraise it and ultimately how to produce it. The implication is that teacher education programmes should have a research component which is formally integrated into the curriculum through the kinds of course assignments and projects given, through action research during field placements, and/or through the dissertation requirement. This is particularly critical given 'new' notions of professionalism and the changing understanding of what it means to learn. Knowledge is created and made meaningful through the context and activities by which it is acquired. Therefore, prospective and experienced teachers must be given the intellectual skills to reason about their work in the process of doing it, to articulate their own 'personal' theories and to participate in whole-school development.

2.8.2 Diversity: Teachers and Teaching

In dealing with diversity the challenge lies in preparing an increasingly homogeneous population of emerging teachers to teach an increasingly heterogeneous population of students. The increasingly dominant idea is that all students are capable of learning, and that what is required is for teachers to adapt their teaching style (Beyer and Liston 1996, Borko and Putman 1996). Such accommodation requires the teacher to match to the type (not 'amount') of intelligence and learning style of their students. This may vary according to a style, which may differ not only on the basis of psychological ascriptions (e.g. 'holistic', 'imagers', 'verbalisers'), but social norms as well (e.g. the impact of one's social background, gender, ethnic affiliation on ways of conceptualising / learning / engaging with knowledge). For many education systems, this is nothing short of a paradigmatic shift in the way the learning enterprise is conceptualised, and, by implication, the way prospective teachers are prepared to teach. Linked to this is another aspect of dealing with diversity, namely the increasingly accepted idea of inclusion. In several national contexts, the movement towards the inclusion of learners with disabilities in so-called 'mainstream' schooling has been pursued successfully (Mittler and Daunt 1995).

2.8.3 Role of Information and Communication Technologies

Many forecasting exercises about the presumed 'future' of teacher education refer to the impact of information technology on the preparation of prospective teachers. Information Technology signals a 'new paradigm' for teacher development, with interactive forms of technology having a 'crucial, perhaps major, role to play' in the education process (Leach and Moon 1999, Scrimshaw 1997). Certainly there is consensus that teacher education graduates should be computer literate and aware of the impact - both positive and negative - that technology can have on the learning process, not least in terms of the organisation of the enterprise to include different 'types' of learners (Bigum 1997, Carini 1986, Fulton 1993). There is impressive congruence among the main contemporary psychological perspectives on learning, namely that good learning is a process of socially based, active co-construction of contextualised knowledge. It has been argued that the new learning environment will require a major culture shift. A conceptual shift from teacher-led instruction to an interactive community of learners can be anticipated (Tarozzi and Bertolini 2000, Pelton 1991). A highly structured curriculum may well be replaced by an emerging open curriculum. Knowledge accumulation will be complimented by knowledge management techniques. New possibilities will emerge for discovery learning and enquiry based learning, problem solving, reflection, critical awareness and evidence based learning. With technology properly infused into the learning environment, the prospects for education, schooling, teachers and pupils will become radicalised in a way that few could predict heretofore (Sandholtz *et al.* 1997, Schofield 1995).

2.9 Conclusion

The uncertainty of any predications relative to developments into the future has many consequences. Teacher education must seek to attract those students who are prepared to participate in a rapidly changing environment where the tasks vary and the diversity of demands increases. The intellect, attitude and temperament of the prospective teacher must be amenable to that kind of challenge . Teacher education must foster these attributes by reflecting them in the conduct and culture of the programmes it offers. The teacher as a key change agent, flexible and amenable to meet the ongoing diversifying demands of schooling and society is a core component in the overall teacher profile.

Chapter 3
Teacher Education in Context: Recent Change and Policy Reform

3.1   Historical Overview

The formal professional training of post-primary teachers in Ireland dates from the beginning of the twentieth century. The recognition of education as an academic subject and the establishment of university education departments led to the introduction of postgraduate university diplomas in education for post primary teachers. A Diploma in the theory, history and practice of education was first introduced in Trinity College, Dublin in 1898 and the Royal University of Ireland offered a Diploma in education from the same year. The establishment of university chairs of education, in Trinity College in 1905 and in the colleges of the National University of Ireland (NUI) from 1909, led to the development of the one year postgraduate Higher Diploma in Education which became the standard qualification for graduate post primary teachers. The Diploma courses were based on the theoretical foundations of education, namely philosophy, psychology, history and sociology of education, plus a study of teaching methods and classroom management. Students undertook supervised teaching practice throughout the year in a recognised post primary school and the Higher Diploma lectures were held in the late afternoons after school hours. It was not until the late 1960s that Higher Diploma lectures began to be held from 2pm thus providing students with a full-time university course.

In 1914 the Secondary Teachers' Registration Council was established by the government to register and regulate the qualifications of secondary teachers and in 1918 the Higher Diploma in Education was linked to these regulations.

After 1922 the Higher Diploma in Education became a compulsory requirement for registration of secondary teachers and through the 1930s to the 1960s the Higher Diploma courses were attended by large numbers of graduate students, particularly in the NUI colleges. The rapid expansion of the second-level system in the 1960s resulted in the marked development of the university education departments which faced the challenge of educating a larger and more dynamic teaching force by providing both initial and in-service courses, including some at masters level. The Commission on Higher Education (1967) advised that education should be regarded as an essential subject of university study and that the education departments should be appropriately staffed and financed. In 1970 the Higher Education Authority's Report on Teacher Education emphasised the need to expand and develop the teaching and research facilities of the university education departments and recommended the establishment of a teachers' professional council as a co-ordinating and planning body. However, when a Planning Committee on the Establishment of a Chomhairle Mhuinteoreachta reported in 1974, no further action was taken. The growth in the number of second-level schools in the 1960s and 1970s, particularly of community and comprehensive schools, resulted in a much-expanded trained teaching force and the quality of entrants to the profession remained high. Marked improvements in the pay and conditions of second-level teachers were achieved in the 1970s and 1980s by the teachers' unions: the Association of Secondary Teachers of Ireland and the Teachers' Union of Ireland.

The consecutive model of teacher education, that of primary academic subject degree followed by one year professional diploma has been the traditional route for post-primary teachers in Ireland. However in the 1970s and 1980s a number of courses using the concurrent model, that of a four year joint academic subject and education degree, were established, particularly in subject areas which heretofore had not had graduate status. In 1970 The National College of Physical Education, Limerick was established as a college of physical education to educate physical education teachers for second level, and in 1979 the college was re-established as Thomond College of Education to provide, in addition to PE, concurrent degrees in Wood and Construction Studies, Metal and Engineering Studies, General and Rural Science and a Graduate Diploma in Business Studies. In 1991 Thomond College of Education was merged with the University of Limerick where the university's College of Education now provides, in addition to these degrees, a concurrent degree for science teachers and a postgraduate diploma in music. In the 1980s St Angela's College, Sligo and St Catherine's College of Home Economics, Sion Hill both developed concurrent B.Ed. degrees for teachers of home economics, while in 1986 Trinity College, Dublin introduced a concurrent Bachelor in Music Education degree for second-level music teachers, provided in association with the Royal Irish Academy of Music and the DIT Conservatory of Music. The National College of Art and Design similarly introduced a concurrent four year B.Ed. degree for secondary art teachers in addition to the already established postgraduate diploma in art and design teaching. The Crawford College of Art and Design, Cork and the School of Art and Design, Limerick Institute of Technology offer a one year postgraduate Diploma for Art and Design teachers. The Mater Dei Institute of Education, founded in 1966, developed a four-year degree course for second-level teachers of religion. In 1999 Dublin City University introduced a BSc degree in Science Education for second-level science teachers.

A network of Teachers' Centres was set up in 1972 to provide teacher support and in-service courses and the Report on In-service Education (1984) stressed the need for lifelong learning for teachers and emphasised the importance of a continuum of initial, induction and in-service provision. The OECD Review on National Policies for Education (1991) praised the quality and commitment of the teacher education programmes in Ireland and recognised the need to build on the sound structure of teacher education which already existed. In the same year the government considered a possible closure of three out of five of the university education departments as part of a rationalisation policy, but this proposal was dropped. A Committee on Teacher Supply was set up by the HEA and in 1992 a national quota for the supply of Higher Diploma students was introduced. This was agreed at 800 Higher Diploma students per year but in 1998 the quota was raised by 100 at the direction of the Minister for Education. In 1998, the Higher Diploma in Education (NUI) Applications Centre was established to process the applications and selection for the Higher Diploma courses in the four constituent NUI colleges.

The 1990's saw the major education policies encapsulated in the Green Paper *Education for a Changing World* (1992), the Report of the National Education Convention (1993), and the White Paper *Charting Our Education Future* (1995). All these reports stressed the vital importance of teacher education and endorsed the framework of 3 I's - Initial, Induction and In-service - as crucial and linked stages of teacher development. The Report on the Establishment of a Teaching Council (1998) recommended the setting up of a Council which would act as a national professional regulating and registering body for both primary and second-level teachers, and the Teaching Council Act was passed in 2001.

3.2   Current Provision

Based on 1998 submissions, there are currently seven university education departments which provide second-level initial teacher education programmes, along with two specialist colleges of home economics, three colleges of art and design, and one college for teachers of religious education.

3.2.1   Education Department, National University of Ireland, Cork

Founded with a chair of education in 1910, the Department of Education offers eight taught programmes, one at undergraduate level (BA in Early Childhood Studies) and seven at postgraduate level including MEd, Higher Diploma in Education, Higher Diploma in Guidance and Counselling, Higher Diploma in Educational Administration, Higher Diploma in Teaching of Religious Education, Higher Diploma in Compensatory and Remedial Education, Higher Diploma in Curriculum Studies (CSPE), and a Diploma in Art and Design (Crawford College). The higher degrees by research include MEd, M.Phil and PhD. There is a full-time staff of 11 with 25 part-time and 539 students. The quota for the Higher Diploma is 220 places. New courses which are proposed include MA in Religious Studies/ Theology, Higher Diploma in Drama Studies, MEd (Science), Higher Diploma in Curriculum Studies (Early Years Education) and MA (Educational Psychology).

3.2.2   Education Department, National University of Ireland, Dublin

The Education Department was founded in 1909 and became one of the largest in the state. It offers a range of taught postgraduate courses including Higher Diploma in Education, Higher Diploma in Educational Studies and Higher Diploma in Remedial and Special Education, MA in Educational Psychology, MA/MEd in Education, Diploma for Teachers of the Deaf, and Certificates in Teaching English as a Foreign Language and Adults Teaching and Adults Learning. Degrees by research are MLitt and PhD. There is a fulltime staff of 13, part-time staff of 59, an additional part-time supervisory staff of 46, 1 full-time and 1 part-time secretaries. The Higher Diploma quota is 200 places and in 1998/9 there were 1,390 applicants. Since 1999/2000 selection has been via the Higher Diploma Applications NUI Centre.

3.2.3   Education Department, National University of Ireland, Galway

Founded with a chair of education in 1914, the Education Department offers postgraduate courses including Higher Diploma in Education, Higher Diploma in Remedial Education, Ard Dioploma san Oideachas and Certificate in Teaching English as a Foreign Language. Higher degrees by research are MA, PhD and MEd. There is a full-time staff of 13 with 14 part-time assistants and 20 teaching practice supervisors and tutors. The Higher Diploma quota is 220. There are two centres established within the department - Educational Technology Centre (1974) and Science Teaching Centre (1973).

3.2.4   Education Department, National University of Ireland, Maynooth

The Education Department was founded in 1926 when the first Higher Diploma in Education course was offered. In 1966 the chair of education was established and the Higher Diploma in Education course was opened to male and female lay students as well as religious orders and diocesan clergy. From 1979 the Higher Diploma course became a full-time course. Postgraduate programmes offered by the department include Higher Diploma in Education, Higher Diploma

in Education Management, Higher Diploma in School Guidance and Counselling, Higher Diploma in Civil, Social and Political Education, Higher Diploma in Applications of Information and Communication Technology to Education (Maynooth and Kilkenny Education Centre), Masters in Education (part-time), Masters in School Leadership. There are 2 degrees by research - MA in Education and PhD in Education. In 1998 the department launched a development research programme in association with the University of Ulster in the area of the utilisation of ICT in schools. There are nine full-time staff (1 extra pending), 15 part-time staff (Higher Dip methodology), 7 part-time supervisors (Teaching Practice), and 25 other part-time staff providing inputs into courses. Applications for Higher Diploma places 1998-99 were 1,300 and the quota is 170 places. From 1999-2000 selection was processed via the Higher Diploma NUI Applications Centre.

3.2.5 School of Education, Education Department, Trinity College, Dublin, Dublin University

Lectures in education were offered from 1898 and the chair of education, the first in the country, was founded in 1905. The Education Department offers three concurrent undergraduate courses - Bachelor in Education (Primary) (in association with three colleges of education: St Mary's, Marino, Froebel College, Sion Hill and Church of Ireland College of Education); for second-level teachers a Bachelor in Education (Home Economics) (in association with St Catherine's College, Sion Hill) and Bachelor in Music Education (in association with the Royal Academy of Music and the Dublin Institute of Technology Conservatory of Music). Postgraduate courses include Higher Diploma in Education, Higher Diploma in Education (Primary) in association with two of the colleges of education), a full-time Masters in Education, and four part-time masters, MSc in Educational Management, MSc in Science Education, Master of Studies and MSc in Information Technology and Education (jointly with the Department of Computer Science). Higher degrees by research are MLitt and PhD.

There are 14 full-time members of staff and 30 part-time staff, 3 full-time secretaries and 3 part-time secretaries. The Higher Diploma quota is 130 places and in 1998/99 there were 927 applications. For the Bachelor in Education (Home Economics) the quota is 25 places per year, and for the Bachelor in Music Education, 10 places per year. There are two centres in the School of Education, namely the Anti-Bullying Centre (1996) and the Centre for Research in Information Technology in Education (1999).

3.2.6 University of Limerick, College of Education

The College of Education at the University of Limerick consists of two departments: the Department of Primary Education which is located on the Mary Immaculate College Campus, and the Department of Education and Professional Studies located on the Plassey Campus.

The undergraduate four year concurrent programmes offered by the Department of Education and Professional Studies include BSc (Physical Education) (40 students per year), B.Tech (Ed) Materials and Construction Technology (40 students per year), B.Tech (Ed) Materials and Engineering Technology (40 students per year), BSc in Biological Sciences with Physics or Chemistry (50 students per year) and BSc (Ed) in Physics and Chemistry) (30 students per year). A Diploma in Vocational Education and Training is offered to meet the needs of teachers/trainers working with disadvantaged young people and adults.

Postgraduate courses include a one-year Graduate Diploma in Education (Business) (30 students), Graduate Diploma in Education (Music) (20 students), Graduate Diploma/Masters in Educational Management, Graduate Diploma/Masters in Guidance Counselling, Graduate Diploma/Masters in Health Education/Promotion, Graduate Diploma/Masters in Information and Communication Technology in Education. The number of postgraduate education students was 250 in 1988/99.

There are currently 12 full-time members of staff and 2 contract staff. Support staff include a technician, an attendant and a secretary and a number of part-time staff who serve as pedagogy tutors and teaching practice staff.

3.2.7   St Angela's College, Sligo

Founded in 1950 as a College of Home Economics, St Angela's became a recognised college of the National University of Ireland in 1978. There are 255 full-time registered students of whom 100 are attending the four-year concurrent B.Ed programme for second level teachers. Full-time degree programmes offered include Bachelor in Education (Home Economics and Biology), Bachelor in Education (Home Economics and Religious Education), Bachelor of Arts Economic and Social Studies and Diplomas in Nursing and Nursing (Mental Handicap). Part-time courses offered in co-operation with NUI Galway and other educational and non-educational agencies include MA Education, MA Religious Education, MA Education and Training, MA Education Management, BA Humanities by Distance Learning as well as Diplomas in Catechetics, Psychology of Counselling, Archaeology, Social Care and a Graduate Diploma in Remedial Education. There are 12 full-time academic staff and 8 part-time staff. Support staff for the B.Ed. programme are 13 full-time and 3 part-time staff. Student intake is capped by the Department of Education and Science at 25 B.Ed students per year and in 1999 there were 180 first preference applications through the CAO. It has been indicated that while there are sufficient training places to meet demand from second-level schools, this does not take cognisance of other areas demanding the skills of Home Economics teachers, such as Special Education, Youthreach, Post-leaving Courses etc.

3.2.8   St Catherine's College of Home Economics, Sion Hill

Founded in 1910 as a Higher School of Domestic Science, St Catherine's College became a recognised teacher training college in 1929 and the Diploma in Domestic Science was replaced in 1967 by a Diploma in Home Economics. In 1997/98 St Catherine's became an Associate College of Trinity College, Dublin and a general degree in Home Economics was introduced. The four-year concurrent Honours Bachelor in Education (Home Economics) commenced in 1980. The programme includes, in addition to courses in Home Economics and Education, a four-year elective course in either Religious Studies or Economics and Consumer Studies or Gaeilge. The B.Ed. degree therefore qualifies students to teach two subjects at second level. The student intake is determined by the Department of Education and Science and is currently 25 per year. There are 12 full-time members of staff, 2 part-time, and three adjunct staff. Support staff include an audio-visual technician and an education secretary. The College also co-operates with the Division of In-service Education, Trinity College, Dublin in a programme leading to the award of an In-service Diploma in Curriculum Studies and a Masters of Studies.

3.2.9 Mater Dei Institute of Education, Dublin

The Mater Dei Institute was founded in 1966 by the Roman Catholic archdiocese of Dublin to ensure a supply of professionally qualified teachers of religion for second-level schools. In 1978

the Institute was affiliated to the Pontifical University of Maynooth and in 1999 the Institute became a college of Dublin City University. There is a four-year concurrent Bachelor of Religious Science programme which includes religion and an arts subject (English or History or Music). There are 70 student places available each year and from 1999 there are three additional Access (disadvantaged areas) places. The number of applicants through the CAO in 1998 was 1,307 and in 1998/99 there were 233 students on roll. Postgraduate courses offered include a Masters of Religious Science Degree, Graduate Diploma in Religious Studies (Chaplaincy Studies), Graduate Diploma in Religious Studies (Theological Studies). There are 20 full-time academic staff, 5 part-time staff and 26 occasional staff plus support staff.

3.2.10 National College of Art and Design, Faculty of Education

The NCAD Faculty of Education offers both concurrent and consecutive teacher education. The Bachelor in Art and Design is a four-year consecutive programme which qualifies art teachers for second-level schools. It includes Art, Craft and Design Studies, Education Studies, Teaching Practice and History and Appreciation of Art and Design. The postgraduate diploma for Art and Design Teachers is a one-year concurrent programme, open to graduates of art and design disciplines holding a recognised diploma or degree. It includes Art, Craft and Design Studies, Education Studies and Teaching Practice.

In 1999 the NCAD became a recognised college of the National University of Ireland and this one-year programme is now offered as a Higher Diploma in Art and Design Education of the National University of Ireland. There is a full-time staff of 6 and 25 part-time staff.

3.2.11 Limerick Institute of Technology, School of Art and Design

The School of Art and Design, Limerick, offers a one-year full-time National Diploma for Art and Design Teachers validated by the NCEA. The course is designed to prepare graduates from a broad range of specialist areas of experience in art and design for teaching in second-level schools. There are three main components to the course, namely School Based Studies, Education Studies and Curriculum Studies. The student intake was 27 for the year 1998/99, selected from 136 applications. There are 2 full-time members of staff, several part-time staff members and 1 technical assistant. A postgraduate research degree (M.Phil) is available.

3.2.12 Crawford School of Art and Design, Cork

The School of Art and Design, Cork, offers a one-year full-time National Diploma for Art and Design Teachers in association with the Education Department, National University of Ireland, Cork.

3.2.13 Dublin City University, School of Education Studies

In 1999-2000 the School of Education Studies introduced a four-year concurrent Bachelor of Science degree for second-level science teachers. The BSc in Science Education is organised conjointly with the School of Chemical Sciences and the School of Physical Sciences. The course is designed to provide a broad foundation in science with specialisation in either Physics or Chemistry and additional modules in Mathematics and Information Technology. The Education components, including school-based studies, are spread across the four years. The first year intake was 28 students and in 2000/01 the intake was 24 students. The School of Education Studies has 5 full-time and 15 part-time staff. A Graduate Diploma in Education and Training Management is also offered as well as a Certificate in Education and Training (part-time) for staff working in non-formal further education.

3.3   Policy Reform

The most notable of recent reforms concerns the introduction of free second-level education in the late 1960s, following the publication of the landmark *Investment in Education* report (Dept.of Education, 1965). The rapid expansion in enrolments which followed and the consequent increase in numbers in teacher education had significant implications for the teacher education institutions both in the short term (rapid increase in staffing and capacity) and in the medium term (subsequent fall in demand for new teachers). Even now, more than 30 years later, this major reform has implications for the teaching profession, which is increasingly becoming a "greying profession". This in turn has an impact on promotion outlets, mobility within the profession, and morale, as well as medium-term implications for the teacher education institutions.

3.3.1   White Paper (1980)

The White Paper on *Educational Development*, published in 1980, acknowledges the need for the educational system to prepare *"the young for life in a society characterised by ever-accelerating change"* and that the system itself would have to *"undergo a continuous process of adaptation and development"*. (pp:iii). In relation to teacher education it notes that *"The curricular directions for the eighties provide a serious challenge, one which must be reflected in policies for the pre-service and in-service training of second level teachers… and in a more professional role for the individual teacher"* (pp:52).

3.3.2   OECD Review (1991)

The OECD's 1991 review of Ireland's national policy for education, which was itself preceded by an extensive background report from the Department of Education, was instrumental in bringing teacher education into clearer focus. The OECD review centred in particular on the twin issues of teacher supply and training. The changing role of the school curricular and other associated reforms are highlighted.

The growing emphasis on linking education and employment is also emphasised by the review. It notes that this is part of an international trend and that responsibility for linkages lie with the teacher.

In addition the growth in parent power and the implications of this growth for teacher education in terms of the challenges posed by increased parent-teacher interaction are emphasised.

3.3.3   Green Paper (1992), National Educational Convention (1993), White Paper (1995)

The pace of educational reforms accelerated further throughout the 1990s. In co-operation with the education partners, substantial efforts have been made by successive Ministers and by the Department of Education to map out policy formulation in a structured way. The publication in 1995 of the White Paper *Charting Our Education Future* marked the culmination of an extensive process of consultation and debate concerning the future directions of the education system. The process began with the Green Paper (1992) followed by the National Education Convention (1993). The White Paper sought to describe *"a comprehensive agenda for change and development [and outline] policy directions and targets for future development"* (pp:ix).

Each of these documents devotes a chapter to teacher education and the teaching profession. A common thread however, which runs through all three documents, and indeed which is highlighted in the OECD review, is the concept of teacher education as a continuum. This continuum spans initial education, induction and in-service education.

Having noted that *"Some disquiet has been expressed about the adequacy of the Higher Diploma [in Education] in preparing students for a career in teaching"* (pp:124), the White Paper proposed a systematic review of pre-service education for second-level teachers. With minor amendments, the features identified by the White Paper as necessary for the professional preparation of second-level teachers, are incorporated into the terms of reference for this present review.

3.3.4   Education Act (1998)

Statutory recognition of some of the concepts referred to earlier is given in the Education Act, 1998. Section 22, which sets out the functions of the Principal and teachers states that they shall contribute to the education and personal development of students. Specific additional functions include evaluating students and reporting of results to the students and their parents, and promoting co-operation between the school and the community which it serves. These functions, all of which are already carried out in schools, highlight the need for pre-service education to provide teachers with a range of abilities which goes beyond the traditionally perceived role.

The key contribution of the school principal in teacher education is highlighted by elements of section 23. A principal's role includes guidance and direction of, and providing leadership to teachers. In partnership with the Board, parents and teachers, the principal is responsible for creating a school environment which promotes teachers' professional development.

Among the objects of the Act (section 6(f)), is the promotion of best practice in teaching methods, and this section specifically acknowledges the need to cater for the diverse needs of students. Further provisions indicate that the school (section 9) and Inspectorate (section 13) have roles to play in teacher education, highlighting the importance of collaboration and co-operation between all the stakeholders.

3.3.5   Teaching Council Act (2001)

The establishment of a Teaching Council represents considerable progress in maintaining quality standards of teaching. The work of the council will underpin efforts to protect the status of the profession and to promote a culture of well being and commitment.

The general objectives of the Teaching Council are to:
- Regulate the teaching profession and professional conduct of teachers
- Review and accredit programmes of teacher education for the purpose of accreditation
- Promote the continuing education and training and professional development of teachers
- Promote teaching as a profession
- Establish and maintain a register of teachers
- Establish procedures in relation to the induction of teachers
- Establish procedures and criteria for probation of teachers
- Advise the Minister in relation to teacher supply

3.3.5.1 Registration

It is the responsibility of the Teaching Council to establish a Register of Teachers. This register will contain general information regarding name, qualifications, employment details and details of any disciplinary proceedings. Any person not registered or who is removed or suspended may not be remunerated by monies provided by the state. The conditions for admission to the register may include the following:

• Qualifications

• Teaching experience

• Mental fitness

• Evidence of character

Each registration is for a period of 12 months and registered teachers will be issued with a certificate of registration.

3.3.5.2 Education and Training

In regard to education and training the Teaching Council has responsibility to review and accredit programmes of teacher education. It also reviews the standard of education and training necessary for a person entering a programme of teacher education and the standards of knowledge, skills and competence required for the practice of teaching. In addition it has responsibility for the promotion of continuing education and training and professional development of teachers. In this respect it is also charged with promoting the benefits of continuous education and will review and accredit programmes relating to the continuous education and training of teachers.

3.3.5.3 Fitness to Teach

The council is to establish a code of professional conduct. Misconduct by a registered teacher is considered to include any conduct contrary to this code or any improper conduct in his or her professional conduct or being medically unfit to teach. The council will investigate and determine the fitness to teach of any registered teacher. Following investigation where a finding of unfitness to teach has been made the registered teacher shall be removed from the register.

3.4   Other Reforms

Numerous other initiatives and reforms which do not deal directly with teacher education have had a significant impact on the abilities required of teachers. Curriculum change is an ongoing process, and teachers must update their knowledge and approaches regularly to keep abreast of developments in specific subjects. At a broader level, the introduction of new programmes, particularly at senior cycle, has placed an extra burden on teachers. These programmes take alternative approaches to the traditional Leaving Certificate. Moreover, they have led to an increase in participation rates.

The establishment of the School Development Planning Initiative highlights the whole-school dimension of the teacher's role. School Development Planning (SDP) is a systematic whole-school approach to the process of identifying the school community's needs and developing plans to address them. Internationally, there is widespread acceptance among educationalists

that this form of planning is a powerful means of promoting school improvement and school effectiveness (Davies and Ellison 1992). If SDP is to achieve its purpose, every teacher in the school should be involved in the collaborative planning process. Every teacher should locate his/her work within the overall framework of the School Plan and should view his/her work as interconnected with the work of every other teacher in the school in the communal task of delivering on the school's mission, vision and aims. The nature of the SDP process has a significant impact on the range of abilities required of teachers.

The introduction of the pilot School Completion Initiative reflects a move towards greater autonomy for schools. Under the initiative, schools will prepare plans to tackle disadvantage. These plans may involve a range of initiatives including induction programmes for first year students, after-hours programmes such as homework clubs, sport and leisure clubs, enhanced support for pupils at risk and strategies to improve school attendance. The nature of these activities will add to the multiple roles undertaken by, and to the range of abilities required, of teachers.

Tackling the causes of school attendance difficulties and increasing retention rates in education are also at the heart of the Education (Welfare) Act 2000. The Act proposes that boards of management shall develop school attendance strategies. The strategies, which will be designed following consultation with teachers (among others), will cover matters such as identifying students at risk and closer contact between the school and the families of such children. Section 22(5) provides that the board may appoint teachers to liaise with parents and "to give such assistance to the families of those students as the board … considers appropriate". This provides a further example of additional demands on teachers' skills and roles.

Apart from these specific examples, it is reasonable to expect that education reforms will continue in response to broader change in society. Teachers will continue to face new demands on their abilities and new facets to their multi-dimensional roles. That teacher education programmes must equip teachers to deal with these ongoing changes is self-evident. However, two key difficulties must be tackled. Firstly, the specific changes which will occur even in a few years time, cannot be predicted accurately. Secondly, there are so many potential demands on teachers that it would not be possible to include them all within a standard teacher education programme. The OECD review highlighted these issues: *"Teachers' roles … extend into practically all spheres of life… Among the qualities called for – in addition to the academic and the pedagogical – are political and negotiating competence, accountancy and fund-raising abilities, a repertoire of skills to assume extra-curricular responsibilities and to communicate with widely diverse groups, planning and management skills and an up-to-date knowledge of developments in technology and working life. Evidently G.B. Shaw was right: the teacher would have to live to the age of Methuselah in order to accumulate all the knowledge and professional expertise required to do the job properly."* (pp:91).

3.5   A Single or Dual Model of Initial Teacher Education Programmes

A key concern of the OECD Review (1991) was the need for a dual teacher education system – the concurrent and consecutive models. The concurrent model involves the parallel study of educational theory and specific subjects. In the consecutive model, students undertake a course in specific subjects, followed by a separate postgraduate course in educational theory. Both models also involve teaching practice. However, there are many significant differences between the two approaches.

The OECD review team discussed, in some detail, the strengths and weaknesses of the two approaches. However, they did not reach a definite conclusion, other than to note that "both [approaches] have their place and are meeting real needs" and that they should be seen as complementary.

The merger of colleges of education with university departments of education was also proposed by the OECD review team. Among the advantages cited in favour of this approach was the view that a common core of studies and professional education could be provided to cover education for primary and second-level teaching.

The Green Paper published the following year signalled a more radical move. Building on the review team's common module suggestion, the Green Paper proposed that all prospective primary and post primary teachers should undertake a three-stage programme of initial training which would involve:

- A university degree in which Education could be chosen as a subject
- A postgraduate teacher-training diploma (including teaching practice)
- A probationary year comprising part-time teaching plus training modules.

The report on the National Education Convention (1993) noted that there was strong support for the retention of the dual model, and when the White Paper was published in 1995, the Green Paper's proposal was not included. Instead, the White Paper proposed reviews of teacher education at primary and second-level, sowing the seed for the present review.

3.6   Duration of Initial Teacher Education Programmes

In response to suggestions that the Higher Diploma should be extended from one year to two years, the OECD review team concluded that the potential gains in quality would not warrant such a move. They noted that extension would be expensive and could deter candidates from opting for the teaching career. In preference, the review team suggested that induction could be lengthened and reinforced or that educational components could be taken as part of ordinary degree programmes. The review team also concluded that an extra year should not be added to the concurrent model, but that the equivalent of an extra year be built in as part of ongoing career development.

Duration was not dealt with explicitly in the Green Paper, although its proposed restructuring of teacher education (outlined above) would have had an implicit duration aspect. In addition, its model reiterated the review team's suggestion for optional educational modules as part of an initial degree.

Some participants at the National Education Convention argued that "the single year devoted to the Higher Diploma in Education was… pressurised in seeking to achieve the various objectives of the course". Although the White Paper is silent on the issue, the terms of reference for the present review highlight the need to make recommendations on duration. These recommendations must take account of programme content and of the potential to address teacher education needs through in-career development.

3.7   Content of Initial Teacher Education Programmes

In analysing the strengths and weaknesses of the dual model, the OECD review team highlighted areas where a change in emphasis on content might prove beneficial. They noted that extended teaching practice could be of benefit in the consecutive model while more high-level academic work might be incorporated into the concurrent model. However, in line with their recommendation that additional elements be incorporated into career-long development, such changes were not proposed for the initial courses per se.

Arguments concerning the number of degree level subjects taken by student teachers were considered by the OECD review team. The team focused on the advantage of flexibility conferred by a larger number of subjects, particularly in the context of relatively static recruitment and an education system with so many small schools (each limited in terms of numbers of teachers employed and consequently, extent of curriculum provision).

Although complimentary of the quality of teacher education offered by institutions, the review team noted that, in common with other western nations, instruction was primarily didactic. This means that instruction was structured around imparting factual content, with a teacher as 'primary initiator' and students effectively passive recipients of information. The team noted that didactic teaching had "great merit" but that research clearly indicated "that reliance on didactic instruction alone [would] not accomplish the tremendous educational tasks" which lay ahead.

While didactic teaching should continue to have a place, the team advocated increased emphasis on:
- Group work
- Teaching style and content sensitive to different learning styles
- More active involvement of the learner
- Developing lower and higher order skills in pupils of different abilities.

The challenge for teacher education was threefold: (a) to cater for in-depth mastery of specialist subjects, (b) to ensure that student teachers could master a sufficiently broad range of subjects to preserve flexibility in the system and (c) to ensure that teachers would know how to convey their specialist knowledge. In discussing growing interaction with parents and the community (but applicable equally to teaching style and course content), the OECD review team concludes that teacher education should emphasise teachers' roles as "articulators, managers and organisers of learning and not purveyors of facts and coaches for examinations".

Change is consistently highlighted through all documents as an influential factor in the selection of content. The Convention report noted that pre-service courses had kept pace with changing needs, but that this would be an ongoing requirement. The White Paper goes further, in identifying specific "important features which should underpin the professional preparation of second-level teachers". Many of these are included in the present review.

3.8   A Variety of Settings for School Placement

Although teaching practice is seen as a vital component of initial teacher education, it does not appear to have achieved prominence in major policy documents until the report on the national education convention. The OECD review does refer to relative time spent on teaching practice in the two models, but does not deal with the issue in any great detail. The national education report notes:

- the importance of partnership between institutions and schools
- central to this partnership approach, the value of a mentoring system where experienced teachers assist student teachers
- the need to avoid time-tabling student teachers as if they were established staff.

The partnership and mentoring themes were subsequently taken up by the White Paper and incorporated into the terms of reference for this review.

3.9   Induction and Probation

As the OECD review and the Teaching Council report note – induction involves application of theory and skills, while probation entails an affirmation of suitability for entry to the profession – but in most cases, the two coincide.

3.9.1 Induction: a Linked and Structured Phase of Teacher Education

As in the case of teaching practice, the development and application of practical skills are at the core of induction. However, in contrast to teaching practice, induction has been the focus of official attention for some time. Much of this attention has been in the context of in-service training, although the considered view is that induction forms a linking 'bridge' between pre-service and in-service education.

According to the Background Report to the OECD, the term (at the time) had *"no official standing, and any formal or informal procedures merely indicate the concern of school management to facilitate the young teacher's absorption into the school."* Indications of this development were evident in the documents and discussions elsewhere *"there is a need for a process by which a newly qualified teacher can be supported and encouraged in the acceptance of professional responsibilities and in the development of practical teaching proficiency, upon entry to the profession."* Induction is strongly emphasised as an important basis for all subsequent professional development.

The Background Report noted that although falling numbers had permitted improvements in initial education and teaching practice, there was considerable scope for improvement in the second and third "i's" (induction and in-service). It was argued that a young teacher's first year teaching constitutes a period of opportunity and vulnerability, and that the experience casts a long shadow over his/her career. It argued for phased increases in responsibility and mentoring support rather than having teachers *"thrown in at the deep end with a full teaching load and associated responsibilities".* Inadequate induction would run the risk of submerging new teachers' enthusiasm and positive attitudes.

Induction is characterised in the OECD review team's report, as a bridge between the "fully professional and largely self-directed role of the teacher and the preparatory, guided phase of pre-service education and training". It called for a move to a more structured system with clear objectives, procedures, roles and resources. Practical factors are highlighted, including the need to involve senior teachers as mentors in the process and the associated costs of this approach.

Support for a distinct, structured induction phase was provided by the National Convention, which in particular highlighted the need to involve mentor teachers in the process.

The White Paper's proposal to introduce a well-developed and carefully managed induction programme was a significant development. The programme would aim to:

• provide an opportunity to apply knowledge and skills acquired during initial education

• permit mastery of new knowledge and skills concerning school organisation, curriculum and application to different ability groups, classroom management, student assessment and reporting and self -evaluation.

Mentors and links with institutions including additional 'top-up' modules, and partnership between schools and institutions would be key elements in the process. The concepts of partnership and of the continuum of teacher education were reinforced by the proposal to introduce a system of profiling for each new teacher. These profiles would be prepared by the institutions and would cover individuals' strengths and weaknesses. They would be updated at the end of induction and would be used to inform personal development plans for the new teachers.

It was envisaged in the Teaching Council Report that the Council would take an active role in the induction process and would be involved in:

• Ensuring adequate support and advice for new teachers

• Ensuring such teachers may refine and develop initial skills

• Smooth the transition from initial training to fully qualified teacher by issuing guidelines and support materials and ensuring provision of support and advice at school level.

3.10 Probation

Probation concerns the suitability for entry to the teaching profession of a newly qualified teacher. The key question is to identify the person or organisation who appraises and certifies suitability. The Green Paper proposed to allocate this role to the Principal (who would first consult with appropriate personnel) and envisaged that the Inspectorate would undertake a monitoring role. Suitability would be evaluated using set criteria. Although the Convention Report supported the Principal's involvement, it argued that evaluation should be the function of an Inspector or a representative from the proposed Teaching Council.

The White Paper aimed to accommodate the differing views on the Principal's role by proposing that principals would evaluate suitability and make a recommendation to the Teaching Council. It also envisaged quality assessment from the Inspectorate and the need for detailed planning and consultation in advance of any change.

Although the Teaching Council Report dealt with the issue of assessment of probationers, it is not entirely clear who should evaluate suitability in the first instance. The report noted that the Council would assume responsibility and make the necessary arrangements for assessment and that procedures would be drawn up in agreement with relevant partners.

3.11   Continuous Professional Development

In contrast to the other elements of teacher education, in-career development has been the focus of attention for some time. Its relevance to this review lies in the concept of teacher education as a career-long process. In particular, the evolution of teacher education policy has moved towards the view of initial education and induction as providing the basis for enabling teachers to teach effectively upon qualification. However, this initial platform will of itself be insufficient to prepare teachers for all the challenges and changes which lie ahead. Initial education is of fixed duration and it is not possible or desirable to attempt to cover in 3-4 years every potential setting, problem or challenge which teachers may encounter in a professional career that spans decades. This need to take account of in-career development in reviewing initial teacher education is recognised in the terms of reference.

In-service (as it was then known) was the focus of a chapter in the 1980 White Paper on *Educational Development*. The chapter noted that opportunities to improve teaching techniques and knowledge are particularly important *"when research and experimentation have led to innovation and improved methods, which were not yet known or endorsed when the teacher was at the pre-service stage"* (pp:85).

The OECD review team referred to in-service education as a right and responsibility of teachers and characterised its role as the cement which binds the theory and implementation of educational reform. These sentiments are echoed in later documents which go on to propose structures to enhance and co-ordinate provision. In-career education's key role in helping teachers to react positively to change is highlighted in the Green Paper and subsequently in the White Paper. The latter identifies a wide range of changes which illustrate the futility of trying to squeeze everything into the pre-service phase. These include:
*   broad educational and social changes
*   curriculum revisions
*   new teaching strategies concerning educational disadvantage and special needs
*   collective school planning
*   increased devolution to schools
*   more structured links with parents and the community.

Limiting the range of activities and issues covered in pre-service education and allocating a wider range of skills to in-career education, could *"allow for beneficial re-organisation within pre-service courses, which… tended to be very full because of the absence of a structured in-service scheme"* (pp:127).

The Teaching Council has a key role in setting out and implementing a framework for continuous professional development.

3.12   Conclusion:
Emerging and Future Trends on Teacher Education Policy

This section has sought to trace the evolution of policy on teacher education. Although some ideas mooted by the OECD review or in the Green Paper failed to 'get off the ground', it is clear that the chain of policy formulation on teacher education spans at least a decade, and in the case of in-career development, at least two decades. The present review represents another link in the chain and discussion and implementation of its findings will extend the chain further.

3.12.1 Policy Direction

Some conclusions may be drawn on the direction of policy:

- Teacher education has gradually come to the forefront of the policy making agenda in terms of importance and urgency in the eyes of policy makers. The publication of this report and of the Teaching Council legislation, and its subsequent establishment, will ensure that this trend will continue

- There has been growing acceptance of the concept of teacher education as a continuum, spanning initial education, induction and in-career development. However, this growth has been accompanied by increased acceptance that the three phases, although separate and distinct in their objectives and content, must be seen and provided for in the context of a linked, career-long process of development

- Policy documents have increasingly emphasised the need for teachers to be active participants in their own training and development. However, the documents also acknowledge that with this responsibility comes a right to supports for that development

- There is growing emphasis on the professionalisation of teaching and on the responsibility of the profession (and its members) to ensure that standards are maintained and improved. This trend continues with the establishment of the Teaching Council and its role in regulating the profession

- Discussion of in-career development in particular, has served to highlight the futility of overloading the initial teacher education programme. Policy is moving in the direction of prioritising elements for inclusion at the initial stage and dealing with further professional development and specialisation through an ongoing process of induction and continuous professional development.

Chapter 4
Remodelling Initial Teacher Education Programmes

4.1   Introduction

Teacher education programmes at all levels are by nature and purpose composite: they include many strands of thought and scholarship and reflect a wide variety of intellectual traditions. Teacher education is not easily defined. It is perhaps, more easily described as the discipline of the disciplines. This has provided a major intellectual challenge for the teacher educator since teacher education was first formalised. There was no one solution to the question of what constitutes best practice. Each generation of intellectual endeavour built on that which went before, refining and developing as commitment intensified in search of new approaches. On the other hand, this quest proved frustrating for those whose responsibility it was to devise and design programmes of initial teacher education that could be delivered systematically and, it must be added, pragmatically, for the purpose of mass popular schooling.

To achieve success in meeting these objectives meant that complex issues had to be rendered less so. Accordingly, linear constructs by way of syllabus design were set down to accommodate strategies and approaches for practical delivery purposes. This process involved artificial curriculum or syllabus planning. It set out boundaries and parameters defined by the capacities of the delivery system and the constraints of time and resource. The most enduring outcome of this development has been the categorisation of teacher education into two separate sections or components – theory and practice.

It is not considered productive to further rehearse this debate here: rather the aim is to move forward from this sectoral thinking so that partitionist approaches may give way to the concept of integration of the knowledge bases of teaching and learning.

The Advisory Group wishes to ensure that every effort is made to achieve a more productive approach to planning the structure of initial teacher education programmes; the Group advocates a future approach and structure that will remove the current artificial division into theory and practice.

Teacher educators of the present generation are charged with meeting the challenges imposed by the inherent dichotomy of the theory-practice model. This major task is rendered more difficult by traditional and prevailing constraints in delivery systems, time and resources. The main priorities of remodelling may best be achieved through a loosening of the structures currently employed, in a move towards an integrated model.

Teacher education professionals will have much to say on this matter and the specifics of how this recommendation can be accomplished are left to the best professional judgement of teacher education departments. However, it is suggested that commitment and effort which concentrates on the following will prove key factors:

- Case studies
- Evidence based learning
- Problem solving

It is also important to note that the energy and creativity that teacher educators bring to this task provides a model in curriculum design for student teachers, who will be encouraged by the example set. Weak curriculum design merely confirms disintegrated structure and passive learning on the part of student teachers and encourages them to use that model later on in their own classroom. Conversely, a teacher education programme that leads by example and that demonstrates models of best practice in action will promote inventiveness on the part of the student teachers as they develop.

4.2   Towards an Inclusive Framework of Aims and Objectives

The Irish education system has a well-established and reputable tradition in teacher education. Over recent decades that provision has extended and responded flexibly to the growing demands of teaching and schooling. Furthermore, teacher education programmes have demonstrated high levels of awareness of changing social and educational trends in terms of planning, design and curriculum content. This level of professional resilience, sometimes in the face of adversity, reflects positively on teacher education professionals and is a pattern of commitment evident in the submissions made to the Advisory Group. Features commonly characteristic of the initial teacher education programmes include:

- a refined balance between traditional and progressive approaches;
- the capacity to respond promptly to change and expansion in the school curriculum;
- a positive attitude to coping with uncertainty, particularly in relation to numbers in recruitment;
- a newly devised mechanism for selection and access.

For these reasons and others, initial teacher education is well positioned to bear renewal and further development. This well-rooted culture, when worked from the inside will provide for further growth and a focused response to perceived needs in the decades ahead. The Advisory Group believes that further ongoing reappraisal and renewal in this regard should be strongly encouraged. This theme will be revisited in Chapter 6, which addresses the issue of professional development in teacher education.

In the development of an inclusive framework of aims and objectives for initial teacher education programmes it is recommended that particular attention be devoted to the following, which are considered to be core generic components:

- A basic mastery of the knowledge bases of teaching consistent with what might be expected of a beginning teacher. This will include an in-depth knowledge of the subject areas to be taught, coupled with a developing capacity to devise the best pedagogical methods to achieve learning on the part of the pupils
- Reflective and research literacies, including e-literacies, which will ensure that the newly qualified teachers have the capability to develop and support their own teaching and learning and that of their pupils on an ongoing basis

- A disposition towards ongoing and continuous professional development, which can be constructively defined and founded by initial teacher education programmes. It is important that student teachers understand that teaching is ambiguous and non-linear. The knowledge bases of teaching are not static and uncertainty is a strong feature of the teaching transaction. Teaching involves critical learning on the part of the teacher: it is an ongoing quest for what is best. There are few finite solutions, as teachers interact with subject and pedagogical bases in a variety of settings to achieve open-ended learning opportunities

- Implicit in the professional demands of teaching is a robust tolerance and amenability towards change. The beginning teacher can often respond to the uncertainty of teaching by seeking secure structures and by attempting to make static that which is inherently transient. A key goal for initial teacher education programmes in this regard must be to ensure that student teachers recognise that their professional lives will be about change and that the teacher's role is to be both a change agent and mediator of change

- A balance between individual teacher and team effort of groups of teachers is a key factor. Ultimately, teaching is about team effort which seeks to combine the professional expertise of all the teachers to develop a positive learning environment for the pupils. Consequently, a capacity to collaborate and to plan collegially is important. It is also important for the reason that teachers and schools are now being encouraged to see their work in the wider context of those other agencies which are professionally charged with promoting the best interests and well being of the youth population. In this respect, education is to be seen as extending out from the scholastic to include the wider life domain. This is the essence of school development planning.

It is to be remembered that the beginning teacher is just that – a teacher at the start of his or her career. In an anxiety to prepare well for the future, teacher education programmes may attempt too much, adopting a 'banking' approach to professional preparation. Consequently, the curriculum can be overloaded for the student teacher. Further, it is often the case that particular skills and masteries are emphasised at the cost of more generic capabilities.

One particularly damaging feature of this approach, which has often surfaced in debate, is the extent to which this overburdening of the student teacher closes off potential for further professional and intellectual growth. It has been argued in the research literature that in many instances, the impact of initial teacher education programmes is 'washed out' over the period of the first 5 years of professional practice (Vonk 1994, Dreikurs *et al.* 1998, Jong and Brinkman 1999). Teacher education, like all other education, is about opening - the opening of self and others to full potential. For those who have authority to devise teacher education programmes this is a principle of intellectual priority which should be protected against compromise.

Dewey clearly referred to this priority:

> "practical work should be pursued primarily with reference to its reaction upon the professional …… in making … a thoughtful and alert student of education, rather than to help him get immediate proficiency…. Immediate skill may be got at the cost of power to go on growing. Unless a teacher is … a student of education he may continue to improve in the mechanics of school management but he cannot grow as a teacher, an inspirer and director of soul life"
>
> (Zeichner, Currents of Reform 1996:217).

4.3   Orientation Studies

A strong unit of orientation studies is of fundamental importance in ensuring a positive experience for student teachers on teacher education programmes. Constructively designed, such units provide for the initial bonding compact between the student teacher and the programme. In addition, positively focused orientation explains and illustrates the strategic design of the programme and its inter-relatedness. This is essential, given the composite nature of the programme and given that there will be at least two major learning sites involved- the teacher education department and the school.

Orientation must include a period of school observation which constitutes part of a hands-on encounter with the culture of the school, the pupils and the host teacher as well as the model and plan by which the school is organised and according to which it functions. Mentor teachers can be of vital assistance in this area.

Orientation is best organised in small groups and preferably groups which will continue to work together over the period of the programme, so that student teachers inter-relate faster and more easily.

Student teachers must not be expected to teach experimentally in advance of completing their full orientation, which would be completed by a statement of:
* the student's assumptions about teaching;
* expectations of themselves in the teaching role, and,
* an anticipation of some of the outcomes.

All of these should be discussed and negotiated with the mentor teacher and the teacher education department supervisor.

A selection of the case studies which may be undertaken might usefully be given consideration at this time with a final assessment to be made at a later date when other programme components are being developed.

As the primary function of the orientation is being completed, it could be gently linked with the introductory stages of the teacher education process, which should not only consider teaching as it is but teaching as it might be in the future.

From this introductory point in the course students might begin to explore dimensions of the role of the teacher and selected issues (which could be revisited subsequently), to include:
* Assumptions about teaching
* How these assumptions affect teaching
* The nature of learners and learning
* Diversity of class and culture
* The future of the current model of schooling
* The creation of learning opportunities
* The knowledge bases which contribute to teaching
* The role of information technology in teaching

The Advisory Group would like to emphasise very strongly the importance of orientation studies. The Group recommends that two different school sites be provided for the school-based studies and that each period be preceded by an orientation studies component.

Student teachers' responses to these issues and their reflections on orientation should be centrally deposited in a database at the teacher education department where they are registered. This database could provide a rich vein of learning opportunity and sometimes produce practical examples of how attitudes and thinking change over time and with experience. In addition, this would constitute important research material on student teachers, their development and growth. At present, such important material is often lost, militating against any future understanding of the process of becoming a teacher.

4.4   Fusing the Experiential and Established Knowledge Bases

It would be unreasonable and indeed impractical to expect student teachers to make sense of their first encounters with the critical and problematic issues of education and teaching and learning without having a process by which to do so. This process can be encouraged by models of case study; evidence based learning and problem solving and very often these can be drawn from the reality of the school setting. In order to provide the beginning teacher with an early learning opportunity, it may be necessary to create a case study scenario. The purpose here would be to demonstrate how cases can be analysed using intellectual instruments constructed from history, philosophy, sociology, psychology of education and other areas of the knowledge bases. This would encourage students to develop multiple perspectives and approaches as they build on their own experience. This is a further example of learning by doing, which deepens levels of awareness and demonstrates the importance of the intellectual tradition in teaching and teacher education. In the applied sense, case study approaches help build the student's confidence in approaching problems and at the same time culture the critical skills of analysis, judgement, questioning, contextualising, comparing and contrasting - all of which are essential generic attributes of the effective teacher. The enabling aspects of this approach bring the student into closer contact with issues of concern, which in turn assists the development of a professional self-concept. Moreover, it will energise the capability to debate and articulate viewpoints in the context of the professional knowledge bases and is also a means of bringing the practice to the theory.

It is in this respect that the student teachers' research and reflective literacies will be translated into practice. Student teachers can build on real case study contexts derived from their experience in the school based studies area as their capability in constructing professional knowledge in teaching begins to develop.

The case study approach is not to be interpreted as a means of diminishing the importance of what are known as the foundation areas: it is rather to establish the critical ways in which these areas actually provide the foundation.

In relation to specific course content, the Advisory Group wishes to draw attention to two components which press for inclusion on teacher education programmes - Educational Law and International Education. Over the recent period a new legislative framework has underpinned educational practice and provision and it is important that student teachers are at least

acquainted with the legal rights and responsibilities of pupils and teachers. Specific attention should be devoted to the Education Act, 1998, the Employment Equality Act, 1998, the Education (Welfare) Act, 2000, the Equal Status Act, 2000 and the Teaching Council Act, 2001.

Gaining international perspectives in education will help student teachers to contextualise education and teaching. Research conducted by bodies such as the Organisation for Economic Co-operation and Development (OECD), ATEE, Council of Europe and the European Commission could be used as prime texts in this recommended area of study.

It will be a matter for programme designers to determine and justify the ways and pace of programme development, but programmes of study will be expected to take into account the model of the programme; concurrent or consecutive. Courses can be designed on a cyclical basis to ensure that themes, topics and issues dealt with at the orientation and introductory phase can be revisited at a more rigorous and demanding level as the programme develops over time and as the perspectives of the student teachers are enlightened by ongoing experience, and particularly by the school based encounter.

In order to accommodate the demands of the integrated approach, it is recommended that programmes be designed to include cross-curricular themes and issues. This will provide for interchange of the knowledge base components. The delivery system for this composite teacher education programme should itself be flexible and interactive.

The rate of development of undergraduate teacher education programmes will be different, as student teachers progress over a longer time period. In the concurrent programme it is recommended that school-based studies be introduced in the third year and continued in the fourth year of the programme. This provision will allow for a greater degree of personal and professional development on the part of the student before he or she takes up the challenges inherent in the school-based studies dimension. Orientation studies can of course take place earlier in the concurrent programme.

4.5   Approaches to School Based Studies

The school placement or teaching practice of student teachers has always been a core component in the design and planning of initial teacher education programmes. The participation of the student teacher in this context has varied and three principal models of teacher education have been highlighted in the literature (Zeichner *et al.* 1996). These are:
- The Apprenticeship Model
- The Applied Science Model
- The Inquiry Orientated Model

4.5.1   The Apprenticeship Model

In the apprenticeship model, the source of teaching expertise is thought to lie with experienced practitioners who demonstrate to the novice what is to be done. It assumes that good teaching is 'caught not taught'.

The approach may involve leaving the student teacher entirely in the hands of the host teacher, such that the teacher education department has little responsibility for ensuring that the teaching experience is an educative one for the student. In addition, what is learned during the period of the apprenticeship can conflict with the aspirations of the teacher education departments.

Even when the host teachers represent all the best qualities, there are major obstacles to learning for the student teacher inherent in a narrow apprenticeship approach. The lessons of experience for the student teacher are determined by chance and not as a planned or designed part of the teacher education programme. It cannot be assumed that the novice - through mere exposure - will acquire the expertise.

4.5.2   The Applied Science Model

The applied science model places emphasis on student teachers applying knowledge and theories in the classroom which they have acquired in the teacher education programme.

Under this model it is believed that the key to the development of teaching expertise lies either in a thorough preparation in the academic and foundation disciplines, or in assimilating 'the knowledge base of teaching'. Here the source of teaching experience is thought to lie outside the practices of teachers. The purpose here is for the student teacher to act in ways consistent with the aims and objectives of the teacher education programme. The experience becomes a time to demonstrate things learned previously, rather than a time for new learning on a developmental basis.

This approach ignores the vast expertise that resides in the practices of teachers as well as the potential to generate theory through experience in teaching and the wider student domain.

4.5.3   Inquiry Orientated Model

In the inquiry orientated model teaching is viewed as research and teachers as reflective practitioners. Teacher educators place emphasis on helping students to develop a greater understanding of their own practical theories and knowledge of teaching, and on learning how to develop new knowledge about teaching through their reflection in and on their teaching experience. Here the source of teaching expertise is thought to lie in part in the practices of teachers and in the environment of the school.

It is this approach that the Advisory Group wishes to endorse.

4.6   Components of a new Paradigm for Teacher Education Programmes: Extending an Inquiry Orientated Model

As our understanding of student learning increases so too does our understanding of the learning demands that teachers need to meet in their classrooms. This calls for new modes of learning for the education and assessment of teachers within a career-long continuum. This growing understanding of student learning is reflected in the new curricula and in assessment structures already in place in secondary schools.

Cognitive research studying student learning has spawned a new body of knowledge about the nature and process of learning that has implications for teacher learning (Putnam and Borko, 2000). Five key principles can be deduced from this research, to include:

- Meaningful learning is an active process

- Learning is a social process where learning is determined by the type and quality of interactions with the people in one's environment. These interactions determine both what is learned and how learning takes place. Learning is deepened when students have access to conversations and tools that both extend and challenge thinking, which demands that they have access to expert guides and mentors while learning to teach

- Learning is situated in particular physical and social contexts and these are an integral part of the learning experience. In other words, how a person learns a particular set of knowledge and skills, and the situation in which a person learns it, become a fundamental part of what is learned. This has implications for the school sites and classroom contexts in which students learn to teach

- Knowledge is not passed on by the teacher to the learner. Rather, knowledge is mediated by the learner's previous knowledge and learning dispositions. All knowledge is therefore 'constructed' by the learner in terms of this previous knowledge and through the thinking and learning dispositions available to the student

- Language, talk and writing are significant tools available to the learner that shape and extend thinking.

These five principles have implications for how we construct teacher education programmes in general. They demand that teacher education programmes construct authentic learning environments for student teachers. Authentic learning environments and assessment structures situate learning in meaningful contexts that mirror and foster the thinking and problem solving skills that will be demanded of them in their school settings as professionals. Thus, programme structures must engage directly with student teachers' cognition, beliefs, theories, skills and knowledge bases about teaching and learning. There is a consequent need to rethink the content, purpose and form of teaching, learning, and assessment environments in teacher education programmes.

4.6.1 Teacher Education: Toward New Teaching, Learning and Assessment Forms

In traditional teacher education programmes, the purpose of education has been dominated by the goal of 'knowledge acquisition'. To this end, the large lecture format has been the dominant teaching mode. In the same way, the end of year examination has been the main assessment form. Whilst this goal may have served students well in the past, our new understanding of student learning demands a fundamental shift. This shift requires that student teachers not only be introduced to the current knowledge bases of teaching and learning, but also be taught how to become life-long learners, how to access relevant and accurate knowledge, how to apply this knowledge to their own professional context, and how to generate new knowledge through systematic interrogation of their teaching and the research literature. This may involve significant un-learning as well as learning.

In summary, the core principles of the Extended Inquiry Orientated Model may be identified as:

- The goals of teacher education should become primarily concerned with creating self-directed, reflective practitioners capable of meeting the challenges and new demands being placed on them by a new learning environment. These new goals have implications for how we construct learning environments

- Teaching and learning structures that directly engage with teachers' beliefs, assumptions, theories, and understandings about teaching need to be provided. These learning structures will provide teachers with authentic learning experiences that mirror and sponsor the attributes demanded of them in their teaching sites and give the teacher educator the information necessary for developing authentic interventions
- Authentic assessment structures that require student teachers to engage critically and actively in the process of learning to be a teacher, and that adequately meet the competence necessary for professional status should become the norm. Such assessment structures would foster and shape the tools necessary for a lifelong engagement with professional development.

4.7   Building a Reflective Practice Environment

A clear understanding of the nature of the reflective process determines that teacher education programmes conceptualise reflection as an integral element in the programme design. It is understood that teacher education programmes will interpret and implement reflective practice in different ways. However, student teachers will need much mentoring, coaching and support. Therefore, there is a need for concise seminar structures where students have opportunities to be coached and mentored in this work. Many students will not have experienced reflective learning in any formal educational setting. A starting premise must be that teacher education programmes begin where students 'are at' and design programmes to meet students as learners from that point forward.

Exploratory work with student teachers as learners and an introduction to reflective thinking are required. Students' expectations for a quick technical teaching formula must be overtly challenged.

Small tutorial groups are necessary components of any teacher education programme that seeks to create authentic environments which foster complex thinking and reflection about teaching and learning. Such groups provide student teachers with opportunities to engage in purposeful conversations about what they are learning; the assumptions they bring to teaching and learning; the development of professional competence, and about the setting of future learning goals and learning actions. In other words, this provides a stimulus and support for students to become self-directed, intentional scholars of teaching. Small tutorial groups give students access to a committed group of peers, a 'discourse community' and an experienced tutor, thus acknowledging and capitalising on the social nature of learning.

The tutor's role is primarily one of facilitation and guidance. This role demands much skill and expertise in drawing out students' thinking, extending it through inquiry and feedback, and challenging those assumptions that need challenging. The tutor, as expert guide, models the feedback and inquiry cycle that is necessary to promote deeper understanding. This in turn will be expected of all in the discourse group, thus promoting peer involvement and engagement. This discourse community provides a space for student teachers to present their ongoing learning to an interested audience, and to receive sustained feedback on this work, over the course of the fieldwork experience. This process sustains engagement with learning. Traditional learning models rarely recognise the need for such direct engagement, support, and coaching. Assumptions and conclusions can be challenged as necessary, and the student teacher will experience the diversity that different viewpoints and perspectives bring to teaching actions. As

a result, student teachers experience how understanding and knowledge are constructed from experience, and how it develops into more complex forms through the tools of dialogue, inquiry, and reflection. They also experience a learner-centred pedagogy.

The curriculum of these tutorial groups comes from the shared experiences and understandings that students and tutor bring to their teaching practice. These experiences can be shaped into cases, action research projects, or problems of practice that students discuss and analyse in order to deepen their understanding of the many facets of classroom actions.

Thus, the school placement experience is re-conceptualised as a learning site for:
• Generating questions about teaching and learning
• Integrating fieldwork experience with theoretical readings and scholarship
• Generating data in the form of cases, problems of practice, or pieces of evidence collected to support understanding about a teaching or learning action
• Generating action research projects based on practice-generated problems and issues
• Refining the reflective tools of inquiry; self-evaluation; setting and monitoring learning goals; making observations and generating theories about one's learning
• Learning about the culture and context of the school community
• Developing a language and discourse for talking about practice concerns and learning

This work can shape and become the basis for authentic assessment forms that assess what the learner can do or demonstrate understanding in terms of knowledge application or knowledge generation to new contexts. These new assessment forms place responsibility on student teachers to reflect on and document their learning and competence in teaching over the school based studies period.

4.7.1   Case Study, Problem-Based Learning and Action Research

A case study is any particular issue or concern that is carefully tracked by the student teacher over time, from a number of different perspectives, and supported by data collection. Case studies are an integral part of problem-based learning curricula and are increasingly being used in professional education in medicine, law, social work and education. The principal idea behind problem-based learning is that the starting point should be a problem, query, or puzzle that the learner wishes to solve (Boud 1985, Boud and Felletti 1999). Problem-based learning curricula present the teaching case in narrative form and usually catch the contextualised and particular nature of a series of events. The case offers the learner some distance from the events thus providing safety for the learner to reflect and converse openly about the set of issues being framed by them. Case studies are usually left open-ended, inviting multiple interpretations.

Action research projects can be co-constructed with school personnel and involve teacher educators, teachers, and the school community. They can be organised around issues or controversial problems of practice. Action research projects engender a 'plan, reflect, action' cycle that can become a productive tool for ongoing learning throughout the life of the teacher. Good action research questions have the following characteristics:
1   They emanate from practice concerns or problems
2   They are professionally relevant
3   They are significant and authentic to the student's interest, context, and experience.

4.7.2 Reflective Practice

Reflective practice in teaching emphasises the following key features:

- An examination of and an attempt to solve, dilemmas of classroom practice
- An awareness and questioning of assumptions which the teacher brings to teaching
- Sensitivity to the institutional and cultural contexts in which the teaching takes place
- Acceptance of responsibility for curriculum development and school and system change
- Commitment to the teacher's own professional development

Reflective practice is not passive, but rather gives agency to the thinking of teachers. Advocates of reflective practice view each school and classroom as unique by virtue of their own qualities, meanings and challenges. Consequently, reflective teachers develop their practice through their own action research, performed in the actual context in which their teaching takes place. This ferment of practice and research is informed by a knowledge of theories of education in which teachers retain a critical perspective on these issues, their meaning, veracity and applicability within their own classroom, with a unique set of interests and relationships. In this way, educational theory is re-conceptualised and placed in the service of the teacher who is challenged constantly to understand or come to terms with the unique conditions of his/her particular experiential context.

Initial teacher education is required to respond to the acute challenge of introducing student teachers to the complexity of teaching and learning. The present structuring of some teacher education programmes comes from within an academic model which assumes that introducing students to theories of education is sufficient to develop a theory-embedded practice. This framing does not adequately address the complexities and requirements that present day schools demand, nor does it adequately represent what is known about the learning process from research in cognitive psychology. The teacher education programme, if conceptualised within a career-long learning approach to continuous professional development, must identify its main purpose as developing those reflective habits of mind which give teachers the skills to critically examine, critique, speculate, experiment and explore the teaching and learning world. These are the fundamental capabilities that lead teachers toward ongoing life-long engagement in learning throughout their teaching.

Initial teacher education must foster and nurture student teachers as responsible beginning professionals and equip them with the cognitive tools, theoretical bases, and critical thinking dispositions to actively engage with their professional school contexts as intentional lifelong learners. Therefore, as the object of teacher education is to create sustainable and transformative professional communities of teachers, models of teacher education must focus on culturing the disposition of mind and thought conducive to those modes of reflective teaching.

4.7.3 The Teaching Portfolio

Portfolios have a long history in the arts and in some professions. They are also increasingly central to new curricula and practices in first and second level schools, where documenting and keeping a profile of student learning is necessary for school reviews and planning. Portfolios can more adequately capture the complexity and situatedness of teaching, a facility that traditional assessment structures lack. They also offer the student the possibility of documenting learning over time, collecting evidence of that learning, and reflecting critically on it.

The construction of a teaching portfolio is recommended as an effective method of preparation of student teachers which helps them to document their learning and ongoing development. Research on portfolio development illustrates the centrality of coaching and mentoring work to the process. There is a need to develop a sense of community and teamwork in portfolio development in order to promote a culture and expectation of sharing ideas and being actively engaged in thinking about teaching and learning. Student teachers learn much from their peers' experiences, explanations, and interpretations. These portfolio sharings are often the most helpful learning opportunities for student teachers since they are immediate, and promote the idea of learning as an ongoing shared and team process.

Learning is enhanced when students have access to the kinds of interactions and personnel who can coach and mentor them in these new skills and understandings. The portfolio process sponsors such engagement. In this environment student teachers need to be taught how to reflect and how to use reflection as a tool to order, experiment, evaluate and learn from their practice experience. They also need support and instruction on how to use this information for setting new learning goals and improving future teaching actions, an essential skill for a life-long approach to professional learning. This requires access to small group tutorials where ongoing feedback and structured conversations on the assumptions, beliefs and meanings brought to experiential work can be focused on. Reflection on the assumptions and meanings brought to teaching experience will lead to a greater awareness of the biases and complexity inherent in teaching decisions.

Effective portfolio work will be characterised by diverse sources of evidence using observations of supervisor's, mentor's and host teacher's evaluations. Peer critiquing of lesson plans and work schemes in addition to the pupils' responses by way of assignments and project work are also important contributing factors.

Ongoing research on learning by student teachers suggests strongly that students have rarely, if ever, been asked to reflect on themselves as learners at primary, post-primary, or undergraduate level (Parker 1997, Powell, 2000, Spilkova 2001). Without ongoing access to a discourse community that is committed to inquiry, reflection and development, the teaching portfolio may become simply a repository for a diverse collection of pieces of work. Reflection is central and is a tool that must be both taught and facilitated.

The teacher education program must provide both a reflective assessment structure and the human and environmental resources (mentors, tutors, readings, feedback loops) that afford students opportunities to develop more complex frames for understanding their role in creating and sustaining a learning environment for their own pupils.

Thus, creating a teaching portfolio requires complex skill, direct engagement and understanding, on the part of teacher-educators and student teachers. It also requires a fundamental shift in the kind of learning environments teacher educators provide for student teachers as well as in the kinds of cognitive tools introduced to them.

The form of the teaching portfolio is likely to include a statement of the learner's beliefs and assumptions about teaching and learning, a school study statement, and a series of portfolio entries that carefully document and reflect on the evolution and development of more complex understandings of teaching practice. Portfolio entries usually include supporting pieces of

evidence collected and selected from classroom work. The portfolio requires students to collect ongoing evidence of their teaching competencies from their practicum setting, to select those pieces of evidence that are most important to them, evaluate and monitor their performance on an ongoing basis and present a logical and coherent rationale for their decision to include particular pieces in their portfolio. Portfolio entries may include case studies of particular students or problems of practice; an entry may involve small action research projects that can become part of the portfolio. Portfolio work coaches student teachers in making productive classroom observations, articulating these observations in small learning groups, collecting, selecting and presenting evidence (e.g. student work, assessment sheets, project work, instruction plans, media, etc.) from this work, reflecting on the meaning ascribed, and on how it might inform future actions.

4.7.4   A New Assessment Structure: The Teaching Portfolio

Student teachers on school-based studies are constantly called on to apply new concepts to their teaching or to generate new understanding of concepts gained from their contexts. Each new context provides different sets of learning challenges to the student teacher and this contextual challenge needs to be facilitated and engaged within the teacher education programme. The documentation of this learning and the generation of ideas can be captured in the teaching portfolio. The overall purpose of the portfolio is to develop students as self-directed life-long learners and as critical reflective practitioners aware of the contested nature of teaching and learning and aware of their responsibilities and commitments as professionals.

It is important that the programme designers and teacher educators are aware of where the portfolio fits into the overall assessment structure and programme, the expected outcomes, the resources needed to support its development, and the learning goals it supports. Therefore the purpose, form and process of portfolios may vary widely between programmes, depending on the overall assessment structure and design. However, it is clear now from portfolio research that portfolio development demands learner-centred teaching models that coach and mentor reflective habits of mind.

4.7.5   Research into the Scholarship of Teaching

Student teachers' portfolio work could become the basis for a growing knowledge database on teacher cognition, informing teacher educators about how teachers learn and change, and on the contexts that support such learning. Such a database would sponsor inquiry into teaching as well as provide teacher educators with the curriculum materials that will be needed in the new learning environment described above. There is a strong need for the development of teacher education with case-based curricula where student teachers have access to cases emanating from Irish contexts and where they can explore controversial or contested issues at a distance. This will engender a necessary critical discourse about teaching and learning and may engage students in tackling the critical issues facing Irish education, which include: special education needs, educational disadvantage, multicultural education, literacy, school planning and change. Cases could be organised around these issues and cases developed by student teachers later become the basis for further development and documentation and possibly form part of tutorial group work. Case writing is an underdeveloped area in teacher education and one that could be very fruitful in sponsoring a research interest in teaching as scholarship. Case materials would provide a much-needed resource for teacher educators.

Teacher education departments should seek to build up a resource or archive of the portfolio work of student teachers, which will become for others the raw material of problem-solving case studies and evidenced based learning. Such an archive would also serve as primary source material for research in how student teachers learn and develop.

4.8   Towards A Model of Teacher Education in Collaboration

It is evident that a model of partnership is necessary to support teacher education structures into the future. The partnership model combines and strengthens teacher education programmes and the school site in a number of important aspects:

• The prospect of change is enhanced

• The teacher education programme is more coherently and systemically set in the reality of the knowledge bases of the teaching profession

• The tension between basic research and applied research is reduced in favour of greater harmony of approach and understanding.

The school can become the learning site for the teacher education programme, thus providing for well-rooted case study and problem-solving experience. The school based studies will broaden the context of the teacher education programme and will perceive the pre-service needs not in the light of classroom instruction alone, but in terms of the wider culture and environment of the school.

The school based study experience must become a much more integral part of teacher education programmes. However, it is important to note that placing teacher education primarily in the teaching site, i.e. in the school, will not in itself, automatically create a rich learning environment for students. Potent learning environments must be constructed carefully to both affirm and challenge the learner. In other words, the learning site becomes a place where students feel supported, when their needs are acknowledged and addressed by a curriculum that is designed and mediated, and is sensitive to the actual concerns they encounter. The mentor or expert guide provides a structure for the exploration of these concerns and can contextualise them within a wider theoretical or professional frame. While it will be important to emphasise critical analysis, programmes are too often involved only in critique and are not sufficiently solution-orientated.

The partnership will energise all the parties to it. It will provide for ongoing renewal and inquiry with a secure sense of collegiality. It will strengthen the professions of teaching and of teacher education.

4.8.1   Strengthening a Strategy of Partnership

There is a strong sense of purpose and common commitment between teacher education departments and schools in the Irish context, which has developed over many years of interaction. Schools have played a positive role in the manner in which the school and teaching environment were shared with student teachers. The overall school environment was made hospitable to the interests of the student teacher in many different ways - advice was provided, confidence was deepened and morale was strengthened - across a wide range of issues, from the professional to the personal.

It is important that the strength of this relationship is not underestimated. What must be understood, however, is that this was an informal relationship and the schools did not play any official role in the teacher education programme. Apart from providing for the placement, teachers can make little official contribution to programme design, content, assessment, monitoring or mentoring of student teachers. It is to be acknowledged, however, that some input is made informally in discussion and exchange of opinion or viewpoint as the opportunity arises.

The school experience or teaching practice of student teachers has always been a central element in the design and preparation of initial teacher education programmes. However, the participation of student teachers in schools, the negotiation of school sites, and their access to local support have varied widely between institutions. In some cases, students negotiate their own entry into the school site. This is inappropriate and leaves the student teacher in a vulnerable position without a formal contract between the school and the teacher education department.

There is a need for agreement among all the partners about the learning goals of the teaching placement, how these goals might interact with the school site, the university site, and how they are integrated into the overall programme of study for the student teacher. Therefore, in order to maximise the student teacher's learning from teaching placement, there needs to be a carefully constructed partnership approach between all those involved in the student teacher's education, including school personnel directly involved with the student's teaching practice experience, teacher education professionals, and the students themselves.

The purpose of this partnership approach is to recognise and acknowledge the different expertise and knowledge bases of the partners, who emerge from different contexts and learning sites, and as a result have different and important perspectives on teaching and learning. The objective is to come to shared understandings about learning goals, curriculum, and expectations for the student teacher, for the school, and for the teacher education department within the framework of the student teacher's overall education and the school-based study experience. Such sharing of goals will lead to a more co-ordinated and collaborative approach between schools and teacher education departments. It is envisaged that such a partnership approach would prevail throughout the induction year, the early professional development of teachers, and the life-long professional development of teachers and teacher-educators.

The conception of this partnership is that it needs to be carefully constructed: this will require extra resources in dedicated personnel whose primary task will be to develop these partnership relationships. The role and function of these dedicated personnel would be to:

1   facilitate collaborative conversations between partners through seminars, ongoing meetings, newsletters, ICT;

2   plan and provide for ongoing development of partnerships;

3   develop curriculum programmes that adequately meet the educational needs of mentor teachers in participating schools;

4   review learning contracts between all the partners including teacher education institutions, student teachers and participating schools so that each partner is aware of its responsibilities;

5   review partnership structures and curriculum units on a regular basis;

6 develop curriculum programmes of study for teacher educators and supervisors that adequately meet the educational needs of new assessment structures and teaching modes;

7 ensure that there is adequate co-ordination and understanding between all those involved in the education of teachers.

The Advisory Group's recommendation for the structured formal involvement of schools in the overall teaching education programme represents a new departure. The Group is of the view that the present resourcing of teacher education does not allow for adequate co-ordination or collaboration between schools and education departments, and that as a result much learning potential is lost. The development of such partnerships holds good potential for the ongoing development of teacher education programmes in general, for schools as learning organisations, and for the open exchange of expertise and knowledge between both. Support structures such as regular meetings, seminars, newsletters, and teacher learning network groups (through ICT), will greatly enhance and facilitate the development of these partnerships. Resources for constructing, developing and reviewing this partnership approach on an ongoing basis need to be ring-fenced. The agreed programme of study and partnership appointments needs ongoing review and should be viewed as an evolving one, requiring constant revision and refinement according to different contextual and environmental needs.

With the introduction of more formal arrangements, processes and structures, the school can become a more productive learning site for the teacher education department, the student teacher and for the established teachers themselves. A greater degree of coherence between the mutual interests concerned would open up many learning and research opportunities. A stronger dynamic would prevail and a wider range of perspectives would be forthcoming. The wisdom of established effective teachers accumulated over many years of professional experience is a rich vein of expertise, which can be optimised and mobilised for the benefit of the teacher education programme.

4.8.2   Planning School Based Studies

School-based studies and the activities within them should be carefully planned to ensure that students have opportunities progressively to:

- understand how schools are structured and managed;
- develop their practical skills and capabilities in teaching of a subject or subjects;
- acquire new techniques for classroom management;
- understand the role and place of the school within its wider social context;
- learn how to reflect on experiences for future learning and teaching.

Given the importance of each period of school-based studies it is prudent to plan in order to achieve maximum linkages between the various course elements. In devising and constructing arrangements for school-based studies, teacher education departments and schools will, as a minimum, typically agree on:

- The pattern of school based studies to be employed in the course
- The establishment of formal linkages between the teacher education departments' elements of the course and the individual school based studies
- The formal arrangements for induction of students into the school and for ongoing mentoring or other activities

- The nature and quantity of classroom observation and teaching to be undertaken by the student
- The wider aspects of school policy to be explored
- The assessment arrangements for the student to be carried out by school staff and/or teacher education departments' tutors noting that although these may emphasise the student's practical capability in the classroom, they should also have regard to wider professional attitudes and appropriate behaviours.

A partnership board, representative of the interested parties to the collaborative model should be established to organise and manage the school based studies. The board should be located in the teacher education departments.

Periods of school-based studies will permit a greater degree of articulation between the various teacher education department-based elements of the course and the school based studies. The block release structure may allow for a more complete opportunity for orientation in advance and for review and reflection in retrospect. Students should undertake periods of school-based studies in at least two different schools to provide for an extended and varied experience. Students should not themselves select or negotiate the school where they are to be based, these arrangements should be the responsibility of the partnership board and should be fully negotiated at a local level.

4.8.3   Professional Identity and Solidarity

As part of the collaborative model, peer learning has much to contribute. Student teachers can be placed in schools as teams of learners and explorers. Peer learning multiplies the learning opportunities for all concerned. It allows also for a variety of perspectives, which will be of benefit to the mentors. Moreover, it will lead to their growing knowledge and understanding of the first exploratory steps of the student teacher.

Peer learning also contributes towards a spirit of solidarity. It demonstrates in practical ways that teaching to best effect is an overall team and school effort. It will be of benefit also to the personal development of the student teacher. Balancing positions between independence and interdependence is a key aspect in this regard as are the senses of professional identity, belonging and esteem.

This period in the life of the student teacher during which the development of professional identity begins is a critical one. It encompasses the personal theories of student teachers; the assumptions they bring to teaching, their expectations of role and status; the supports offered; the levels of professional and personal maturity developed, the sense of satisfaction fulfilled; ambition sharpened and the self and professional concept becoming established.

It is important that this pattern of success does not give rise to complacency. Evidence of how quickly a downturn in career preferences can occur and of how difficult it can be to arrest decline is manifest in other, parallel professions. The best preventative is to be proactive. Teacher education must play a part in profiling the profession of teaching in a positive light, the many fulfilling aspects of a career in teaching need to be more completely emphasised and the importance of the profession to the well being of a nation should be set out unequivocally. In many respects, these are career-long issues, which must always be kept in sharp focus. At the

career's beginning and during both the induction period and the early years, they are defining issues. Pride in the profession and loyalty to its value system are root connections to a positive professional career and it is of critical importance that teacher education programmes continue to emphasise and nourish these primary elements.

4.8.4   Combined Expertise - Combined Creativity

Student teachers can have an impact on schools and teachers and open up professional development opportunities in a variety of ways. Student teachers often offer new lessons, new curricula and new methods to the established teacher. A complementarity of approaches can be established and a team teaching model can be explored. Student teachers provide important role models for school pupils among whom there may be aspiring teachers. This is a factor which is often overlooked. If pupils are to consider teaching as a career, they must see student teachers in a positive light. They must see them as cherished professionals in training - well supported and well regarded. The perception of teaching as a professional career will not be enhanced if student teachers are seen to endure neglect, frustration and lack of fulfilment. It is well to remember that the school is the arena where career choices are made. In respect to teaching, pupils will have a first hand exposure to what might lie ahead should they choose that career option.

In the deployment of a collaborative model, schools where the school-based studies are located must be identified as formal partners. In order to develop this model, training in mentorship must be provided by the teacher education department in collaboration with the schools. This is a formal professional role which makes its own demands, as voluntarism and commitment through good will without authority or responsibility are set aside.

4.9   Mentoring, Tutoring and Supervising

Experience of initial teacher education in other countries and of professionally based studies in other professions have demonstrated the powerful impact of a mentor system in which an experienced professional practitioner is given a formal role in the development of trainees or beginning colleagues (Peretez 1997, Zanting 1998). The availability of good mentors, while ultimately a decision for school management, must also be a matter for partnership between the teacher education departments and the schools. Teacher education departments should ensure that appropriate briefings are given and professional development opportunities made available to those selected for this critically important role. Indeed, such development could be formally accredited and would subsequently assist in the development within the teaching profession of a cadre of advanced professionals with postgraduate qualifications in the area.

Such views, which this Report endorses, make heavy demands not only on those who wish to become teachers but also on those who seek to prepare the nation's future teachers. The establishment of rigorous partnerships between teacher education departments and schools and the creation of a cadre of committed, well chosen and appropriately trained mentors in the schools of Ireland is arguably the best way of achieving these important, but ambitious, goals.

It would be inappropriate for this Report to specify in detail the strategies which the teacher education departments and schools will adopt in order to meet these requirements. Professional development for both tutors and teachers from the schools will be necessary if the

basic functions of mentoring are to be achieved. Appropriate professional development should be available, over time, to all receiving teachers of all receiving schools as well as to the staff of teacher education departments responsible for students during their school based studies periods. Professional development should be accredited by the teacher education department as part of a continuous professional development commitment.

Each institution will need to carefully define the terms 'mentor', 'tutor' and 'supervisor', and the different roles and functions of each need to be clearly stated. All participating partners will need to undertake careful planning, co-ordination and integration. The recommendations outlined above imply substantial resources to be allocated for curriculum development, and for the ongoing professional development of teacher educators, mentors, supervisors and tutors.

It is important that teachers assist supervising student teachers, as they are in more regular contact with students and therefore better placed to provide informed feedback, keep track of learning experiences and to support them in developing their understanding of teaching. The potential to capitalise on these advantages is a further argument in favour of planning for school-based studies being shared between the teacher education departments and the partner schools.

In other countries, the role of the teacher has traditionally been to support student teachers in the development of their practical skills and of their knowledge base in what are considered the 'real' contexts offered by the classrooms where they are placed and the classes with which they work. In contrast, the role of the education department supervisors has been to encourage the students to generalise from those specific classroom experiences and to develop skills of self-evaluation and an understanding of the principles of student learning applicable to these and other contexts (Townsend 1994, Jones 2000, Buckberger 1994).

Supervising teachers appear to have consistently adopted a caring, supportive but relatively challenge-free role in their relationships with students. The transition from the current conception of relatively passive involvement of the teacher to the more demanding one of mentor/supervisor activity will require a significant reshaping of the roles to be played by teachers as well as a major change in perceptions on the part of schools, student teachers and teacher education departments.

In order to encourage and assist teachers to develop as mentors, it will be necessary - at a minimum - to establish a culture within both schools and teacher education departments which recognises that:

- Teaching and learning are complex activities
- Teaching and learning are problematic and value laden
- Teaching and learning involve social as well as cognitive (knowledge based) activities
- Evaluation and assessment, including opportunities for self-evaluation, are a vital part of the process
- Teaching and learning take place over time, with student teachers needing to encounter situations of increasing complexity as they progress through their course

It will be necessary to provide opportunities for staff from schools and teacher education departments to:

- Explore and agree on their individual and collective roles;
- Clarify their assumptions about the nature of teaching and learning;
- Detail the demands to be made during each of the periods of school-based studies;
- Develop strategies by which the teachers 'craft knowledge' can be brought to the surface and mediated;
- Contribute to the process of student assessment;
- Devise procedures and strategies for the implementation of collaborating teacher schemes

The strategies outlined above are designed to assist not only in the development of student teachers as 'professionals' but also in order that their mentors and other teachers in the hosting schools should have similar opportunities. Indeed the strategy is wholly consonant with the views expressed in the Report of the Steering Committee on the Establishment of a Teaching Council. The Report states that the profession of teaching *'incorporates, enhances, and renders complementary the perceptions of the teacher as a skilled practitioner in the science and art of teaching, who applies professional knowledge, personal intuition, creativity and improvisation to accomplish teachings task; as problem solving and decision making clinician; as curriculum maker, researcher, evaluator, and reflective practitioner; and finally as "significant other person who exercises considerable moral influence"'* (Ireland 1998:6).

4.10   Teaching Subjects

In recent years, research has sometimes queried the adequacy of teachers' subject matter preparation (Kansanen 1991, Jong and Brinkman 1999, Ball 1990, Sosniak 1999). A degree in a subject is no guarantee that the teacher can easily communicate basic concepts to adolescent pupils. It is suggested, therefore, that student teachers be provided with increased opportunity to engage with major concepts of their teaching subjects and to encounter research techniques which explore a mastery of conceptual analysis.

The research literature indicates that expert teachers demonstrate a good hierarchical understanding of their subject which requires both in-depth knowledge of the subject itself and familiarity with the organisation of the subject (Sosniak 1999, Ball 1996). The extent of a beginning teacher's in-depth knowledge influences their modes and models of teaching. Those with greater knowledge emphasise conceptual explanation and understanding more than rote learning. Knowledge of the structure and organisation of a subject assists the delivery of teaching in an integrated, rather than a topical, manner.

The beginning teacher requires a foundation of subject knowledge upon which pedagogy and a subject competence can be built. Four dimensions of subject matter are critical for teachers:
- Content Knowledge
- Substantive Knowledge
- Syntactic knowledge
- Beliefs about the subject

4.10.1 Content Knowledge

This refers to factual information, the organisation of the subject and central concepts. The teacher needs to be able to identify, define and discuss individual concepts, relationships among concepts and relationships between them and other disciplines. Beginning teachers may often have to continue learning new content in their subjects as well as master teaching skills. The beginning teacher has to be prepared to teach new or unfamiliar topics and requires the skills and disposition to acquire new information from sources other than the school textbook. Teaching unfamiliar material may encourage avoidance of teaching certain topics or promote usage of a lecturing style. It affects both the selection of material to teach and the models of teaching to be employed.

These issues result in a number of considerations for teacher educators. Student teachers must be made aware of the critical role subject knowledge plays in teaching. They need both to learn the central concepts and organisation of their subjects and to be aware of their responsibility to continue to update and acquire new subject information at all stages of their career. Thus, teacher education must encompass learning to teach; learning more about subjects, and learning how to communicate that knowledge to a variety of learners. In addition, student teachers must learn how to acquire new knowledge: this involves information searching and research skills and reflective, critical and analytical skills. Information technology is a key component here.

4.10.2 Substantive Knowledge

This is the interpretive framework of the discipline that guides the focus of inquiry, makes sense of data and provides models of explanation. In any particular subject, there may be one or more interpretive structures. In some degree programmes, these structures may never be explicitly discussed. Teacher educators need to address this by incorporating discussion of substantive structures of the subject disciplines.

4.10.3 Syntactic Knowledge

This refers to the knowledge of how to conduct inquiry in the discipline and to the way in which new knowledge is introduced and accepted. Knowledge of such structures may often only be explored in higher level or postgraduate programmes. Teachers who do not fully understand the role of inquiry in their disciplines may not be able to demonstrate this in their teaching. They may consequently be limited in acquiring new information and have difficulty evaluating developments in their field.

4.10.4 Beliefs about subject matter

Teacher's beliefs about their subject profoundly impact on their teaching. These beliefs relate to content issues, attitude towards the subject and conceptions of what is important. Teacher educators need to encourage student teachers to identify, explore and review these beliefs. Opportunities must be given for student teachers to examine the beliefs they have about the content they teach and consider how this influences their performance.

The Advisory Group would like to see permanent positions of employment made available for the recruitment of teacher education professionals with specialisms in curriculum areas who can then be appointed as course leaders in the area of teaching methodology.

4.11   Teaching to Diversity and Inclusivity

It is evident that schooling and teaching are far more eclectic than is allowed by traditional 'standard' or 'regular' definitions and it is therefore of central importance that educational requirements recognise and acknowledge both the common and diverse backgrounds from which pupils come. Irish society is becoming increasingly multicultural as it comes to terms with students from a variety of backgrounds. In this regard, it is important that the education system acknowledges, cherishes and responds appropriately to the distinctive culture, traditions and ways of life of all students. However, attention to the subtleties of multi-social or multi-cultural difference need not deflect from the purpose of considering a set of common understandings and shared experiences. In a democratic society, there is an over-riding imperative to prepare citizens to participate fully in that society. This is the essence of inclusion and it is a critical issue for the student teacher, who will be challenged to address such ethical issues as:

- How a more just and equitable school setting and educational system are created
- How to manage the tensions between the common and the distinctive
- How to develop a learning environment which fosters hope and ambition in place of despair and disaffection
- How to promote the belief that education has made and does make a difference which enriches the mind and raises the spirit
- How a meaningful and empowering education can best be defined and delivered
- How to promote an ethic of care, compassion and mutual understanding

All pupils have the right and need to be literate - and indeed information age literate. Student teachers need to be sensitive to and aware of this imperative and to develop an appropriate educational outlook, professional commitment and critical consciousness that responds constructively to the challenges.

In a practical sense, student teachers need to be exposed to these principles by way of example - to hear the voice of established teacher educators and teachers express concern for and affirm their belief in others. It is for this reason that school based studies can be further complimented by the organisation of other experiences beyond the formal school setting, for example different social and learning support sites might be visited and different environments explored. In this respect, student teachers could link formally with those in the teacher education departments whose research is focused on such subjects as diverse learning needs, learning difficulties and other support strategies for learning and participation in the schooling process. This would prove a fertile learning site for both parties; the established teacher engaged in postgraduate work and the beginning teacher.

4.12   An Ghaeilge

Ní miste go ndéanfadh an córas atá ann le múinteoirí a oiliúint freastal ar na himpleachtaí a bhaineann le hionad na Gaeilge mar theanga oifigiúil stáit agus mar chuid de ghréasán teangacha an Aontais Eorpaigh.

Tá ról tábhachtach ag an gcóras oideachais maidir le polasaithe an stáit i leith chaomhnú agus chur chun cinn na Gaeilge agus chultúr na Gaeilge i bhfianaise fhorálacha an Achta Oideachais, 1998, go háirithe.

Ina theannta sin, soláthraíonn foghlaim na Gaeilge deiseanna luachmhara le tuiscint agus le meas ar oidhreacht ilghnéitheach na hEorpa a chothú i gcomhthéacs na peirspeictíochta idirchultúrtha atá riachtanach i sochaí ilteangach agus ilchultúrtha den chineál atá i gceist i dtíortha an Aontais Eorpaigh inniu. I ngeall ar an ról atá ag an oideachas maidir le leas na sochaí a dhéanamh, ní miste go gcinnteodh an córas oiliúna go ndéanfaí forbairt ar an eolas, ar na scileanna agus ar na luachanna cuí i measc oidí a chuirfeadh ar a gcumas oideachas idirchultúrtha a chur ar fáil. Meastar go luíonn sé le réasún go mbainfí leas as eolas na n-oidí ar an nGaeilge agus ar shaol na Gaeilge mar bhunchloch le cur chuige idirchultúrtha a thógáil uirthi. Meastar gur den riachtanas é go gcuirfeadh an córas oiliúna deiseanna ar fáil d'oidí agus d'ábhair oidí

- Eolas maith a bheith acu ar an nGaeilge agus ar ionad na Gaeilge i saol an phobail
- Eolas a chur ar chúrsaí sochtheangeolaíocha a bhaineann le gairm an oide
- Eolas a chur ar pholasaithe oifigiúla a bhaineann leis an nGaeilge agus le teangacha agus le cultúir eile
- Meon dearfach a fhorbairt i leith na Gaeilge agus i leith teangacha agus cultúr eile atá i gceist in Éirinn
- Bheith inniúil ar leas oideachasúil a bhaint as an dátheangachas/ilteangachas agus as cur chuige idirchultúrtha

4.12.1 Riachtanais Mhúinteoirí Gaeilge go Ginearálta

Ní mór freastal ar fhoghlaimeoirí sa Ghaeltacht agus lasmuigh di arb í an Ghaeilge a áthairtheanga agus orthu siúd arb é an Béarla nó teanga eile a máthairtheanga. Níl tacaíocht ar fáil ó shaineolaí oiliúna oidí a mbaineann a s(h)ainábhar go príomha leis an ngné seo. I ngeall ar an tábhacht a bhaineann le stádas na Gaeilge agus de bhrí gur féidir go mbeadh ganntanas oidí ann, is den riachtanas é go bhfaighfí réiteach ar na fadhbanna seo. Moltar go ndéanfaí a leithéid de cheapachán i ngach roinn oiliúna oidí. Tá sé tábhachtach go gcuirfí deiseanna oiriúnacha ar fáil do mhúinteoirí Gaeilge a n-eolas ar an teanga agus a gcuid scileanna teanga a chothú agus a fhorbairt, de réir mar is gá.

4.12.2 Riachtanais na scoileanna Gaeltachta agus na scoileanna/ sruthanna lánGhaeilge

Tá gá le cadre múinteoirí a bheadh inniúil ar theagasc a dhéanamh i scoileanna Gaeltachta, i scoileanna lánGhaeilge agus i sruthanna lánGhaeilge agus ar an sainchultúr a bhaineann leo a chothú. Moltar go leanfaí le cúrsa réamhoiliúna trí mheán na Gaeilge a sholáthar in Ollscoil na Gaillimhe mar atá á dhéanamh faoi láthair. Ina theannta sin, ba cheart gearrchúrsaí a chur ar fáil dóibh siúd a bhfuil an Ghaeilge acu sa chéim nó a chruthaíonn ábaltacht sa teanga a mbeadh sé mar chuspóir acu cáilíocht a sholáthar a chuirfeadh ar a gcumas d'oidí a mbeadh sí acu aistriú go dtí scoileanna Gaeltachta, nó go dtí scoileanna/sruthanna lánGhaeilge, dá mba mhian leo. Is den riachtanas é go mbeadh ball roinne lánaimseartha amháin ar a laghad i ngach roinn a dhéanfadh cúram de mhúineadh na Gaeilge.

4.12 An Ghaeilge

The system put in place for the training of teachers must have regard to the implications of the position of Irish as an official language of the state and as one that is part of the diverse linguistic heritage of the European Union.
The education system has an important role to play in relation to national policy on the preservation and fostering of the Irish language and culture, in particular in the light of the provisions of the Education Act, 1998.

In addition, the learning of Irish provides valuable opportunities for the development of understanding and appreciation of the diversity of the European cultural heritage in the context of the intercultural perspective needed in a multi-lingual and multi-cultural society of the kind common throughout the European Union today. In view of the role played by education in promoting the good of society, the teacher education system should ensure the development of appropriate knowledge, skills and values among teachers to enable them to provide an intercultural education. It would be logical to use teachers' knowledge of Irish and Irish culture as a basis for an intercultural approach. In this context, teacher education should equip teachers with:

- A sound knowledge of Irish and of the place of Irish in the life of the community
- Knowledge of sociolinguistic factors relevant to the work of the teacher
- Knowledge of official policies in relation to Irish and to other languages and cultures
- A positive attitude towards Irish and towards other languages and cultures in Ireland
- The ability to exploit the educational opportunities associated with bilingualism and multilingualism and with an intercultural approach.

4.12.1 Needs of Teachers of Irish in General

Teachers must be equipped to provide a service to learners in the Gaeltacht and throughout the country whose mother tongue is Irish as well as to those whose mother tongue is English or another language. The teaching of Irish is not presently supported by a teacher education professional with a principal specialism in this area. Given the importance of the status of Irish and the likely shortage of Irish teachers, there is an acute need to resolve these problems. It is therefore recommended that such an appointment be made in every teacher education department. It is also important that teachers of Irish be given opportunities of maintaining and improving their knowledge and skills in the language and in the teaching of the language, on an ongoing basis

4.12.2 Needs of Gaeltacht Schools and of Irish Medium Schools and Sections

It will be necessary to provide a cadre of teachers equipped to teach in Gaeltacht schools and Irish medium schools and sections and to contribute to the maintenance of their distinctive culture.

It is recommended that the present system, whereby pre-service training through Irish is provided by University College, Galway, be continued. In addition, custom designed short courses should be provided for teachers with a degree in Irish or with a proven ability in the language, to enable them to move to Gaeltacht schools or to Irish medium schools or sections, should they wish to do so.

4.13   Diverse Educational Needs

An understanding of diverse needs in teacher education programmes and in schools requires a broader perspective than currently prevails. Fundamental to good teaching is the recognition that not all things are learned in the same way. Effective teachers must recognise and accommodate differences and appreciate the nature and level of diverse needs and determine accordingly how the curriculum is delivered. Ongoing professional guidance and development will assist them to respond to the diversity inherent in the classroom of the twenty first century.

Recurrent trends in diverse educational needs (Berres et. al. 1996, Corno and Snow 1986, Hollins and Oliver 1999, Mittler and Daunt 1995) point to the importance of including the following in teacher education programmes:

- A focus on the integration and inclusion of students with diverse needs into the 'regular' classroom

- Team teaching

- The implementation of individual education plans for designated pupils to outline their personal learning goals

- The use of technological aids such as computer assisted learning programmes

- An awareness of parents' and pupils' rights to enhanced educational counselling

- The inclusion of a diverse needs module as a component in initial teacher education

- Ongoing research and development in the area of diverse educational needs

- A move away from the practice of withdrawing pupils for special help in favour of a Learning Support Teacher or Resource Teacher working in the class

It is clear that new and proposed legislation provides for a greater degree of inclusivity within the school system. It will be important that student teachers fully understand the legislative requirements and statutory responsibilities, not least in terms of professional code and conduct.

4.13.1 Module on Diverse Education Needs

It is essential that issues and practices relating to diverse educational needs and provision permeate the whole of the teacher education programme. This should be evident in the specific pedagogical areas of the course.

A compulsory module catering for diverse educational needs should form part of all teacher education programmes so that all student teachers gain experience with diverse needs students as an essential element of their education. The content should challenge the concept of diverse needs held by student teachers and should examine ways in which the class teacher can provide a meaningful learning environment for all pupils. The notion of providing differentiated learning within a group situation is critical to this type of learning environment.

An understanding of the three levels of diversity should be emphasised:

1 Acceptance of the heterogeneous nature of any group of learners will necessitate the differentiation of lesson delivery. Different abilities within the class will require teaching that is graduated in terms of content, materials and tasks in order to make it accessible to all in the class. This will require exploration of task analysis techniques, the importance of effective and explicit teaching and individual lesson planning. In addition, the role of information

technology and other resources that facilitate learning for pupils with special educational needs could be explored.

2 Student teachers should learn to employ a range of multi-sensory approaches to teaching which allow for pupils' different learning styles. In addition, they should be encouraged to look for and build upon the different intelligences that exist within all pupils. Identification of pupils' strengths and weaknesses; metacognition; building self esteem; collaborative and team teaching; whole school approach; working with other agencies, professionals and parents are all important areas for exploration.

3 The module should emphasise that different pupils will present different quality and quantity of work and that each should be assessed and valued according to the ability of the pupil. This will entail studying ideas associated with creating the inclusive classroom where all pupils are valued and validated. Issues covered will include school ethos, the pro-active school environment and current perspectives on inclusive practice.

In addition, student teachers should undertake an experience where they would shadow and assist a special needs specialist either in the mainstream or in a special education setting, working in the basic area of literacy and/or numeracy. This should be included as part of the portfolio work. In the shadowing period, the student teacher would, with the help of the mentor, identify the needs of the individuals and devise lesson plans accordingly. In the following period the student teacher would implement, monitor, evaluate and reflect on the plans.

4.13.2 In Support of Complementary Alternatives

The traditional model of post primary schools and centres of education is now complemented by a number of different approaches. This is particularly true in relation to curricular areas, which provide for the Leaving Certificate Applied, the Leaving Certificate Vocational Programme, and others. In addition, schools have demonstrated a flexibility to respond to post Leaving Certificate needs with the introduction of Post Leaving Certificate programmes, senior colleges, Youthreach and training qualifications. Consequently, teacher education curricula must demonstrate an awareness of these developments and ensure that the student teachers are acquainted with the relevant issues, policies and programmes. More work needs to be done in this area and it will be necessary to support teachers in further developing their skills in response to these needs.

4.14   Personal Development of Student Teachers

The maintenance of balance between the professional and personal development of the student teacher is of fundamental importance and should underpin teacher education programmes. Teaching is very demanding on the personal resources of the individual. In many respects positive teaching involves the sharing and giving of self in terms of inspiration, motivation, modelling, leadership and in many unspoken ways in which teachers provide for the development of pupils. The professional aspects are usually carefully designed, implemented and assessed. However, personal development, while seen as everybody's concern, may end up as no one's concern. Personal development should permeate all aspects of the programme and be offered within a designated module.

There are a number of contexts in which a teacher develops and grows as a person, i.e. cultural context, value system, dominant educational beliefs, gender, social interests and life experience.

As teacher development requires self-awareness and understanding, so it must include self-knowledge, intra-personal and interpersonal skills and the development of attitudes and feelings. Teacher development as self-understanding can take place through lectures, tutorials, research, teaching practice and many other ways. To complement these avenues for personal development it is worth noting that the process of personal development has three important dimensions. These are:

- The development of a person over different life stages
- Personal development specific to the profession of teaching
- Prioritising career plans linking personal and professional lives, ongoing development, etc.

A personal development module should seek to promote the education of the whole person and to build self-confidence in student teachers in a range of different contexts. It should facilitate the development of practical self-management skills and transferable skills as part of a career-long learning process. Team skills, initiative, problem solving, leadership, managing success and failure are all part of the interpersonal repertoire of skills.

The module may be best taught through the experiential learning cycle: this progresses from student experience, to sharing and relating one's experience with others, processing of experience, application to life situations and generalising the learning for future experiences linked to the portfolio work.

The module may be assessed by a variety of procedures to assess knowledge, skills, attitudes and feelings, possibly including presentations, self -assessment and critical reflection exercises. The self-knowledge, skills and attitudes acquired through such a module can contribute substantially to the personal development of the student teacher and promote the development of helping skills, which are not an optional extra in the profession of teaching.

In the case of the concurrent courses, in which students may be younger and have a less well-developed knowledge base, personal development is likely to assume a greater prominence in the early stages of the course, with the professional development aspects increasing in importance and rigour as the course develops.

For postgraduate courses, given the very severe time constraints under which they currently operate and the prior knowledge of the students gained from their earlier experiences in higher education, the professional development aspects are likely to have greater importance over the duration of the programme.

4.15   Course Outcomes

Teacher education cannot be described simply in terms of statements of competence, with their attendant implications of a narrow technicist base concerned mainly, if not solely, with the acquisition and application of a range of practical skills. Although teaching certainly has craft elements it is more than that - it is a profession. As such, it requires knowledge, understanding and skills of complex kinds and implies a commitment to values, such as justice, equity, truth and rationality.

In assessing the achievement of students it is, therefore, necessary to have regard to this broader view of the professional teacher, i.e. the teacher not only as a skilled performer, but also as a reflective practitioner and one who is personally committed to lifelong learning. The assessment process should, therefore, ensure that it assesses not only the current capabilities of the student teacher but also looks ahead to the development of his or her capabilities.

These capabilities, and their assessments, while having a clear focus on pupil learning must also encourage the student to take account of and be actively involved with the wider aspects of the educational process and how it affects development, e.g. the class, the school and its community. Thus in examining student outcomes or achievements it may be appropriate to group the capabilities in the following way:

- Those related to the subject and content of teaching
- Those related to the classroom
- Those related to the school and the education system
- Those related to professional values, attributes and abilities

4.16 Assessment

Traditionally each of the elements in programmes of initial teacher education have been subject to separate and independent formal assessment using traditional examination papers. Arguably, such approaches can be justified in terms of ensuring that the assessment instruments are valid for, and reliably estimate the performance of the students, in each of the separate course elements. However, they fail to provide any evidence as to the integration of course elements and in particular of the establishment of linkages between the activities based in teacher education departments and those undertaken during the school-placement.

One of the overall aims of initial teacher education is to promote in the students a commitment to, and involvement in, self-directed learning activities. It is therefore considered inappropriate that assessment be based entirely on a combination of written examinations and assessment of practical teaching skills, as this fails to address this goal.

Schemes of assessment should, therefore, be developed in partnership between the teacher education departments and the schools. Assessment schemes, while ensuring appropriate coverage of the major course elements, should also require students to demonstrate that they can integrate concepts drawn from the different course programmes and relate these to practical issues in the school placement setting. Course designers should consider the introduction (if they do not already do so), of synoptic or thematic assignments, which require the students to draw on both teacher education department and placement experiences and to evaluate their consequences for action. Such assignments might, for example, engage the student in reviewing the school's strategies for curriculum development, language acquisition, integration of children with special needs, or for the development of positive behaviours. Course designers who include student journals as part of their learning strategies might give consideration to the relative advantages and disadvantages of using such journals as formal or informal assessment instruments.

Each course should have a clearly stated assessment policy, to include as a minimum:

- The assessment arrangements – purpose and types of assessment
- Assessment criteria and grading system and who acts as assessor
- Procedures for appealing against grades, or for reassessment
- Procedures for combination of grades
- The role and duties of the external examiner or examiners in both the Teacher Education Institute-based and school-based elements of the course.

All of these items should be incorporated into the course handbook.

4.17 Review

It is considered desirable to conduct follow-up research on student teachers within three years of graduation to establish the adequacy and efficacy of the initial teacher education programme. This would provide teacher educators with the opportunity to make adjustments and amendments where deficiencies are recorded and would also allow for induction and continuous professional development programmes to be designed against the emerging and on-going needs of the beginning teacher.

Recommendations

The Advisory Group recommends that

- Teacher education should be seen as part of an interlinked framework encompassing initial induction to continuous professional development. It is recommended that the teacher education programmes maintain their current durations. In place of the investment that might be made by extending the duration of programmes, it is recommended that this resource be concentrated on induction and beginning years in a formal and costed way
- The Enquiry Orientated model is best suited to teacher education programmes given the needs of student teachers and subsequently of the teaching profession
- The curriculum of teacher education programmes should be tightly integrated
- The teacher education process should be collaboratively designed and organised with inputs from the education partners
- Each teacher education department should establish a partnership board comprising the representatives of placement sites and the teacher education professionals, to be given executive responsibilities for the organisation and management of school based studies components
- Partnership boards should, as part of their executive functions, be required to negotiate the placement of student teachers with the school in which their school-based study is to take place
- Two different school sites should be provided for school-based studies and each of these periods should be preceded by an orientation studies component
- Teacher educators should emphasise the importance of reflective practice, particularly since this underpins the concept of lifelong learning
- Teacher education departments should develop and share inter-institutional databases of case studies

- New posts should be created to allow for the recruitment of teacher education professionals with specialisms in curricular areas who could be appointed as Course Leaders in the area of teaching methodology

- Assessment models commensurate with the learning culture of the programme environment should be devised, with an emphasis on continuous assessment and a concentration on portfolio studies as the principal content to be assessed

- Both the consecutive and concurrent models of teacher education have numerous merits and benefits and there is a place for both of them in the Irish education system. Therefore, the Group does not recommend that one model be chosen over the other

- Flexible pathways of accreditation, which encourage the accreditation of prior learning and which are underwritten by cross-institutional co-operation, will be of substantial importance in the development of continuous professional development model

- Teacher education programmes should have a strong orientation phase to allow students a period of observation in the schools where they are placed for the school based component of the programme

- Teacher education must inculcate an understanding of how inclusivity for all learners is a central tenet of schooling and teacher commitment in the educational system; it must also provide for professional proficiency across the diverse spectrum of learning

- A compulsory module catering for diverse educational needs should be included in all teacher education programmes

- Student teachers must be made fully aware of the legislative requirements and statutory responsibilities which govern their profession

- There should be further support for teachers who are developing their career to include teaching in programmes other than mainstream programmes. This support should be provided at the level of continuous professional development by way of appropriately constructed models

- All teacher education departments involving the curricular area of Irish should make full-time permanent appointments in that area and in Irish teaching methodology

- Custom designed courses should be provided for teachers with a degree in Irish or with a proven ability in the language, to enable them to move to Gaeltacht schools or to Irish medium schools

- In order to create a culture of awareness of Irish language policies and to generate a positive attitude towards Irish, teacher education programmes should be linked with the Oifigeach na Gaeilge position (where this exists) within institutions

- The provision of teacher educators in the specialist subject curricular areas and the teaching methodologies should be more completely supported

- Personal development should permeate all aspects of teacher education programmes and compliment a compulsory personal development module

- Research should be carried out on beginning teachers to determine the efficacy of initial teacher education programmes and to assist in the design of induction and continuous professional development programmes.

Chapter 5
Induction

5.1   Introduction

The Advisory Group has already emphasised the importance of the orientation component in initial teacher education programmes. Well-structured strategic orientation, it was argued, is a key to success. A similar analysis is made regarding the role of induction as a major contributory factor in the well being of the teaching profession overall.

Most of the major recommendations for educational reform in Ireland over recent decades have highlighted this need and called for a more complete approach in support of the inductee teacher. Internationally, as is clear from the research literature, induction is targeted as a priority issue (Featherstone 1993, Gold 1996, Moran *et al.* 2000). Regrettably in Ireland it has not yet attracted the attention it deserves.

5.2   Beginning Teacher and Professional Identification

It is essential that the beginning teacher identifies and bonds with the teaching profession at an early stage. The challenge of transitioning from teacher education programmes to the role of teacher is not to be underestimated either at a personal or a professional level. This issue of transition might be addressed formally towards the close of the initial programme. In addition, the structures and processes that are to be put in place to support and mentor the progress of the beginning teacher can be outlined conveniently at this time. Every effort must be made to ensure that professional belonging and participation are accomplished, along with an affinity with the culture of the profession, its heritage and values system.

Long-stay immediate appointment to teaching posts is not generally readily available to student teachers on graduation. It is not unusual for new entrants to have to wait up to five years for permanent appointment. Consequently, there is a danger of what might be described as professional drift. In such situations, the challenge to the beginning teacher can become all the more acute, leading to less than positive attitudes, low morale and a sense of frustration at being marginalised. Induction programmes should seek to protect the inductee from these possibilities. In the absence of such measures, the new entrants to the profession may not sustain their interest and could seek other careers. Evidence provided in the research literature points to the importance of positive induction for the prospects of the retention of new entrants to the profession (Borko 1986, Huling-Austin 1990, Swan and Leydon 1996, Vonk 1994). It would be a function of the Teaching Council to decide how induction programmes are accredited as part of the probation process.

Ireland is one of the few countries within the European Community where a career in teaching is still a popular option. However, as this Report has already highlighted, this should not lead to complacency. It is necessary, rather, to build further and enrich opportunities for beginning teachers to secure the maximum possible degree of personal and professional fulfilment from their career.

The progression from teacher education programme to teaching should be planned in a coherent and integrated way. Close collaboration between all of the potential parties: schools, teacher education departments, the inductee at the centre, is recommended. In the interests of continuity of endeavour, the further progression of the portfolio exercise as a means of developing the reflective practitioner model is advised. Mentoring, monitoring and evaluating are recommended as support measures.

Following graduation, student teachers very often move away from the immediate hinterland of teacher education departments and the partnerships, with the result that these supports cannot be provided in the traditional way. Participation in the induction process should not be defined by the location of the school but should be available to all students. Information technology will be of major assistance in that aspect, providing for the maintenance of on-line interaction. Still, this mode of delivery will not be sufficient in itself. A series of appropriately devised handbooks and other support literature should be made available for introductory purposes and ongoing developmental needs. In addition, it will be important to plan for seminars and workshops where inductee teachers can come together for peer group sessions under the guidance of the teacher education professionals. Insofar as practically possible, opportunities for observation of established professionals at work should also be provided at set times over the induction year.

Unlike many other beginning professionals, the new entrant to teaching is required to take on a full teaching load and no exemptions from this are permitted. Very often too, duties in addition to teaching are expected to be undertaken. It is the view of the Advisory Group that such a range of responsibilities is too extensive and may prove too arduous. It is recommended that inductee teachers' required teaching times be reduced from the norm of the teaching requirements. This time could be used to better participate in the induction programmes and allow for a more gradual growth to full professional responsibilities.

5.3   Beginning Teaching: Needs and Challenges

In Ireland there has been little research completed on the needs of the beginning teacher with the result that the obstacles and impediments in the path to ongoing progress are not sufficiently well understood. It is readily agreed, however, that initial teacher education programmes cannot and indeed should not attempt to prepare for a lifetime in teaching. From their experience, teacher education professionals are well positioned to anticipate the pattern of a first year in teaching in a general sense. Their contribution to the induction programmes can be well complimented by the other expertise available to the process, particularly that of school principals, who have the advantage of seeing at first hand how the beginning teacher responds to the challenge of more complete participation in the teaching profession.

It is recommended that teacher education departments should engage in research projects with inductee teachers to more accurately assess their needs, the pattern of their development and the obstacles and impediments which may slow their progress.

It is to be acknowledged, however, that some of these needs will be individual and may not conform to any regular system of benchmarking or appraisal. School cultures differ; organisational and managerial literacies are employed in a variety of ways, syllabus and texts will be approached in varied ways and the inductee will have to respond to these realities.

Very often isolation can be a problem for the beginning teacher, particularly if the support peer group of the initial programme is not replaced by an equivalent in the first year of teaching. Also evident is the challenge of nurturing positive, parent-teacher relationships. In this respect, support is needed to develop skills to ensure a good relationship with parents. This includes ongoing communication, handling parent-teacher meetings, unscheduled meetings and mediating concerns and issues.

It is commonly speculated that discipline and resourceful classroom management skills cannot always be fully mastered by the student teacher on graduation. For the beginning teacher, this can prove to be an area of acute adversity giving rise to stress and tension. It is at this critical and searching point of the career that the beginning teachers demands care and support. It is at this point also that the maturity derived from the personal development modules will help to sustain the beginning teacher's self-confidence and to build a strong self-image.

However, the way in which an inductee responds to the many challenges encountered will largely be determined by his/her personal orientation. The induction programme cannot prepare for each individual case. The question of personal orientation must be raised, however, albeit in a generic sense. How individual inductees perceive themselves, how open this perception is and how developmental it can be are questions which must be asked and answered.

It has already been stated in this report that initial teacher education programmes, by their nature, cannot address all of the issues or make complete preparation for a life-long career in teaching. Assessment of pupils' performance and participation ranging from the tasks of lesson assignments to more summative assessment modes such as end of term and end of year examinations will be a new experience for the beginning teacher. Challenging, too, will be the role of mediating assessment modes and results to parents, both formally and informally. Very often, parent-teacher relationships are defined by the quality of this transaction and the status and reputation of the teacher can often be dependent on it. It is an area of the teacher's work which demands visibility and accountability of a high order. In the execution of assessment duties, teachers need to be confident, open and positive. This will call for expertise in the area of assessment and an assured handling of the various factors of which it is comprised. For these and other reasons, assessment is of key importance. Special attention should be devoted to it on an ongoing basis, and over the period of the induction programme in particular.

The Advisory Group encourages that consideration be given to the concept of the beginning teacher as a period of particular professional need over the time span of the first five years. For that purpose and over that period, specifically devised programmes to the level of master's degree might be put in place. This would ensure a formal framework for the support of the teacher over this critical phase of development. This master's programme might be taken over graduated periods allowing interchangeably for on-line learning, self-directed learning, self-appraisal and possibly more pronounced emphasis on research and research methodology. While this programme would be voluntary it would, it is believed, provide for a strong cohort of teachers who would in a short number of years, be well placed to contribute more critically and substantially to the varied tasks and responsibilities of teachers. It would also provide for a strong threshold to the various streams of expertise on which the education system depends for service on a number of different levels.

Recommendations

The Advisory Group recommends that:

- Induction programmes be provided for all beginning teachers

- Induction year be seen as part of a continuum of the first five years of the development of the beginning teacher

- A designed process of partnership between school mentors, teacher education departments and the Teaching Council be put in place to organise, manage, mentor and monitor the inductee teacher

- Agreement be reached between education partnerships, the Teaching Council and the teaching profession concerning the maximum number of hours per week that the inductee may teach

- Portfolio exercises be used in the induction programme as a means of extending the reflective practice model

- Teacher education departments engage in research projects with inductee teachers to more accurately assess their needs

- Specific continuous professional development programmes be introduced leading to a masters degree for the beginning teacher

- Induction programmes be suitably flexible to allow for a concentration on the individual school where the inductee is in post

- Induction programmes seek to develop critical levels of personal awareness among beginning teachers

- Assessment be supported as a key competence over the period of the initial programme

Chapter 6
Continuous Professional Development

6.1   Continuous Professional Development for Teachers

Teaching is a knowledge based and knowledge intensive profession. Consequently, we need to have the best teachers, for whom the best possible support should be made available. The whole world is changing at a rapid pace and these changes are being reflected in schools and classrooms all over the country. For example, the technological revolution and advances in ICTs have strong implications for teachers and their jobs. Furthermore, traditional models of school have changed to include PLCs, Youthreach, and other new and innovative programmes and in recent times, the National Council for Curriculum and Assessment has proposed a number of curriculum and syllabus changes which were subsequently adopted. As a result, there is a multiplicity of demands made of teachers and there is an increasing need to provide for the professional development of teachers in order that they in turn will be able to meet different needs at different times.

6.2   Variety of Provision of Continuous Professional Development

The Advisory Group wishes to emphasise the need for different modes of continuous professional development for different schools and individual teachers. There are many ways in which continuous professional development can be achieved. There is a need for teacher education departments and schools to recognise how the diverse needs of teachers are linked to the various stages of their career.

Flexible modes of accreditation and administrative structures which allow for the accumulation of credits to the level of award and qualification should be introduced. Education professional development providers may need to research the professional needs of teachers more comprehensively. Professional development programmes might be best built in partnership and negotiation. Diversity and flexibility will be key issues. Schools should be provided with a specific continuous professional development budget to be invested, in collaboration, in the professional development needs of the school and the teachers.

It is recommended that future professional development initiatives should be founded on higher award accreditation opportunities, where participation in all forms of professional development will be recognized, assessed and awarded through modular building blocks to the ultimate level of formal post-graduate awards.

Subject associations in Ireland have made a very substantial contribution to the continuous professional development of teachers. Support for these should be further strengthened, given their importance and achievement record. Extra funding, over and above existing provision, should be made available in this area.

6.3   Teachers Doing Research

Extending the process of continuous professional development of teachers through collaborative research to include prominently a model of teacher research, suggests a significant departure in the relationships among people in the school. Collaboration in and across school communities is an important source of support for teacher research, which facilitates individual teachers, who are at different stages in their careers, to engage in professionally-centred, self-directed and experientially focused professional development. Teacher research provides a more personal and individualised model of professional development for teachers who do not want or need traditional in-service courses since it lends itself to greater choice to meet the broader scope of teacher interest and experience.

Teacher relationships will be influential in the nature of the research and its impact on professional development. Schools are characterised by norms of collegiality and experimentation, which determine the success and implementation of curricular innovations. It is an axiom that successful teacher research has a 'spin off' effect on individual practice as well as enhancing collegiality among teachers and that it nurtures a more consistent, collaborative means of professional development. The concept of teachers doing research provides a model for self-evaluation and self-actualisation.

Teacher research does not happen automatically in the school setting. It needs to be brought about gradually with due respect for those who might feel unable to participate. Such response should not be perceived as resistance: in fact it must be respected and accommodated within the school, as resistance to change can be founded in fear of the unknown, personal insecurity or quite simply not seeing the need in a particular situation. Teacher research generates a pro-active culture in schools which empowers research communities to overcome negative peer pressure and disapproving attitudes to change. It most assuredly changes the culture of a school - when improvement becomes a norm, colleagues listen to, and learn from each other in a climate of mutual respect and interest. In such circumstances, groups of teachers are encouraged to work together, supporting each other's efforts, advocating for each other in the wider community and providing positive peer pressure to bring about desired outcomes.

6.3.1   Developing Habits of Organic Inquiry

Teaching by its nature presents research as a complementary state of mind in which habits of organic inquiry can be developed. It presents an opportunity to give shape to a unity between the work of teaching and the need to continue to learn. Where teacher research processes and practices secure a wider degree of support, teachers are enabled and empowered to contribute towards educational reform and the teacher's role therein.

Teachers own their research when they control its design and claim their own niche in the research community. Such research takes account of the pupil, the teacher and the wider school community.

Teacher centred research focuses upon what teachers can do that will benefit the pupils' intellectual, social and civic development as it gleans insight into their needs and how these needs might be met. Thus, the goals of the research must be continuously evaluated, reflected upon critically and revised accordingly in light of the best interests of the pupils, the teachers and the school's community.

The importance of research relationships and the power of a research community can not be overemphasised in terms of how they provide a vehicle for testing our ideas and create a forum for sharing our ideas with others, aimed at finding answers to teaching questions. Positive research relationships among the research community tend to overcome the obstacles one encounters working in isolation by causing people to gravitate towards productive behaviours that stimulate practice and intellectual development. This will be particularly relevant to the processes of whole school evaluation, school development planning, curricular strategy and other means of maintaining forward-looking perspectives.

6.4   Continuous Professional Development for Teacher Educators

Much attention has focused on the continuous professional development of teachers. While this is a critical issue, it is of vital importance that the continuous professional development of teacher educators be more fully supported.

In developing a rationale for the continuous professional development of teacher educators and teachers, many of the same principles apply. However, it is important to acknowledge that leadership is expected from the teacher education sector as well as more advanced proficiency and scholarly commitment. Teacher education must lead by example and demonstrate the ways and means by which a profession can and does fulfil the responsibilities of providing models of best practice.

The continuous professional development of teacher educators is delineated by a number of categories, which include:
- ongoing development of the profession in order to ensure the best possible programmes
- consistent development of the profession to ensure that innovative and progressive thought is provided every opportunity to grow
- development of a professional expertise which is critically aware and articulate in its participation in the debate on matters of educational concern nationally and internationally
- protection of the professional status of teacher education
- upholding of high standards which will contribute to the recruitment of high calibre personnel successively and thereby command respect across the professional sectors.

Teacher education in Ireland has been endowed by high quality personnel over the period of recent decades. The quality of their expertise and their commitment has attracted favourable comment from a number of official formal observers (OECD 1991). However, the dangers of complacency must be guarded against. Recruitment, renewal and revitalisation are key to the ongoing energising of this critically important professional cadre within the education system in general.

Much of the continuous professional development of teacher educators in Ireland has been self-tasked and poorly supported by meagre resources. The norm has been interaction with professional associations nationally and internationally. The acquisition of higher degrees and advanced qualifications is another marked feature of professional development. Less formal activities include departmental seminars, student response to department questionnaires and peer tutoring. Also noteworthy is the strategy of visiting scholars and sabbaticants. These assist

in bringing new perspectives to the thinking of host departments and at the same time are catalysts for change and innovation. All of these approaches are worthy and worthwhile and the Advisory Group recommends their advancement.

To move to the next, more progressive stage of development, an extended strategy is suggested. In this respect, a number of streams of planning are to be considered. Both formal and informal interaction between staff at teacher education departments must be further enhanced to ensure more formal peer review and annual quality audit. Short term to medium term strategic planning in departments is advocated as a means of redefining mission statements on overall departmental objectives. This process will assist in anticipating needs and preparing appropriate responses. Student input here will be important, particularly the contributions of postgraduate students who are at advanced stages of their work.

This process of ongoing evaluation can be of substantial benefit if the initiative is linked to a parallel enterprise in another institution. Availing of a more prolific prospect for insight and interaction with teacher education departments in other institutions internationally will prove of benefit. This approach will avoid the pitfall of introversion and the inter-cultural dynamic will provide impetus and confidence to explore and exchange in the pursuit of scholarship and professional practice models. Linking in a strategic alliance with one or more institutions renders staff exchange of a short duration more feasible and allows many issues - practical and other – to be analysed in wider and more instructive contexts. This might include exchange of portfolio work and a similar approach might be usefully adopted in the process of evidence-based learning and case studies.

The technology now exists to accommodate this kind of work. It is to be emphasised that the continuous professional development of teacher educators is not an issue of particular concern only to the Irish educational system. It is in fact commonly felt that this is an issue for many educational systems internationally though this is only coming to light recently in the research literature (Conle 2001, Corcoran 2000, Darling-Hammond 1996, Homesland and Tarrou 2001). Many systems are attempting beginnings on this front and opportunities for strategic alliances and interactive partnerships are, therefore, more readily available than they might otherwise be.

The guiding principles, as already stated, towards the development of a strategy for the continuous professional development of teacher educators will not differ hugely from those employed for the continuous professional development of teachers. One difference is to be noted however. Teachers have a certain expectation of teacher educators in regard to this development. Teachers will look to the teacher education departments for vision and leadership and in many instances for pragmatic servicing and support. To whom can teacher educators look with similar expectation?

Teacher education is the final compartment in the overall sector. They must look to themselves. They must in turn look to the teachers whose professional wisdom is not to be underestimated and they must look also across the professions, especially to those where mutual interests are shared.

In combination and on the basis of international strategic alliances it is possible to establish a research centre at one of the teacher education institutions to make provision for this development. This would allow for a more systematic approach and have available to it a

synergy of commitment which will both instruct and inspire. This institute or centre might well become a focus for international participation and support. It would seek to provide service to practical pragmatic concerns through short courses and workshops and seminar work. It would assist with induction to teacher education and provide for mentoring. It would be a major resource for teacher educators and would put the profession at the cutting edge of research innovation and best professional practice. It would allow for a variety of activity covering the strengths of learning and development in teacher educators. It would make provision for all of the interest, from short term updating services to advanced research and publication work. Arising from this endeavour it is suggested, the voice of teacher education would assume a position of greater strategic prominence within the overall system. The integrity and the validity of the profession, it is argued, would gain in many different positive ways.

The important concern to be addressed more appropriately here is the health and well being of the profession of teacher education. Traditionally the profession has depended in large measure on recruitment from the ranks of teachers. It is from this sector too that many associate and part-time teacher educators are drawn. If this seedbed of professional growth is undermined then teacher education will suffer accordingly. An institute or centre for the professional development of teacher educators would defend against any prospects of complacency and would share an implicit and explicit effect for the benefit of teaching and schooling as a whole. This is all the more true if teacher education moves now to a role which collaborates more coherently and cohesively with its natural partners, the schools and the teachers. Consequently, teacher education will be strengthened within the wider professional community and of necessity within the universities.

6.5   Educational Research

6.5.1   The Nature and Purpose of Research in Teacher Education

In the protection and promotion of the professional status of teaching and teacher education, research is a key issue. The vitality of the research mission is driven by the ongoing quest for knowledge and critical thought. Research in teaching and teacher education provides the opportunity for the construction of professional knowledge bases. It is important that it concentrates on the profession and the professional organisation. It is in this aspect that the research agenda must strike a strong correspondence with the needs of the professional environment regionally, nationally and internationally.

In establishing a framework for objectives for teacher education programmes in Chapter 4 the importance of research was highlighted. Given the emphasis which this report wished to attach to the research issue a more extensive consideration of policy and agenda is appropriate here.

6.5.2   Teacher Education Departments

Teacher education departments at the various institutions have devoted much expertise, energy and vision to research activities over the last two decades or so. This has been a significant achievement particularly when the obstacles to progress and major resource constraints are considered.

As already emphasised in the framework of objectives, education departments must be supported and encouraged to develop coherent educational research profiles. Research components must be incorporated into programmes of teacher education. Student teachers must have the opportunity to acquire research methodologies, engage in a research project and be provided with an opportunity to continue such work after graduation.

A research and enquiry orientated culture within teaching may be significant in growing a dynamic and learning education system. Education departments are encouraged to create learning communities of and for teachers, which embrace this philosophy.

6.6   Creating Teaching and Research Relationships

Research interests and literacies, which are developed at the level of initial teacher education, should be carefully nurtured to continue as a staple of the professional career. Teachers must not be given to understand that research is for others in the education system. Teachers must feel ownership in part of the research process and not be identified solely with implementation of research findings which have been poorly mediated and from which they feel isolated.

It is important to include continuous professional development and research within one unified framework. All continuous professional development should include a strong element of research. For too long there have been unnecessary demarcations between these two obviously integrated areas.

The ongoing pursuit of the portfolio studies and the extension of the reflective practitioner model in research activity, on the part of teachers, is identified as a key ingredient in this process.

As school plans are evolved and as policy concerning continuous professional development comes into sharper focus, research activities will generate new levels of interest. Schools will be challenged to identify their research needs and face the challenge of their own knowledge bases.

6.7   Partnerships

Partnerships can be a powerful mechanism for creating a thinking environment and transforming educational institutions. To be successful, a partnership must accommodate all of its members. Partnerships need to be responsive to developing needs, interests and concerns while holding steadfast to the guidelines and principles underpinning the goals of the partnership. The challenge for school-university partnerships is to continually develop ways by which they will include all members as active participants. They must provide appropriate and multiple opportunities for professional learning, growth and support to ensure that each member receives adequate support to be actively involved in moving the school reform agenda forward in collaboration and partnership with the university.

The relationship between the school and the teacher education department must be one of equality. It is formed to facilitate the bringing together of knowledgeable people to question,

discuss, solve problems and to access pertinent information. It accepts and welcomes that answers come from both group problem-solving and individual initiatives. The process of inquiry and open reflection is encouraged, valued and seen as a means of understanding and identifying what needs to change in the school. It facilitates the staff in seeing themselves as learners and as teachers. Consequently, the partnership nurtures a natural connection between the teacher education department and the teachers, in which mutual learning flourishes and the groundwork for reflection and identification of issues combine to make school renewal possible.

Recommendations

The Advisory Group recommends that:

- Provision be made for the professional development of teachers to meet various needs at various stages of their careers

- Flexible modes of accreditation and administration of continuous professional development be introduced

- Professional development initiatives be founded on higher award accreditation opportunities, where participation in all forms of professional development will be recognised, assessed and awarded through modular building blocks to the ultimate level of formal post-graduate awards

- School based collaborative research carried out by teachers in teams or groups and supported by teacher education departments is best suited as a model for continuous professional development

- The model of the reflective practitioner be further developed at the level of continuous professional development

- Teachers play an active role in their own continuous professional development

- Schools take a more proactive role in deciding the research topics most pressing and suited to their needs

- Schools be provided with a continuous professional development budget which can be used to acquire the support and expertise of the teacher education departments

- Teacher educators be resourced and supported in their continuous professional development

- Subject associations be supported in their role in professional development of teachers

Chapter 7
Information and Communication
Technologies in the Learning Environment

7.1   Introduction

Information and Communication Technologies (ICT) have emerged as a potent force affecting all aspects of society. Such transformation has a marked effect on education systems and in turn, the role of education is critical to adapting to the information society. Schools are charged with providing students with the best possible education to prepare them to live and work in this rapidly changing environment.

ICT literacy is a core element in an individual's personal, social and economic skills base. It is important in enhancing employment opportunity but also for overall personal effectiveness. The most important skill will be in the intelligent and effective use of these technologies in the workplace and in the home.

ICTs provide major opportunities for improving the effectiveness of education. To be successful however, they need to be accompanied by a rethinking of the learning process itself and the way in which education is organised. They help create opportunities for teachers to share resources and exchange ideas, provide access to world-wide information sources as well as being powerful teaching and learning tools. Technology alone is not the determining factor, it is what is done with the technology that counts and the teacher is the critical variable in this situation.

In 1998 the introduction of Schools IT 2000 and the establishment of the National Centre for Technology in Education (NCTE) provided a great impetus to the development of ICT in schools. Impressive targets were set and have been met for the provision of in-service education in ICT skills and applications as well as improving the availability of hardware and software in schools. Each target has been exceeded and a survey of schools conducted in Summer 2000 reports that 75% of teachers in respondent schools have availed of training in ICT through the Schools IT 2000 Teaching Skills Initiative (TSI) (NCTE 2000).

The survey identified that almost all schools now have Internet access, compared to 25% in 1998. In post primary schools the majority have ISDN line access (69%) and have Internet access served to multiple machines (62%). This is a substantial change from 1998 when 5.3% of post primary schools reported ISDN access. Post primary schools reported their monthly time on-line averaged 43 hours per month, or over two hours per day.

7.2   New ways of Teaching and Learning

Modern concepts of learning emphasise students' responsibility for their own learning, accommodate a variety of learning styles and promote an active role in seeking and using

information. ICT has the power to enhance the learning process, particularly in developing basic skills of literacy, numeracy, science, problem-solving and team work.

The environment created with these technologies assists and respects individual styles and pace of learning and provides enhanced learning opportunities for a broader range of pupils. The support of pupils with learning disabilities demonstrates the potential success in terms of the use of ICTs.

The basic skills to find and manage information and to communicate are key requirements in the information society. In addition to the traditional reading and writing abilities, the ability to locate, identify and evaluate information, is required.

In addition to knowing how to manage and communicate information in their own field, teachers must also be able to teach methods of locating, evaluating and disseminating information so as to enable pupils to work independently. Teachers should have the ability to use technology for open and flexible learning and be able to modify and develop materials.

Successful learning depends in large part on the learning environment created by teachers. The innovation in school experience which has resulted from the NCTE initiatives, in particular in TSI and the Schools Integration Project (SIP), demonstrates that teachers inter alia need to be supported with professional development opportunities in order to integrate technology into their daily learning and everyday classroom learning activities.

The changes in the learning environment resulting from the successful application of ICT can be conceptualised as follows:

Passive	◀ ▶	**Active**
Real	◀ ▶	**Virtual**
Static	◀ ▶	**Dynamic**
Site	◀ ▶	**Network**
Single media	◀ ▶	**Multimedia**
Isolated	◀ ▶	**Collaborative**

When used effectively, ICT provides the opportunity to create a more dynamic, collaborative learning environment where students can work both individually and in groups on authentic learning assignments. This contrasts with didactic learning environments where students tend to be more passive and work in isolation.

7.3   The Changing Role of the Teacher

7.3.1   Teacher as Participant and Guide

Teachers must adapt to participating in the learning experience in a new role as learned guides, assisting and leading the learning process.

Possibly the most difficult task the teacher will have to undertake in the information age is to support the pupil in being aware of their learning processes. New skills of thinking must be acquired and knowledge must be personally constructed, with the teacher as guide playing a

very active role. The teacher will have to resist the temptation to impart knowledge to the learner as in a conventional classroom, instead allowing the learner to acquire the knowledge in an open inquiry process.

7.3.2   Teacher as Planner and Manager

As a facilitator of knowledge, conventional classroom teaching must change and teachers must be willing to take risks in their curriculum planning. Planning the learning experience will take on new dimensions, ranging from the organisation of hardware and related resources, integration of software into the classroom, to the support of active learning. Teachers therefore have to be innovative in their use of ICT and undertake detailed analysis of how they might be integrated within the classroom.

These roles are united in the concept of teacher as conductor of learning, integrating pupils, teacher, machine and information.

7.4   Teacher Education Programmes

It is critical that ICT is integrated into the entire education experience of the student teacher throughout the programme. ICT in teacher education programmes will have to move away from the model where the computer is the prime focus of study to the model that sees the computer as a tool in supporting and enhancing students' knowledge and skills in relation to teaching processes and learning outcomes.

The challenge for teachers is to design learning experiences so that what pupils learn is a deep understanding of the subject content rather than a surface understanding with the added ability to analyse and synthesise data and information and at the same time promote the development of creative thinking and good communication skills. Schools are required to prepare pupils to be adaptive learners and to focus attention on independent learning and thinking as important educational goals. To support these goals, teachers need to be able to participate actively in the construction of their own knowledge and skills before they will realise the power of the technology in supporting learner initiative and creativity. Student teachers must be exposed to these experiences during their own learning and subscribe to the constructivist approach to learning. Teacher educators must change their approaches to accommodate the changing roles of teachers in ICT – supported learning environments. Student teachers must themselves experience the powerful formative force of ICT in supporting teaching and learning before they will be willing to commit themselves to integrating it into their own teaching and learning.

This Report recommends that the medium of ICT be employed in delivering the learning environment of teacher education. Structured knowledge bases should be provided on-line and the narrative of teacher education can begin to be compiled as a resource. It will not be sufficient to provide an isolated module on ICT but it should be mandatory to fully educate student teachers on the comprehensive integration of ICT into the teaching of all subjects. In order to assure that all aspects of teaching, planning and management shall form an integrated process connected seamlessly through ICT media, all teaching notes and schemes of work should be created electronically.

The following foci are presented as essential to teacher education programmes and can serve as a blueprint for how the teacher education curriculum incorporates ICT:

- Skills with particular software applications both generic and particular
- Locate, evaluate and utilise Internet information sources
- Integration of ICT into existing curricula
- Integration of ICT, including appropriate software packages, into school operational management
- ICT related changes in the curricula
- Changes in the teacher's role in the context of ICT in the classroom
- Changes in the manager's role in the context of ICT in the classroom
- Underpinning theories of education relating to constructivist approaches to learning
- Evaluation of ICT developments within teaching and learning
- Development of databases of reflective practice and school based experiences by classroom teachers

7.5   Continuous Professional Development in ICT

While professional development may be regarded as a priority in many curricular areas the evolving nature of ICT and its value as a topic and a medium suggest that continuing professional development has a unique place in the development of ICT in Education. The Schools ICT Survey (NCTE 2000) identifies continuing professional development as the top priority in ICT considerations for 91% of teachers. This finding should not be regarded as surprising in view of the existing unparalleled record of participation and achievement by teachers in the NCTE professional development initiatives. Record numbers of these teachers have also participated in further professional development initiatives to the level of postgraduate award.

This Report recognises that in order to service the particular needs of continuing professional development of ICT in Education, it is essential that the issue be given special focus. The role of the NCTE needs to be further extended, with autonomy of resourcing, to ensure multi-annual funding for schools and teacher education departments to further develop ICT.

Computer networking, including online learning, will enable new and innovative forms of professional development to be provided which could have only been provided at very high cost, if at all, through the conventional model of face-to-face attendance at courses. Opportunities now exist for peer interaction, joint classroom activities with other teachers and projects involving different groups of pupils that are geographically and maybe culturally dispersed, inexperienced teachers linked with more experienced teachers during the induction phase of their professional development.

Developments in information and communications technology can be used to provide additional support for teachers at the school site and all stages of their professional careers. Software tools are available to guide teachers through a structured process of planning, trial, reflection and record keeping in all aspects of their classroom practice. The record of this work can be used for assessment and for additional accreditation particularly in the accreditation of prior learning. Such records can be used to compile a database of professional experience and

reflection thus providing a valuable archive for subsequent use.

This data can be integrated through communication technologies such as chat rooms, discussion groups and e-mail to allow teachers share their experience and endeavours with colleagues near and far and with the teacher education departments. These exchanges can be organised to support teachers in refining their thinking and developing their skills.

7.6   Course Delivery at a Distance

Professional development services are becoming available to the teacher on a 'just –in –time' basis, when the teacher wants them and in a location best suited to the teacher. If teacher education institutions are to fulfil their brief in relation to teacher development, they will need to be major agents in the provision of professional development at a distance. Teacher educators need to be in a leadership position in driving such applications.

7.7   IT Literacies

The potential of ICT outlined here is dependent on equipping student teachers, current teachers and teacher educators with effective IT skills so that they can optimise these developments. In addition it is only when they see ICT being effectively exploited in their initial learning experience that student teachers will have the fluency to fully apply them in their own teaching.

7.8   Infrastructural Requirements

By international standards, Ireland has achieved remarkable reductions in the pupil to computer ratio but in order that student teachers may successfully integrate ICT applications in their learning and subsequent teaching a number of infrastructural issues need to be addressed in the context of ICT facilities in Irish schools.

Broadband inter-connectivity between schools is required in order to avail of multimedia resources on the Internet. This Report recommends that a collaborative approach between public and private partners in the education and technology sectors be initiated with a view to extending existing and proposed broadband initiatives to include schools, as a matter of priority. It is recommended that the DES examine the feasibility of extending the HEA backbone to include all primary and post-primary schools, thereby providing a seamless broadband service to all education sectors in Europe and in the US.

High-speed access to online resources in all schools will be a vital ingredient of meaningful change in the learning environment. In providing such access it is vital that all schools are provided with high-speed access, irrespective of their location, thus avoiding the creation of a digital divide.

In addition, funding should be allocated on a competitive tender basis to higher education institutions to promote and assist the development of appropriate high quality education software for Irish schools.

Teachers should be guaranteed access to appropriate ICT hardware and incentives should be provided so that it is possible for teachers to obtain personal computers for professional use.

7.9   ICT and Teacher Educators

The lack of experience of teacher educators in either learning with or teaching with ICT is itself a cause for concern. It appears that the educational use of ICT as instructional tools by teacher educators is sometimes limited, notwithstanding the evident word processing and email competencies.

In order to address this impediment it is proposed that significant investment be made in re-education and also in infrastructure in institutions providing teacher education in order to ensure that student teachers are educated in an environment of the most modern technology. This will ensure that these student teacher experiences will be based on electronic application so that tomorrow's teachers will learn by the experience of doing.

Recommendations

This report recommends that:

- ICT be used to extend the learning environment of teacher education at all stages

- Student teachers be educated on the comprehensive integration of ICT into the teaching of all subjects

- Student teachers be exposed to the positive formative force of ICT in their own learning

- Student teachers be facilitated so that all teaching notes, schemes of work, etc. can be created electronically

- Databases of the narrative of teacher experience be created

- The role of the NCTE be extended to ensure multi-annual funding for schools and teacher education departments to further develop ICT in education.

- Teacher education departments need to become major players in the provision of professional development at a distance using the new technologies

- The provision of broadband facilities to schools be supported by collaborative efforts involving public and private partners

- The feasibility of extending the HEANET to all primary and post-primary schools be examined

- Funding be provided on a competitive basis to higher education institutions, in partnership with second level schools, in the development of high quality educational software for Irish schools

- Teacher education partnerships strive to upskill teacher educators with ICT literacies

Chapter 8
Access, System Design, Selection and Recruitment

8.1   Recruitment, Supply, Demand and Access

Teaching, comparatively speaking, remains a popular professional option for many school leavers and graduates in Ireland. Moreover, the academic quality of the students coming into teaching is of high calibre. On closer analysis however, it emerges that shortages in some curricular areas do exist and in addition, a considerable number of teachers drift from the profession for a variety of reasons. It is of utmost importance that the current relative strength of the recruitment to teaching tradition be protected and developed. This is not a time for complacency - teaching has faltered and it is proving difficult to renew.

Much of what is considered by this Report and all of its recommendations are calculated to support a quality teaching profession. The issues of recruitment, access, supply and demand are, it will be agreed, fundamental cornerstones in the overall objective.

Retrospection provides little by way of a perspective on issues concerning recruitment. Such has been the popularity of this profession as a career option that the need to promote recruitment or to promote teaching was never apparent. All of that may change and it will be of strategic benefit to be well prepared.

Literature on teaching, pointing out the challenges involved and the professional satisfaction to be derived from the career is now needed. Routes to the profession and pathways to promotion within the profession should be highlighted. The urgency of maintaining a high quality teaching profession should at all times be emphasised. This responsibility can be shared between the teacher education departments, who already share a common application policy, and the Department of Education and Science must also provide support and assist in dissemination. As the majority of the cost of teachers' salaries is met by the State it is therefore the most central of the stakeholders. These somewhat obvious suggestions require to be made emphatically because this development does not have strongly established precedent. Teaching must be promoted as an attractive career in the career options market. The future welfare of the educational system depends largely on the number and quality of those now entering the profession. Consequently, it is important that research is carried out to establish what the perceptions of teaching are by prospective students in order to highlight the attractive features of a career in teaching. A more positive image of the profession may be more realistically expected based on research findings.

8.2   Selection Processes of Entrants to Teacher Education Courses

The quality of qualified teachers depends on the quality of intake into initial teacher education courses as well as on the content, structure and organisation of those courses. Central to the quality of intake is the system used to select new entrants.

The Advisory Group considers that selection systems should meet the criteria of fairness, transparency and efficiency. Teachers are now entering an increasingly diverse and rapidly changing environment. Significant changes have occurred in recent years in respect of curricula, pupil intake and the role of teachers, and these changes are likely to accelerate. In addition, continuing economic growth will most likely constrict labour supply to education. Accordingly, the selection system must be sufficiently flexible to ensure diversity of entrants.

8.2.1 Operation of Present Selection Arrangements

In general, entry to concurrent teacher education courses is determined on the same basis as most other undergraduate courses. School-leaver applicants apply through the CAO system and are allocated points for their Leaving Certificate results. Places are allocated to applicants with the highest points totals. The use of interviews for school-leaver applicants has, in common with other undergraduate courses, been phased out to a large extent.

A small proportion of places is reserved in most courses for mature entrants, generally those aged at least 23. As in the case of other courses, the treatment of mature applicants varies between institutions and may involve an interview.

Until recently, the education departments operated separate and distinct selection systems for entry to the Higher Diploma. Each applicant was assessed taking account of a range of factors including nature of undergraduate qualification, level of award and final year subjects. A proportion of candidates would be called for interview to assess factors such as suitability and motivation.

The existence of an entry quota prompted candidates to apply to many, or perhaps all of the education departments. This resulted in serious problems such as:
- Inconsistency of treatment between institutions
- Difficulty in estimating the true level of demand for places
- Multiple interviews for candidates

In view of these difficulties, the four NUI education departments introduced a new common selection system to operate for the 1999 intake. Trinity College currently retains its separate arrangements. The common system was designed by a joint working party including representatives from the education departments, other offices in the institutions concerned, the NUI and the CAO. It is administered by a limited company, HDEAC, based in Galway.

The common system permits candidates to apply for the H.Dip courses in each of the participating education departments using a single application form. Applicants are awarded points in accordance with set scales under the following headings:
- Undergraduate and primary degree performance
- Additional postgraduate qualifications
- Additional relevant qualifications
- Teaching experience

Advocates of the new common system of entry to the H.Dip in the NUI colleges argue that it has a number of key strengths including:

- Improved transparency, impartiality and efficiency
- Reduced workload and costs for applicants and colleges
- Greater certainty – applicants know the criteria in advance
- Creation of database on applicants

However, critics of the new system might identify some weaknesses:
- Lack of flexibility – the selection criteria are too rigid
- Absence of assessment of suitability
- Impact of points approach on applicant profile – the allocation of points is heavily weighted in favour of academic qualifications as opposed to practical experience. Points available for primary degree performance range between 26 (40% -50%) and 50 (70%+) while a holder of a second primary degree plus postgraduate degree may gain up to a further 11 points. In contrast, teaching experience attracts a maximum of only 5 points (experience of at least 450 hours)

As the common system has only been in place for a short time, it is not yet possible to evaluate its success or its impact on the profile of new entrants. The Advisory Group considers that the strengths of the common system are compelling and outweigh the concerns about suitability. It also notes that equivalent criticisms may be levelled against selection arrangements for higher education generally – a system which, in the view of the Points Commission, should be retained. However, it would be concerned that previous teaching experience should have a more appropriate status in terms of points allocated. In this regard, it welcomes the education departments' commitment to keep the new approach under continual review and to evaluate the system as more data becomes available.

8.3   *Desirable Characteristics of a Selection System*

Selection arrangements for entry to third level education generally were analysed in detail by the Commission on the Points System (Ireland 1998). Chapter 3 of the Commission's final report sets out a number of desirable characteristics which should be replicated in selection systems. Some of these were specifically required by the terms of reference – transparency, impartiality and efficiency – while the Commission was also required to take account of the impact of selection arrangements on specific issues such as representation of disadvantaged and mature students. Other desirable characteristics identified in the report include predictive validity and credibility.

The Advisory Group considers that selection arrangements for entry to teacher education programmes should, as far as possible, accord with the characteristics highlighted by the Commission. Transparency and impartiality are essential to ensure confidence in selection systems, while at the same time the process should not place excessive burdens on applicants or on the institutions. In the context of teacher education, predictive validity should not be assessed in a narrow sense such as academic performance, but should include the potential and suitability of applicants for a career in teaching. Credibility will be influenced by progress as regards the other characteristics.

A distinction between the concurrent and consecutive models of entry should be drawn at this point. The Advisory Group considers that entry to the concurrent courses, which are run at undergraduate level, should continue to be determined in line with the arrangements ratified by the Points Commission – i.e. through the existing points system.

A further distinction is required to take account of the need for greater participation in teacher education by mature and disadvantaged applicants. The Advisory Group recognises that teachers are now entering an increasingly diverse and rapidly changing professional environment. The teaching profession must have the capacity to adapt to this challenge. While the nature and content of initial and continuing teacher education will be crucial in this regard, the Advisory Group also considers it important to ensure that the intake to teacher education courses takes account of increasing diversity at school level. Accordingly, it is highly desirable to ensure greater participation in teacher education by students from diverse backgrounds, including those who are disadvantaged, students with special needs and candidates from ethnic minorities.

In the same vein, it would be desirable to ensure a reasonable gender balance in the intake. However, the Advisory Group recognises that the solution in respect of gender balance lies primarily in enhancing the attractiveness of teaching as a career.

In the context of growing skills shortages, the teaching profession must compete with other sectors to attract sufficient numbers of candidates. However, while the numbers of applicants still comfortably exceed the intake quotas, continuing economic growth may place further pressures on potential supply.

For reasons of inclusivity, it becomes even more important to ensure participation in teacher education by candidates of mature years and by those from diverse backgrounds. Entry routes must be sufficiently multiple to permit adequate representation from these groups. Particular attention should be paid to multiple routes of entry for those with work experience in technological areas and other subjects where shortages are occurring.

It will be necessary then to ensure that literature suitably devised to mediate this message is available for dissemination. It might be of merit also to provide for a stand-alone module on teaching and learning to be available at undergraduate level for students on programmes other than education. This would not involve a teaching placement. It will be for institutional decision whether or not this module is for credit. This module might provide for strategic recruitment and allow for a positive encounter with issues of education and schooling. It might serve to stimulate an interest in teaching which might otherwise remain dormant. In terms of the selection criteria currently employed by the National University of Ireland Higher Diploma in Education Programme it might be included as a factor. It might be a worthy replacement for the 'previous teaching experience' criterion. Of advantage here, would be the fact that it would be designed, offered and evaluated by professional teacher educators and not left to chance opportunity.

The analysis of issues concerning supply of and demand for teachers highlighted the impact of subject-specific and location-related shortages. As far as practicable, having regard to the need to preserve transparency and fairness and to promote inclusivity, selection arrangements for the consecutive model should be sufficiently multiple to ensure adequate intake of candidates

presenting subjects for which demand is high. In the absence of firm quotas, college are providing courses which help to address these issues.

The Advisory Group recognises the right of each education department to maintain a separate system of assessment, some of which include an interview. The various modes of access provide for diversity in the system. The case for publishing clear and quantifiable selection criteria is strong. Applicants need some advance indicator of the probability of selection, while the publication of criteria and marking schemes would allay concerns regarding the potential for subjectivity. As universities generally are looking at the issue of access, education departments should also be considering various types of diverse access routes.

The Advisory Group agrees with the Points Commission recommendations that quotas should be established for mature entrants and candidates from disadvantaged backgrounds. Separate selection mechanisms will be required for such candidates and these should be designed in accordance with the principles outlined in the Commission's report. In this context, it will be important to ensure adequate information for all applicants and feedback for those who are unsuccessful, while at the same time ensuring transparency and impartiality in the arrangements.

Separate sub-quotas for subjects or subject combinations, which are in short supply, had been envisaged by the HEA working group. The mechanism for selection of candidates within these quotas requires further analysis.

8.4   Selection Systems

The pattern of selection of students for teacher education programmes varies considerably world -wide. Entrance is mainly based on the results of end of post primary or degree examinations. However, most countries provide and encourage more varied routes of entry to encourage applicants from a wider range of cultures, backgrounds and ages. In Germany there is a policy of 'open entry' while in Scandinavian countries there is high competition for entry. In other countries there is a shortage of applicants and in England and the Netherlands, for example, the respective Departments of Education make specific efforts to attract applicants for teacher education programmes (Coolahan, 2000).

8.5   Supply of and Demand for Second Level Teachers: An Analysis of System Needs

The question of supply and demand is relevant to this Group's work for a number of reasons:
*   Intake levels into the various teacher education programmes will influence the overall quality of graduates and the capacity of institutions to provide quality education programmes
*   The imposition of an intake quota may affect behaviour patterns of potential applicants
*   The distribution of an aggregate quota between institutions will have an impact on their efficiency and possibly their effectiveness.

8.6   Rationale for Intake Quotas

Intake quotas for teacher education programmes are set by the Minister for Education and Science on the advice of the Higher Education Authority (HEA). The HEA's advice in the case of the HDE is informed by analysis undertaken by working groups representative of the HEA, the Department and the institutions. These analyses focus primarily on estimating demand for newly qualified teachers and deriving corresponding intake levels.

Underlying the quota mechanism are two principal objectives: to ensure a reasonable balance between supply of newly qualified teachers and to ensure efficient and effective use of public funds.

There has been a pattern of decline in HDE graduates obtaining permanent posts in recent years. In response to these trends and pursuant to a Government decision in 1990, the Department of Education and Science requested the HEA to consider whether the number of education departments in universities should be reduced. The HEA recommended the retention of the five departments, but with the introduction of a quota system. Further analysis of supply and demand was undertaken and the quota was put into effect in the 1993/94 academic year.

More recently, the quota system has been revised to increase the output of graduates with subjects where shortages are perceived to exist. This approach resulted in an aggregate increase in the intake quota from 800 to 900 in 1998/99 and a further increase to 960 in 2000/01. The additional places were to be set-aside for candidates with specific subjects: Chemistry, Irish, Italian, Physics, Religion and Spanish. A further 40 places were created in 1998/99 for the HDE through the medium of Irish in NUI (G).

8.7   State Intervention

Supporters of the quota approach would argue that the State has a duty to intervene to correct oversupply of graduates in order to ensure value for public money.

In an efficient system, the supply of graduates should approximate to the demand for teachers with some surplus to ensure choice and quality and as a safeguard against unforeseen events. The presence of a significant surplus indicates inefficiency, which should be corrected, allowing transfers of funds saved to areas of greater need.

In its examination of the issue of 'high points courses', the final report of the Commission on the Points System gave support to the quota approach:

> "The Commission accepts that in the case of some professional courses, especially those where the unit cost to the state is very high, there is a need to ensure that there are not too many students taking courses relative to the employment opportunities available".

Opponents of the quota approach would argue that the market is the most effective means of regulating supply and that the capacity of institutions should be the sole constraint on supply.

Advocates of the free market approach consider that not only is State intervention inefficient, but it can also result in unintended side effects. Limiting entry may make courses more attractive. There may also be grounds to assert that the quota approach affects the quality of intake. Where high entry points are required, the high points applicants may not in every case be those most suited to that career. Others who might be more suitable could be excluded.

Finally, the risks associated with labour planning in general and with the quota system in particular are frequently highlighted.

8.8   The Effectiveness of the Quota System

Forecasting is an inexact science and it is therefore necessary to err on the side of caution. Accurate figures can be obtained on many key variables – age profile of teachers, numbers of retirements, resignations, career breaks and projected pupil numbers. However, other elements cannot be predicted with such certainty. These include changes in the behaviour patterns of new graduates in response to changes in the quota, or the impact of broader labour market conditions. Quota restrictions therefore risk being significantly out of step with labour market needs and to avoid risks of shortages they may be set at a level which will not lead to gains in efficiency.

Aggregate quota figures may mask regional and or subject imbalances. A survey of school principals undertaken in 1997 for the HEA working group showed substantial variation in recruitment difficulties by location and subject. The problems were most acute in border counties, with more than 80% of school principals who recruited in these areas reporting difficulty in obtaining teaching staff, although it must be acknowledged that the numbers of principals in those areas are very small.

Location in rural areas was specifically referred to in additional comments by some principals as being a significant obstacle to attracting suitable staff, and that the problem was particularly acute for substitute posts. However, despite the evident regional fluctuation, analysis revealed no evidence of an urban/rural divide. The aggregate percentages having difficulty in both urban and rural areas were each within one percent of the national average.

It is clear that there are serious difficulties in the availability of teachers in some subject areas. On the other hand, there are a number of other subjects where a surplus of qualified graduates exists, e.g. English, History, Economics and French. It is evident that:

•   School location and the subjects required will have a substantial impact on the level of difficulty encountered in recruitment

•   Anecdotal evidence alone is an insufficient basis for determining the extent of unmet demand for teachers

•   Increasing the aggregate quota is an inefficient means of tackling regional and subject variations

A quota system was introduced for subject areas where understaffing was evident. However, the quota system does not take account of the free movement of workers and mutual recognition of qualifications of citizens of the European Union which adds to the available supply of teachers.

8.9   Difficulties Inherent in Quota Approach

While accurate information may be obtained on many variables, not all factors are easily quantified. Fixing a quota too low may lead to serious consequences. Conversely, the implications of fixing a quota at too high a level are not as serious. Accordingly, there is a need to err on the side of caution in making estimates.

Minor adjustments to the quota should be avoided and analyses should have regard to longer-term needs. Changes in response to short-term trends result in serious inconvenience for the teacher education departments in terms of recruitment and tenure, planning and capacity utilisation. Short-term expansion and contraction of education departments and colleges of education may be extremely disruptive. Although adjustments to the HDE quota may yield results quickly, the impact of adjustments to concurrent course intake is necessarily slower since it takes at least 3-4 years for the change to feed through to graduate level. Accordingly, it may be preferable to run temporary surpluses for a short period rather than to increase and reduce quotas within a short period.

As indicated above, the imposition of a quota system risks side effects in terms of increasing demand and affecting the quality of candidates. Those unsuited or disinterested in a teaching career may be attracted by the perceived prestige of a limited entry course, while others more interested in and suited to the profession may be deterred from applying by the impact of increased numbers of applications on entry levels.

8.10   Estimating Intake Quotas

A brief analysis of factors involved in forecasting teacher numbers/required intake levels is useful to illustrate the complexity of the process. Supply and demand factors are key here.

8.10.1 Demand

Pupil enrolments constitute the primary driver of demand for teachers. Enrolments themselves must be forecast, and the Department of Education and Science produces extensive pupil projections based on a wide range of variables including CSO birth-rate projections, migration assumptions and age-specific retention rates.

Other factors, which must be taken into account include:
* Assumed pupil teacher ratios
* Enrolments by programme type
* Take up of job-sharing
* Career breaks – departures and returns
* Resignations
* Retirements, including early retirements
* Departures for other reasons, such as secondments, in-career development, international schools, etc.

8.10.2 Supply

Supply is driven principally by the output of the teacher education departments and colleges. However, the gross output must be reduced to take into account those who do not take up a teaching career or who are siphoned off into other careers. Additional sources of supply include:

- Applicants from other EU member states
- Teachers returning to the labour force after an extended period of absence
- Under-employed teachers

Analysis has shown that the potential pool of supply may at times be substantial. However, it is likely that this is no longer the case, in the context of current economic and employment growth. Assumptions must also be made concerning this pool's behaviour.

8.11   Dynamic Model

Forecasters often make 'no change' assumptions. However, the factors involved in modelling teacher supply and demand are interactive. A change in one factor is likely to lead to a change in another. Equally, environmental factors such as the state of the economy will likely influence future trends, but it is extremely difficult to anticipate fully rates of economic change.

8.11.1 Data Sources

It is possible to acquire reasonably reliable data on some variables such as the predicted rate of retirements and on output from colleges. However, data sources for other variables are not readily available and can be accessed only through surveys such as those undertaken for the HEA-led working group.

These surveys provide a snapshot at a particular point and their value diminishes with time. In order to ensure accurate forecasts, periodic snapshots are required. Alternatively, a teacher database may provide readily available and up-to-date information on teacher numbers and qualifications. The database will also simplify the process of estimating departures from teaching. The importance of regular review is also highlighted by the Points Commission report: *"while the Commission recognises …. that it can be very difficult to project … the … needs of a specific profession, it nevertheless considers that there should be a regular review of places on courses with capped numbers".*

There are arguments for and against the quota approach. Support for the approach is provided by the final report of the Commission on the Points System. In addition the Teaching Council Act provides that the Council shall advise the Minister in relation to teacher supply (section 7(2)(h)(iii). However, there are some doubts concerning the value and effectiveness of the quota system. These concern:

- Availability of those who wish to study and qualify as a teacher in another member state
- Lack of readily available and accurate data on some variables
- The possibility of unintended side effects of the quota approach

8.12 Recruitment, Selection, Access

There are no established reasons to believe that the shortages in recruitment to teaching, which are being reported from other countries, will also arise in Ireland. However, it would be culpably complacent to rule out that prospect completely. Consequently, a more secure framework to safeguard the supply of teachers could be usefully considered.

Particular attention should be paid to the issue of flexibility. At present routes to teaching continue to run along traditional parallel lines, particularly between primary level and post-primary level. Models of teacher education, which are more generic in terms of the overall qualification, with diverse sub-streams accommodating individual specific qualifications, are now being considered in a number of countries (Buckberger 1994, Galton and Moon 1994). A more flexible system which recognises prior experiential learning as criteria for access should be introduced. This is an approach that needs to be kept in view over the longer term. Consideration needs to be given to enabling students to enter teacher education programmes with significant experiential learning appropriate to specialist teaching areas. The example of the 'trade entry' route for teachers of Engineering and Construction Studies was particularly effective. Applicants should be credited with the appropriate experience leading to a shortened overall programme of study.

The Advisory Group is of the view that the Irish education system would benefit enormously in terms of flexibility from having a pool of available teachers who are qualified to teach at both primary and post-primary level. The availability of a common pool of teachers qualified diversely but compositely would safeguard somewhat against shortages, and provide for greater amenability. This 'dual-qualification' of teachers is an issue that should be seriously considered by teacher education departments for both beginning teachers and experienced teachers involved in continuous professional development.

At present, for example, the Graduate Diploma in Education of eighteen months duration qualifies graduates to teach in primary schools. This qualification was introduced specifically to address shortages in the primary sector. This additive approach is an example of an alternative route for entrance to primary teacher education and vice versa.

Attention is also drawn to the fact that graduates who already hold a Higher Diploma in Education or concurrent education degree are not allowed any derogation or exemption from the demands of the Graduate Diploma programme. Flexibility here should be encouraged. Particular note is to be taken of the need to provide programmes of reasonable duration to teachers who wish to make the transition from, and to, all of the levels of schooling. With ongoing support for continuous professional development of the variety outlined in Chapters 5 and 6 of this report these transitional programmes will be of benefit to teacher supply and they will provide for a healthy form of exchange and mobility as well.

Recommendations

The Advisory Group recommends that:

- Ongoing and periodic reviews of quotas be undertaken in line with the Points Commission recommendation

- Further work be undertaken to ensure that data on which estimates may be based is up-to-date and reliable. Initially this may concern periodic surveys and subsequently the development of a teacher database

- Education departments consider the provision of diverse routes of access to teacher education programmes

- The selection criteria for the NUI Higher Diploma in Education programmes be extended to accommodate a greater diversity of entrants

- Account be taken of a wider range of subjects in the primary degree of entrants in order to encompass ongoing curricular changes

- Places on teacher education programmes should take account of the subject needs in the system

- Special orientation programmes be provided for returnees to teaching

- Career pathways be established and special orientation programmes be provided for mature students looking for a career change who wish to enrol in teacher education programmes

- Teacher education departments give consideration to establishing programmes that would result in teachers who are qualified to teach at both primary and post-primary level. This should be considered for both beginning teachers and for experienced teachers involved in continuous professional development

- Consideration be given to the availability of a module on teaching and learning at undergraduate level

Chapter 9
Towards Implementation

Implementation

The Advisory Group believes that in order to implement many of the recommendations of this report, either a major research project or a number of smaller projects should be commissioned to pilot the introduction of a reformed model of teacher education. This approach should be well resourced to meet the requirements and to ensure maximum quality results. Invitations to tender should be issued for these research projects in accordance with HEA procedures . In the case of the second option of smaller projects being preferred, these should concentrate on topics to include:

- School based studies
- Mentoring
- Induction
- Continuous professional development
- Reflective practice

The development and maintenance of a knowledge base to support good strategic planning and practice in teacher education and related areas is an urgent requirement. Reliable models for projecting future needs, changing patterns of development, participation and provision should be put in place. The absence of such a facility makes it difficult to plan in a forward–looking sense.

Allied to this there is a need to initiate and maintain ongoing research into teacher education nationally and internationally. This has been a somewhat neglected area and one which is deserving of more concentrated attention. To maintain teacher education at a quality level a national centre for research in teacher education should be established and fully resourced. It should seek to form strategic alliances with other such centres elsewhere in the world. This national centre would serve to progress Ireland's strong reputation in teacher education and would attract the worthy participation of scholars of teacher education from other cultures.

It is clear that many teacher education departments are under resourced. There is an over dependence on part-time staff and particularly part-time supervisors of teaching practice. In some instances part-time staff out number full-time staff at a ratio of 3:1 or even higher. Teacher education departments cannot continue to provide a quality service under these conditions.

In a number of departments, teaching practice supervision and assessment is far too heavily dependent on part-time input, which can be difficult to co-ordinate and standardise. To allow the core of the programme's work to be under resourced in this way is unacceptable. Dedicated funding needs to be invested in the recruitment of staff in order to support teacher education more effectively. The greatest deficiencies are in the subject areas and recruitment must take account of the important need to have well qualified specialists appointed to these.

The recommendations for a mentoring system, if implemented, will provide for a good combination of expertise. Mentoring will require strong investment for both training purposes and ongoing support and mentors will need to be provided for by means of some material resource, with consequent implications for funding.

Teacher education departments are strongly committed to a wide range of endeavours and they offer a generous response to many teaching and schooling needs. In an attempt to face confidently into the future challenges, departments are encouraged to further develop a small number of research areas. It will not be possible to continue to offer all that will be required in every department. Specialisation would allow for a deepening of initiative in particular areas of teacher education and in research associated with those areas and improved co-ordination between teacher education departments will ensure that the findings of such research are shared. The research centre referred to earlier will provide a good forum for the dissemination and discussion of these findings. This policy is already evident in teacher education and the Advisory Group recommends that it continue to be enhanced. More complete resourcing will encourage a greater degree of discrimination between the activities that departments take on.

Improved resourcing will also be needed to put in place a strategy for the application of the latest developments in information technology and in order to improve capacity of the departments to provide for programmes at a distance, particularly in the area of continuous professional development. In this regard, the positions of the NCTE, the Education Centres, and programmes organised through the In-Career Development Unit should be strengthened to increase their contribution to this area.

Teacher education programmes are composite by nature and are dependent on a varied range of expertise. Current models of financing and resourcing of teacher education programmes are not always clearly designed to respond to needs. Accordingly, it is recommended that finance and resource models be re-designed and applied in a more needs-responsive manner.

Further means of support for teachers as they engage in continuous professional development should be achieved by an extension of taxation reform.

In the case of postgraduate teacher education programmes, fees should be remitted.

Student teachers should be paid for hours they are required to teach at the part-time rate.

The Advisory Group recognises that the Teaching Council with its progressive provisions will have strong and important implications for many of the recommendations and ambitions of this Report. Therefore it is recommended that the Council be made operative without delay.

Bibliography

Adams, N. G., Shea, C.M., Liston, D.D. and Deever; D. 1997. *Learning To Teach, A Critical Approach to Field Experiences.* New Jersey : Lawrence Erlbaum Associates

Ahl, A. and Nilsson, I. 2000. "Teacher Education for the New Century in Sweden" *European Journal of Teacher Education.* Vol 23, No.2:117-125

Aldrich, R. and Crook, D. 1998. "Education as a University Subject in England: An Historical Interpretation" *Paedagogica Historica, Supplementary Series III:121-138.*

Aldrich, R. 1996. *Education for the Nation.* London: Cassell,

Anderson, L.W. ed., 1995. *International Encyclopaedia of Teacher Education.* New York : Pergamon.

Angus, L. ed., 1993. *Education, Inequality & Social Identity.* London : Falmer Press

Ball, C. 1990. *More Means Different.* London : Royal Society of Arts.

Ballengar, C. 1999. *Teaching Other Peoples Children – Literacy and Learning in a Bilingual Classroom.* New York : Teachers College Press.

Beernaert, Y., Van Dijk, H. and Sander, T.H. eds., 1992. "The European Dimension in Teacher Education" *Proceedings of the ATEE Annual Conference.*

Berres, S., Ferguson, D., Knoblock, P., Woods, C., eds., 1996. *Creating Tomorrow's Schools Today – Stories of Inclusion, Change, and Renewal.* New York : Teachers College Press.

Beyer, L. and Liston, D. 1996. *Curriculum in Conflict – Social Visions, Educational Agendas, and Progressive School Reform.* New York : Teachers College Press.

Bigum, C. 1997. "Teachers and Computers: In Control or Being controlled ?" *Australian Journal of Education.* Vol.41 No.3: 247-61.

Blake, D. 1996. "Change in Teacher Education: Interpreting and Experiencing New professional Roles." *European Journal of Teacher Education.* Vol. 19, No 1:19-34.

Blond, J. and Webb, K. 1995 "Teacher Knowledge : The Relationship Between Caring and Knowing." *Teaching and Teacher Education.* Vol.11, No 6 : 611-625.

Bone, T.R. and McCall, J. 1990. *Teacher Education in Europe: The Challenges Ahead.* Glasgow.

Borko, H., and Putman, R. 1996. "Learning to Teach." In D. Berliner and R. Calfee eds. *Handbook of Educational Psychology.* New York: Macmillan.

Borko, H. 1986. "Clinical Teacher Education: The Induction Years." In J.V. Hofmann and S.A. Edwards eds. *Handbook of Educational Psychology.* New York Macmillan.

Brinkman, F. and van Rens, E.M.M., 2000. "Student Teachers' Research Skills as Experienced in their Educational Training." *European Journal of Teacher Education.* Vol.22, No. 1 :115-126.

Britzman D.P. 1991 *Practice makes Practice: A Critical Study of learning To Teach.* Albany, N.Y. : State University of New York Press

Brooker, R. 1998. "Improving the Assessment of Practice Teaching: A Criteria and Standards Framework." *Assessment and Evaluation in Higher Education.* Vol 23, No 1 :5-24.

Buckberger, F. 1994. "Teacher Education in Europe- Diversity Versus Uniformity" in Galton, M and Moon, B. eds., *Handbook of Teacher Training in Europe : Issues and Trends. London* : Fulton.

Buckberger, F. ed., 1992. *Guide to the Institutions of Teacher Education in Europe.* Brussels : ATEE.

Bullough, R. 1995. *Becoming a Student of Teaching : Methodologies for Exploring Self and School.* New York : Garland Publishing.

Burke, A. and Coolahan, J. 1995. "Teacher Education and The Teaching Profession in Ireland in an Era of Educational Change." In Michaelsson, P.E. *Winter University Proceedings.* ATEE, Dalarna University.

Burnaford, G., Fisher, J. and Hobson; D. 1977. *Teachers doing Research, Practical Possibilities.* New Jersey : Lawrence Erlbaum Associates.

Byrne, K.R. and Garafola, M. eds., 1998. Proceedings of the 23rd. ATEE Annual Conference. *Teacher Education in the 21st. Century.* Limerick : Mary Immaculate College of Education.

Calderhead, J. 1997. "Towards a Research Base for the Development of Teacher Education in Europe." *Scottish Educational Review.* Vol.29, No.1 : 3-9.

Carini, P. 1986. "Building For Children's Strengths" Journal of Education. Vol.168:13-24.

Carrington, B. and Tomlin, R. 2000. "Towards a More Inclusive Profession-Teacher Recruitment and Ethnicity." *European Journal of Education.* Vol. 23, No. 2:139-157.

Carter, K. 1990. "Teacher' Knowledge and Learning to Teach" In W.R. Houston ed. *Handbook of Research on Teacher Education.* New York: Macmillan.

Caruso, J.J. 1998. "What Cooperating Teacher Case Studies Reveal About Their Phases of Development as Supervisors of Student Teachers." *European Journal of Teacher Education.* Vol.21, No.1:119-132.

Clandinin, D., Davies, J.A., Hogan, P. and Kennard, B. 1995. *Learning to Teach Teaching to Learn, Stories of Collaboration in Teacher Education.* New York : Teachers College Press,

Advisory Group on **Post-Primary Teacher Education**

Clay, J. and George, R 2000 "Intercultural Education: a Code of Practice for the twenty-first century." *European Journal of Education.* Vol. 23, No. 2:203-211.

Clinard, L. and McCorkel, A. 1998. "What Mentoring Does for Mentors : A Cross Cultural Perspective." *European Journal of Teacher Education.* Vol.21 No.9:91-108.

Coolahan, J. 2000. "Teacher Education In Ireland and Western Europe: A Comparative Analysis." In *Educating the Educators.* Proceedings of ESAI Conference, April 2000. pp.7-30

Coolahan, J. 1995. "Teacher Education and the Teaching Profession in the Western European Region." In Michaelsson, P.E., ed., op. cit

Coolahan, J. ed., 1994. *Report on the National Education Convention.* Dublin :The National Education Convention Secretariat.

Conle, C. 2001. "The Rationality of Narrative Inquiry in Research and Professional Development." *European Journal of Teacher Education.* Vol.24 No.1 : 21-33.

Corcoran, T.B.; 2000. "Helping Teachers Teach Well: Transforming Professional Development." *Transforming professional Development for Teachers: A Guide for State Policymakers.:* Washington :National Governors' Association.

Corno, L, and Snow, R.E. 1986. "Adapting Teaching to Individual Differences Among Learners." In M. Wittrock ed. *Handbook of Research on Teaching.* New York: Macmillan.

Cuban, L. 1993. 2nd.ed., *How Teachers Taught, Constancy and Change in American Classrooms 1890-1990.* New York: Teachers College Press.

Darling-Hammond, L. 2000. "Teacher Quality and Student Achievement: A Review of State Policy Evidence." 8(1), pp1-45

Darling-Hammond, L. and McLaughlin, M.W. 1996. "Policies That Support Professional Development in an Era of Reform" in Milber, W and NcLaughlin, I.O. eds., Chapter 16, *Teacher Learning New Policies, New Practices.* Columbia: Columbia University.

Darling-Hammond, L. 1999. "Education Teachers for the Next Century : Rethinking Practice and Policy." In G.A. Griffin ed. *The Education of Teachers, the Ninety-eighth Yearbook of the National Society for the Study of Education. Part 1* Chicago: National Society for the Study of Education.

Davies, B. and Ellison, L. 1992. *School Development Planning: Issues in School Planning,* Harlow: Longman.

Dreikurs, R., Grunwald, B. and Pepper; F.C. 1998. 2nd. ed. *Maintaining Sanity in the Classroom, Classroom Management Techniques.* London: Taylor and Francis.

Drudy, S. and Oldham, E. 2000. *Educating the Educators.* Proceedings of the ESAI Conference Dublin, April 2000.

Duckworth, E. 1997. *Teacher to Teacher – Learning from Each Other.* New York: Teachers College Press.

Egan, O., ed., 1997. *Minority Ethnic Groups in Higher Education in Ireland.* Proceedings of Higher Education Equality Unit Conference. St. Patrick's College, Maynooth, 27 September, 1996.

Epstein D. 1993 *Changing Classroom Cultures: Anti-racism, Politics and Schools.* Stoke on Trent: Trentham Books

European Commission. 1995. *Teaching and Learning: Towards the Learning Society.* Brussels: European Commission.

Featherstone, H. 1993. "Learning From the First Years of Classroom Teaching." *Teachers College Record.* 95, 2, 93-112.

Feiman-Nemser, S. 1998. "Teachers as Teacher Educators" *European Journal of Teacher Education.* Vol.21 No.1:63-74.

Finn, C. E. Jr, and Rebarber, T. 1992. *Education Reform in the '90s'.* New York: Macmillan.

Fletcher, S. 1998. "Attaining Self-actualisation Through Mentoring." *European Journal of Teacher Education.* Vol. 21 No. 1:109-118.

Fraser, J. 1998. *Teacher to Teacher, A guidebook for Effective Mentoring.* Portsmouth: Heinemann,

Fulton, K. 1993. "Teaching Matters: the Role of Technology in Education." *Education Technology Review.* Fall/Winter: 5-10.

Galton, M. and Moon, B. eds., 1994. *Handbook of Teacher Education in Europe.* London: Fulton.

Gold, Y. 1996. "Beginning Teacher Support: Attrition Mentoring and Inclusion." In J. Sikula, ed., *Handbook of Research on Teacher Education.* New York: Macmillan.

Graham, P. Hudson-Ross, S., Adkins, C., McWhorter, P. and McDuffie S.J., eds., 1999. *Teacher Mentor – A Dialogue for Collaborative Learning.* New York: Teachers College Press.

Graves, N.J. 1985. 'Teacher Education in Adversity', University of London Institute of Education, Special Professional Lecture

Griffin, G.A. 1999. *The Education of Teachers: Ninety-Eighth Yearbook of the National Society of Education. Part 1.* Chicago: National Society of Education.

Grossman, P. 1990. *The Making of A Teacher: Teacher Knowledge and Teacher Education.* New York: Teacher College Press.

Grundy, S. and Stanley, G. 1995. "Restructuring Teacher Education." *Australian Journal of Teacher Education.* Vol. 20 No. 1:45-51.

Hansen, D. 1995. *The Call to Teach.* New York: Teachers College Press.

Hasley, A.H. ed. 1997. *Education: Culture, Economy and Society.* Oxford : Oxford University Press.

Higher Education Authority 1970. *Report on Teacher Education.* Higher Education Authority Dublin.

Hollins, E.R. and Oliver; E.L. 1999. *Pathways to Success in School, Culturally Responsive Teaching.* New Jersey : Lawrence Erlbaum Associates.

Holmes Group. 1995. *Tomorrow's Schools of Education: A Report of the Holmes Group.* East Lansing, MI : The Holmes Group.

Holmesland, I and Tarrou, A.H. 2001. " Institutionalising Research in Teacher Education." *European Journal of Teacher Education.* Vol. 24 No. 1:67-76.

Howe, K. and Miramontes, O. 1992. *The Ethics of Special Education.* New York: Teachers College Press.

Hutling-Austin, L. 1990. "Teacher Induction Programmes and Internships." In R.W Houston, ed., *Handbook of Research on Teacher Education.* New York: Macmillan.

Ireland 1999. *National Development Plan 2000-2006.* Dublin: Stationery Office

Ireland 1998. *Commission on the Points System.* Dublin: Stationery Office.

Ireland. Department of Education and Science 1998. *Report on the Establishment of a Teaching Council.* Dublin: Stationery Office.

Ireland. Department of Education 1995. *Charting our Education Future, White Paper on Education.* Dublin: Stationery Office.

Ireland. Department of Education 1992. *Education for a Changing World, Green Paper on Education.* Dublin: Stationery Office.

Ireland. Department of Education 1984. *Report on Inservice Education.* Dublin: Stationery Office.

Ireland. Department of Education 1980. *White Paper on Educational Development.* Dublin: Stationery Office.

Ireland. Department of Education 1974. *Report of Planning Committee on the Establishment of a Chomhairle Mhuinteoireachta.* Dublin: Department of Education.

Ireland. Department of Education 1967. *Report of Commission on Higher Education.* Dublin: Stationery Office.

Ireland. Department of Education 1965. *Investment in Education.* Dublin: Stationery Office.

Irish National Teachers Organisation 1980. *The Professional Development of Teachers and Issues in In-service Education.* Dublin: Irish National Teachers' Organisation.

Jackson, P.W., 1986. *The Practice of Teaching.* New York: Teachers College Press,

Jones, M. 2000 "Becoming a Secondary Teacher in Germany." *European Journal of Teacher Education.* Vol. 23 No.2: 65-76.

Jong, J. de. and Brinkman, F. 1999. "Investigating Student Teachers Conception of How to Teach : International Network Studies from Science and mathematics Education." *European Journal of Teacher Education.* Vol.22 No.1 : 5-10.

Judge, H., Lemosse, M., Paine, L. and Sedlak, M. 1994. *The University and the Teachers: France, United States and England.* London : Triangle Books.

Judge, H. 1991. "Teacher Education and the Universities". *European Journal of Education.* Vol.14 No.3: 257-262.

Kansanen, P. 2000. *Discussions on some Educational Issues IX. Research Report 211.* Helsinki : Department of Teacher Education, University of Helsinki.

Kansanen, P. 1991. "Pedagogical Thinking: the Basic Problem of Teacher Education", *European Journal of Education.* Vol. 26, No. 3,

Kells, H.R. 1992. *Self-Regulation in Higher Education, A Multi-National Perspective on Collaborative Systems of Quality Assurance and Control.* Higher Education Policy Series 15, London :Jessica Kingsley Publishers.

Kenny M. 1996. *The Routes of Resistance: Travellers and Second Level Schooling.* Aldershot: Ashgate.

Kenny M. 1997 "Who are They, who are We?" in Crowley, E. and Mac Laughlin, J. (eds.) *Under the Belly of the Tiger: Class, Race, Identity and Culture in Global Ireland.* Dublin: Irish Reporter Press.

Killeavy, M. ed. 2000. *Toward 2010: Teacher education in Ireland over the next decade.* Dublin: Irish Federation of University Teachers.

Killeavy, M. 2001."The Professional Development of Teachers in the Republic of Ireland." *European Journal of Teacher Education,* Vol. 24, No 2

King, J.E., Hollins, E.R. and Hayman, W.C. 1997. *Preparing Teachers for Cultural Diversity.* New York :Teachers College Press.

Kogan, M. 1995. *Educational Research and Development: Trends, Issues and Challenges.* Paris : OECD.

Korthagen, F.A. 2000. "Linking Reflection and Technical Competence: the Logbook as an Instrument in Teacher Education." *European Journal of Teacher Education.* Vol.23 No. 2-3:191-208.

Kent, T.W. 1999. *Will Technology Really Change Education: from Blackboard to Web.* Thousand Oaks, California : Corwin Press.

Koster, B., Korthagan, F.A. and Wubbles, T. 1998. "Is There Anything Left for Us ? Functions of Co-operating Teachers and Teacher Educators." *European Journal of Teacher Education.* Vol.21 No. 1 : 75-90.

Leach, J. and Moon, B eds., 1999. *Learners and Pedagogy.* London:Routledge.

Levine, M. and Trachtman, R. 1997. *Making Professional Development Schools Work.* New York: Teachers College Press.

Lieberman, A. 1995. "Practices That Support Teacher Development, Transforming Conceptions of Professional Learning." *Phi Delta Kappan.* Vol.76 No.8:591-96.

Lunenberg, M., Snoek, M. and Sweetman, A. 2001. "Between Pragmatism and Legitimacy: Developments and Dilemmas in Teacher Education in theNetherlands. *European Journal of Teacher Education.* Vol.23 No.3:215-260.

Lunenberg, M. 2000. "New Qualifying Requirements for the Mentoring of Student Teachers in the Neatherlands." *European Journal of Teacher Education.* Vol.22 No. 2-3:159-172.

Lyons, N. 1998. *With Portfolio in Hand, Validating the New Teacher Professionalism.* New York : Teachers College Press.

McCall,J. and Mackey, R.M. eds. 1996. *Partnerships and Co-operation.* Proceedings of the 21st. ATEE Annual Conference. Glasgow: University of Strathclyde.

McLaughlin, M.W. and Oberman, I. eds. 1996. *Teacher Learning, New Policies, New Practices.* New York :Teachers College Press.

Massimiliano, T. and Bertolini, P. 2000 "Children at the Dawn of the Internet: Exploratory Research on Current and Potential Use at Home and in School." *European Journal of Education.* Vol. 23, No. 2

Mayer-Smith, J., Moon, B. and Wideen, M. 1994. "Learning to Teach: The Journeys and Entering Beliefs of Four Beginning Teachers." *Journal of Professional Studies.* Vol. 1 No.2: 11-25.

Merseth, K. K 1996. "Cases, Case Methods, and the Professional Development of Educators". In J. Sikula (ed.) *Handbook of Research on Teacher Education.* New York : Macmillan, 722-746.

Michaelsson, P.E. 1995. *Proceedings of the Winter University on Teacher Education in Europe.* Dalarna University :ATEE.

Miller, L. and O'Shea, C. 1996. "School-University Partnership, Getting Broader, Getting Deeper." In McLaughlin *Teacher Learning: New Policies, New Practices.* Columbia: Teachers College; Columbia University.

Miller, S. and Taylor, P. 1993. *The Teacher Education Curricula in the Member States of the European Community.* Brussels: ATEE.

Mittler, P. and Daunt, P. 1995. *Teacher Education for Special Needs in Europe.* London: Cassell.

Moon, B. 1996. "Practical Experience in Teacher Education : Charting A European Agenda" *European Journal of Teacher Education.* Vol. 19 No.3: 17-248.

Moran, A., Dallat, J. and Abbott, L. 2000. "Newly Qualified Teachers in Post-primary Schools in Northern Ireland: The Support |Provided for Their Needs and their Own Vision for Induction." *European Journal of Teacher Education.* Vol.22 No.2-3:173-190.

Morris, R. ed. 1997. *Mature Students in Higher Education.* Proceedings of Conference in Athlone Regional Technical College, 29 March 1996, Dublin: Higher Education Equality Unit:

Murray-Harvey, R. *et al.* 2000. "Under Stress: The Concerns and Coping Strategies of Teacher Education Students." *European Journal of Teacher Education.* Vol.19 No.3:217:248.

National Centre for Technology in Education (NCTE), 2000. *The Impact of Schools IT 2000.* Dublin: NCTE

National Commission on Teaching and America's Future 1996. *What Matters Most: Teaching for America's Future.* New York : National Commission on Teaching.

National Council for Curriculum and Assessment. *The Junior Cycle Review; 'Progress Report: Issues and Options for Development.* Dublin: NCCA

National Education Convention. 1993. *Report on the National Education Convention.* Dublin: National Education Convention Secretariat.

Nicholls, J. and Thorkildsen, T. 1995. *Reasons for Learning – Expanding the Conversation on Student-Teacher Collaboration.* New York: Teachers College Press.

OECD 1991. *Ireland (Reviews of National Policies for Education).* Paris: OECD

OECD 1998 *Keeping Ahead: In-service Training and Teacher Professional Development.* Paris: OECD.

Parker, S.1997. *Reflective Teaching in the Postmodern World, a Manifesto for Education in Postmodernity.* Buckingham : Open University Press

Pelton, J. 1991. "Technology and Education Friend or Foe?" *Research in Distance Education.* Vol.3 No.2:2-9.

Peretez, A.S. and Hoz, R. 1997 "The Residence Teaching Practicum Internship at Ben-Gurion University of the Negev." *Journal of Education for Teaching.* Vol.22 No.2 : 149-169.

Perry, R. 1997. *Teaching Practice – A Guide for Early Childhood Students.* London: Routledge.

Poetter, T.S. et.al. 1997. *Voices of Inquiry in Teacher Education.* New Jersey :Lawrence Erlbaum Associates.

Advisory Group on **Post-Primary Teacher Education**

Powel, A. 2000. "Realising the Value of Self-assessment: The Influence of the Business Excellence Model on Teacher Professionalism" *European Journal of Teacher Education.* Vol.23 No.1:37-48.

Reynolds, M. 1989. *Knowledge Bases for Beginning Teachers.* New York : Pergamon Press

Richardson, V.1999. "Teacher Education and the Construction of Meaning." In G.A. Griffin, ed. *The Education of Teachers. Ninety-eighth Yearbook of the National Society for the Study of Education, Part 1.* Chicago: National Society for the Study of Education.

Royal Society for the Arts. 1986. *Education for Capability.* Windsor: NFER-Nelson.
Sander, T. ed. 1994. *Current Changes and Challenges in European Teacher Education.* Brussels: ATEE.

Sandholtz, J.H., Ringstaff, C. and Dwyer, D.C. 1997. *Teaching With Technology: Creating Student-Centred Classrooms.* New York: Teacher College Press.

Schofield, J.W. 1995. *Computers and Classroom Culture.* Cambridge, UK: Cambridge University Press.

Schlinker, P. J. 1992."Predictions and Preferences for the Future of Teacher Education in Physical Education in Australian Universities." *Higher Education Research and Development,* Vol.11, N0 2

Schon, D.A. 1987. *Educating the Reflective Practitioner.* London: Jossey-Bass.

Scrimshaw, P. 1997. "Computers and the Teachers Role" In B. Somekh and N. Davies eds. *Using Information Technology Effectively in Teaching and Learning.* New York: Routledge.

Sears, J.T. and Marshall, J.D.1990. *Teaching and Thinking About Curriculum, Critical Inquiries.* New York: Teachers College Press.

Shavit, Y. and Blossfeld, H.P. 1993. *Persistent Inequality, Changing Educational Attainment in Thirteen Countries.* Boulder, Col.: Westview Press.

Shockley Bisplinghoff, B. and Allen;J. 1998. *Engaging Teachers, Creating Teaching and Researching Relationships.* Portsmouth: Heinemann,

Siraj-Blatchford, I. and Clarke, P.2000. *Supporting Identity, Diversity and Language in the Early Years.* Buckingham: Open University Press,

Skilbeck, M. 1992. "The Role of Research in Teacher Education." *European Journal of Teacher Education.* Vol.15, Nos 2,3

Spilkova, V. 2001. "Professional Development of Teachers and Student Teachers Through Reflection on Practice." *European Journal of Teacher Education.* Vol.24 No. 1:59-65.

Squires, G. 1990. *First Degree – The Undergraduate Curriculum.* Buckingham: SRHE and Open University Press.

Sultana, R.G. 1995. "Developing a Vision for Teacher Education programmes: A Values-Based Approach." *European Journal of Teacher Education.* Vol.18 No.2-3:215-219.

Swan, D. and Leyden, M. eds. 1996. *Teacher Induction.* Standing Committee of Teacher Unions and University Departments of Education.

Swan, D. and Leyden, M. eds. 1993. *Teacher Induction.* Standing Committee of Teacher Unions and University Departments of Education.

Tatel, E. 1996. "Improving Classroom Practice, Ways Experienced Teachers Change After Supervising Student Teachers." In M.W McLaughlin and I. Oberman. *Teacher Learning: New Policies, New Practices:* New York: Teachers College Press.

Tarozzi, M. and Bertolini, P. 2000. "Children at the Dawn of the Internet: Exploratory Research on Current and potential Use at Home and in School." *European Journal of Teacher Education.* Vol. 23 No. 2:189-201.

Tarrou, A.H. 2001 "What is Good Research for Teacher Education." *European Journal of Teacher Education.* Vol. 24 No. 2:7-8.

Tarrou, A.H., Opdal, L.R. and Homesland, I.S. "Improving Teacher Education through Evaluation: An Analysis of Four Norwegian Case Studies." *European Journal of Teacher Education.* Vol. 22 No. 2-1:135-158.

Tellez, K. and Cohen, M.D. 1996. "Preparing Teachers for Multicultural, Inner-City Classrooms, Grinding New Lenses." In McLaughlin, M.W. and Oberman, I. *Teacher Learning, New Policies, New Practices.* New York :Teachers College Press

Townsend, J. 1994. "Developments in School-Based Initial Teacher Training." E*uropean Journal of Teacher Education.* Vol.17 No.1-2: 49-53.

UNESCO 1996. Learning the Treasure Within, International Commission on Education for the Twenty-First Century. Paris: UNESCO.

Veenman, S., Bakermans, J., Franzen,Y. and Van Hoof, M. 1996. "Implementation Effects of a Pre-service Training Course for secondary Education Teachers." *Educational Studies.* Vol. 22 , No. 2.

Vonk, J.h.C. 1991. "Some Trends in the Professional Preparation of Teachers in Europe." In J. Coolahan, ed. *Teacher Education in the Nineties: Towards a New Coherence.* Limerick: ATEE.

Waterman, A. ed. 1997. *Service-Learning Applications from the Research.* New Jersey: Lawerence Erlbaum Associates.

Watson, B. and Ashton, E. 1997. *PRIORITIES, Grounds for Fresh Thinking in Education.* West Malvern: Moorhills.

Wilson, S., Shulman, L. and Richert, A. 1987. "150 Different Ways of Knowing: Representations of Knowledge in Teaching." In J. Calderhead ed. *Exploring Teachers Thinking.* London: Cassell.
Wolfe, C. 2001. *Learning and Teaching on the World Wide Web.* London : Academic Press.

Wubbles, T. 1992. "Taking Account of Student Teachers' Preconceptions." *Teaching and Teacher Education.* 8: 137-140.

Advisory Group on **Post-Primary Teacher Education**

Zabalzara Beraza, M.A. 1996. "Practical Experiences in Teacher Education: its Meaning, Value and Contributions" *European Journal of Teacher Education.* Vol.19 No.3:269-271.

Zanting, A., Verloop, N., Vermunt, J. Driel, J.H. Van. 1998 "Explicating Practical Knowledge: An Extension of Mentor Teachers' Roles". Vol. 21 No. 1:11-28.

Zeichner, K., Melnick, S. Gomez, M.L. eds. 1996. *Currents of Reform in Preservice Teacher Education.* New York: Teachers College Press.

Zeichner, K. and Liston; D.P. 1996 *Reflective Teaching, an Introduction.* New Jersey: Lawrence Erlbaum Associates.

NOTES

Advisory Group on **Post-Primary Teacher Education**