AN EVALUATIVE COMMENTARY BY
THE EDUCATION AND TRAINING INSPECTORATE

The language of learning[1]:

how student teachers learn, through initial teacher education, to develop and promote literacy and numeracy for all learners

May 2011

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1.   **INTRODUCTION**

1.1   Over the two academic years, 2008-10, the Education and Training Inspectorate (Inspectorate), together with the five Initial Teacher Education (ITE) providers in Northern Ireland, carried out a series of combined self-evaluations (by the providers) and inspections (by the Inspectorate) of the four Batchelor of Education, (B Ed) and the seven post-graduate (PGCE) programmes provided by St Mary's University College, Stranmillis University College, Queen's University, Belfast, the University of Ulster and the Open University, as part of the Department of Education's (DE) process of approving ITE programmes, as set out in its Circular 2010/03.[1]   While, in each case, the full programme was inspected, the series took as its focus literacy and numeracy across the school curriculum[2].

1.2   This paper is neither a summary nor a synthesis of the findings on the eleven programmes, which are a matter of public record.[3]   The purpose of this paper is to draw back and to survey the landscape of ITE, set in the context of the Inspectorate's knowledge, from school inspections, of the quality and needs of teaching and learning in schools. In that wider scope, the paper sets out to provide a critical, evaluative commentary raising issues which need to be addressed by all of the stakeholders so as to ensure that we have not only the best of existing practice, with respect to literacy and numeracy in particular, but the 'next[4]' practice which will enable the service to address the challenges which lie ahead.

1.3   The paper identifies four main outcomes the first three of which relate directly to ITE while the fourth looks ahead to the induction phase of teacher formation and provides a direction of enquiry for an evaluation on induction being conducted during 2010-11 by the Inspectorate.

1.4   Annex 1 of this report contains the definitions of literacy and numeracy relevant to this work. Annex 2 summarises the challenge to the initial teacher education community contained in the Northern Ireland Audit Office and the PriceWaterhouseCoopers reports and Annex 3 describes and discusses the expectations which are appropriate for student teachers at the initial teacher education stage.

2.   **THE EXTENT OF THE LITERACY AND NUMERACY CHALLENGE IN SCHOOLS**

2.1   The Chief Inspector's Report of 2008-10 notes that significant numbers of children fail to reach the levels of attainment in literacy and numeracy expected of their age and, in recent years, improvement is insignificant. One child in five leaves primary school, and the same proportion complete key stage 3, without the expected level of (functional) literacy and numeracy. At General Certificate of Secondary Education (GCSE) level, 59% of school pupils achieve at least five subjects at grades A*to C including both English and mathematics and almost two-fifths of students are not achieving a GCSE grade C or better in English and in mathematics. This means that almost 10,000 young people are leaving school without the qualifications needed to progress to further and higher education. Some 700 school pupils attain no qualifications and 3,000 have a very limited number.[5]

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[1] Initial Teacher Education, Approval of Programmes
http://www.deni.gov.uk/ite_approval_of_programmes_circular_-_english_version-2.pdf
[2] Annex IV gives a summary of the approach adopted.

[3] http://www.etini.gov.uk/index/inspection-reports/inspection-reports-higher-education-initial-teacher-education.htm
[4] http://www.innovationunit.org/next-practice/what-is-next-pratice.html
[5] School Performance Data 2009/10, DENI, May 2011.

2.1   The Chief Inspector (2008-2010) comments that this is an:

… issue that needs to be resolved in order to improve their life chances…..schools need to raise the achievements and standards of the learners with a strong focus on developing each learner's skills in literacy and numeracy.[6]

3.   FOUR OUTCOMES

3.1   The four main outcomes are summarised as follows and are discussed in more detail in section 5:

a)   All those **providing initial teacher education** now have a developed understanding of the (revised) Northern Ireland Curriculum (NIC) and have made successful adjustments to prepare student teachers to address the demands of the curriculum; although there is evidence of some variation with respect to aspects of numeracy in post-primary preparation.

b)   **Students teachers** have appropriate knowledge of the expectations and demands of the curriculum for the initial stage of their professional development. Furthermore, they are aware of the need to reflect on teaching and learning and, while many have begun to analyse critically their teaching performance, fewer extend this to evaluating its impact.

c)   **Between initial teacher education providers and the placement schools,** working relationships are good, and while these relationships are not formal in the contractual sense[7], the schools are very largely effective in supporting the students. There are weaknesses evident in some aspects of the students' personal literacy and numeracy. Schools generally express a willingness to be more closely involved with the provider to support the development of literacy and numeracy and the paper indicates how this may be effected.

d)   The findings outlined here also have implications for **the relationship between ITE providers and the curriculum advisory and support services (CASS)** in order to ensure that effective continuity and progression from the initial to the early teacher education stages is provided for each student, based on their individual portfolio of needs. There is a need to work with the teacher's employing school, to provide support for the teacher, as an individual, to continue to improve as an effective, adaptable practitioner, not only within, but beyond the classroom.

4.   COMMENTARY

4.1   Initial teacher education provision prepares student teachers well to plan and teach lessons which meet the requirements of the NIC and to begin to evaluate the effectiveness of their performance in the classroom. Only when students become beginning teachers, taking responsibility for classes of learners over extended periods, can they evaluate longer term improvements in literacy and numeracy. Schools themselves have an important role to play throughout induction and early professional development to help develop the beginning teachers in this regard.

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[6] Chief Inspector's Report 2008 – 2010

[7] With the exception of the Open University

4.2   Schools are at considerably different stages on a journey of reform in response to a range of policy imperatives from DE. Teachers, curriculum leaders, co-ordinators, heads of department/of key-stage and members of school leadership teams vary in their capacity to understand and implement important concepts related to the NIC, for example: the connection between aspects of learning; an inclusive pedagogy; development planning and evaluation leading to whole school improvement.

4.3   It is in this complex environment that ITE providers prepare student teachers to develop their capacity as reflective practitioners. The teaching challenge of ITE providers can be distinguished into two closely inter-linked needs, which are: to develop the professional knowledge and skills of all student teachers (of any subject or phase) for teaching and promoting literacy and numeracy; and, in turn, to help the student teachers improve the learners' literacy and numeracy capabilities in all areas of the curriculum.

SUPPORT FOR THE PERSONAL LITERACY AND NUMERACY OF THE STUDENTS

4.4   In the case of the B Ed programmes, it is evident that a GCSE grade C (or higher) is not a guarantee of a good level of personal competence in literacy or in numeracy for every student.

4.5   With regard to the personal literacy and numeracy abilities of the B Ed students, both University Colleges have in place procedures that allow the student, either through a written response, identification by the college or by self-nomination, to seek help and support if they have a lack of confidence or competence in mathematics or to develop further their literacy skills.

4.6   Initial teacher education providers ensure that all students have opportunities to improve their personal literacy skills, where necessary. In one College, for example, all students can avail of a Writing Workshop and through the considered help provided, can perfect their writing skills. Furthermore, it is important that the ITE lecturers continue to place an appropriate emphasis on promoting effective oral skills.

4.7   In both Colleges, the link between the students' own mathematical competence and their ability to teach numeracy effectively is considered significant, and as a result support is provided in numeracy, if required. In the best practice, this support and the progress the student makes, are monitored closely. There is a need to ensure that all ITE programmes have formal arrangements, in addition to students referring themselves for help, to identify and support those who lack confidence or competence in their own numeracy skills.

FINDINGS IN LITERACY

4.8   All of the ITE providers have appropriate and effective provision in place to ensure that student teachers have very good opportunities to develop the literacy aspect of General Teaching Council for Northern Ireland's (GTCNI) teaching competence 3 (i)[8]. The inspection reports on the B Ed and PGCE programmes outline strengths, many of which refer directly to the provision for literacy. In summary, in the best practice the student teachers in both phases are well prepared in relation to the expectations of the NIC. Students are given the opportunity to observe outstanding practice from lecturers; to work collectively with their peer group to develop their understanding of both theory and practice and to benefit from developing their knowledge and understanding of how drama and media education can contribute to teaching and learning in literacy. There is a need for all to understand, explicitly, the pedagogy through which literacy is promoted in all areas of the curriculum.

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[8] See Annex III for detail.

FINDINGS IN NUMERACY

4.9   All of the ITE providers have provision in place to ensure that student teachers have opportunities to achieve the numeracy dimension of GTCNI's teaching competence 3 (i). The inspection reports on the B Ed and PGCE programmes outline strengths and areas for improvement, many of which refer directly to the provision for numeracy.

4.10   In numeracy, both within and across the phases of teacher education, there are areas of best practice which could valuably be disseminated more widely. These include the opportunities for students to experience outstanding taught sessions which focus appropriately on the key stages of mathematical development and on the learners' outcomes; the opportunities to model and to begin to evaluate collectively their own practices, and to learn how to identify and use teaching approaches which are appropriate to meet the numeracy needs of all learners. It would be beneficial for all ITE providers to establish and develop a shared understanding of what numeracy entails[9], and evaluate the extent to which all of the students acquire the knowledge and understanding necessary to promote numeracy in their teaching.

FINDINGS IN IRISH-MEDIUM (IM) LITERACY AND NUMERACY

4.11   The provision for both literacy and numeracy in the medium of Irish in the B Ed and PGCE programmes is very good. Student teachers are prepared well and equipped with the skills and knowledge to promote literacy, bi-literacy, and numeracy across the curriculum in both phases.

4.12   The quality of feedback from the lecturers is varied but, in the best instances, the feedback alerted the students to recurring and very fundamental points and engaged the students in a process of reflection and, when possible, self-correction.

4.13   Irish-medium student teachers generally prepare thoroughly for their teaching and plan their teaching programmes well, taking into account both the needs of the learners under their care and their own linguistic shortcomings. They include key curricular terminology and formulate lists of differentiated, open and closed questions to ensure that they act as good language role models. When responding to unanticipated questions or spontaneous comments from the learners, however, a majority of the student teachers fail to maintain the same level of linguistic accuracy and control and use, at times, very inaccurate language containing basic errors.

SCHOOL/ITE PARTNERSHIP

4.14   In order to continue the very good start made with initiatives[10] such as serial days, mixed methods seminars, the mathematics in science project at Queen's University, the school-based project at the University of Ulster, the viva at Stranmillis University College and the school partnership conference at St Mary's University College, the ITE providers need to learn from each other and strengthen their links with partner schools.

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[9] Annex III

[10] See the individual inspection reports on www.etini.gov.uk for details

4.15   There are effective, and at times innovative, working relationships between the providers and schools which, in the best practice, make an outstanding contribution to help enable the student teachers, so that their competence and skills progress accordingly, in the context and through the experience of taking on the short term responsibility for groups of learners. All teachers need to be aware of their crucial role in developing the student as an effective practitioner, not only in the classroom, but in the wider context of whole-school development and improvement.

4.16   It is important that all schools recognise and contribute accordingly to the pedagogic development of the students.

4.17   In the context of the changes and expectations discussed in Annexes 2 and 3, and in order to ensure that student teachers are familiar with planning for progression in the teaching and learning of numeracy and literacy, and are able to employ an appropriately wide range of effective teaching and learning strategies, the ITE providers need to develop further their partnership with schools focusing on numeracy and literacy teaching and its co-ordination. In the best practice, ITE providers encourage the student teachers to meet with the relevant numeracy and literacy coordinators during schools placement and begin to evaluate the school's respective policies and strategies. Consequently, the student teachers can begin to understand the nature and application of a coherent programme to address the needs of individual children, and their different learning needs, and to plan for and ensure progression in their learning over a sustained period of time.

4.18   In the induction year, the beginning teachers need to be able to build, in their specific contexts, on their initial experience and understanding of how to develop the learners' skills in literacy and numeracy.

4.19   Therefore it will be important to find practical ways, such as through bridging assignments and other means, to continue and build upon the work begun by each student to facilitate better links between their learning at the initial stage and the focus of the induction assignments in literacy and numeracy to sustain professional formation at Masters Level.

4.20   During the induction and Early Professional Development (EPD) phase it is important that the development started during school placement is extended to strengthen the students' pedagogical skills for developing levels of literacy and numeracy which meet the needs of all of the learners inclusively.

4.21   It is not helpful that the Teacher Education Partnership has fallen in abeyance and that, in the absence of ESA being established, the proposed Professional Teacher Education Committee has not yet been set up.

5.   SUMMARY OF OUTCOMES

*a)   All those **providing initial teacher education** have a developed understanding of the (revised) Northern Ireland Curriculum (NIC) and have made successful adjustments to prepare student teachers to address the demands of the curriculum; although there is evidence of some variation with respect to aspects of numeracy in post-primary preparation. (See paragraphs 4.7 – 4.12)*

5.1   Initial teacher educators are now playing a key role in preparing students to address the challenges of raising standards in literacy and numeracy through effective teaching in schools. The providers are aware of the need to ensure that the content, focus and methodologies of their programmes reflect and contribute directly to DE's priorities and respond to the Inspectorate's findings in relation to best practice. The curriculum has been

evaluated and reviewed to ensure that a renewed emphasis and extended time have been afforded to the primacy of literacy and numeracy; the ITE programmes, which range from good to outstanding in their quality[11], now reflect this need. It is important that the students have, not only the relevant subject knowledge, understanding and skills, but that they also appreciate the pedagogical approaches needed to promote a positive disposition towards mathematics amongst all learners. Many students demonstrate the ability to reflect critically on the structure and demands of the revised curriculum; it will be important to develop this approach across all aspects of the programmes.

> **b)   Students teachers** *have appropriate knowledge of the expectations and demands of the curriculum for the initial stage of their professional development. Furthermore, they aware of the need to reflect on teaching and learning and, while many have begun to analyse critically their teaching performance, fewer extend this to evaluating its impact. (See paragraphs 4.0 – 4.2)*

5.2   High calibre entrants are attracted to initial teacher education programmes in Northern Ireland. It is clear from the evidence of the inspection of the B Ed and PGCE programmes that student teachers are being given the right opportunities to develop their values, their subject knowledge and how to teach it, an understanding of how children learn, an opportunity to develop the pedagogical skills to engage and enthuse learners of all abilities, some opportunities to understand the social and cultural barriers to learning and how to overcome them, and the motivation to help improve literacy and numeracy for all of the learners. During their placement in schools the students are reflecting successfully on their teaching performance; they need also to reflect on how their lesson impacts on the learner. Improvements in literacy and numeracy outcomes for learners in all schools cannot be correlated in relation to the quality of entrants; success is not only the responsibility of initial education alone, but requires a coordinated approach through all stages of teacher support and development.

> **c)   Between initial teacher education providers and the placement schools,** *working relationships are good, and while these relationships are not formal in the contractual sense[12], the schools are very largely effective in supporting the students. There are weaknesses evident in some aspects of the students' personal literacy and numeracy. Schools generally express a willingness to be more closely involved with the provider to support the development of literacy and numeracy and the report indicates how this may be effected. (See paragraphs 4.3 – 4.6 and 4.13 - 4.16)*

5.3   Schools play an important role in providing support for teacher development with respect to literacy and numeracy. Both they, and the providers, express some concern about the poor spoken grammar of a few students and the lack of confidence of some in their personal numeracy. As a model for learners in schools, their constant attention to maintaining accuracy in their personal use of language is essential. However, in the terms used in the PWC report (Annex 2) the inspection findings confirm that, between ITE and school placement, there is "*an adequate focus on literacy and numeracy*" and, in the post-primary programmes, "*there is training in teaching literacy across the curriculum*". Furthermore, student teachers are *"provided with sufficient opportunity to gain experience in a range of high-quality practical settings".*

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[11] See the individual inspection reports on www.etini.gov.uk

[12] With the exception of the Open University

*d)   The findings outlined here have implications for **the relationship between ITE providers and the curriculum advisory and support services (CASS)** in order to ensure that effective continuity and progression from the initial, to the early teacher education stages, is provided for each student, based on their individual portfolio of needs. There is a need to provide support for the teacher, as an individual, to continue to improve as an effective, adaptable practitioner, not only within, but beyond the classroom. (See paragraphs 4.17 – 4.20)*

5.4   With respect to their knowledge of subject, their understanding of pedagogy and how to promote and develop literacy and numeracy, a good start is being made by the student teachers. However, that foundation needs to be built upon and extended, based on the needs of each individual beginning teacher in respect to their competences. This should be the predominant design principle for early teacher education (induction and EPD) provision. Student and beginning teachers need continued help to shift the focus of their reflective practice from the effectiveness of their teaching practice to the achievement of the realistic learning outcomes for each learner, including the development of the learners' literacy and numeracy. Furthermore, based on their starting point identified in their personal portfolio or e-portfolio, a beginning teacher must continue to develop their theoretical and practical understanding of how to develop the literacy and numeracy of learners: which is what we refer to as promoting 'the language of learning'.

5.5   Finally, the continuing uncertainty over the establishment of the Education and Skills Authority (ESA), the references in the Teacher Education Review Consultation report to the expected role of ESA, the importance of coherence and continuity to ensure progression of the development of competent, reflective teachers, all point to the need for steps to be taken by the Department to establish the partnership relationship on a more formal and more effective operational footing.

DEFINITION OF THE TERMS LITERACY AND NUMERACY

Literacy, as defined in DE's strategy[13], is the ability to read and use written information, and to write appropriately and legibly, taking account of different purposes, contexts, conventions and audiences. It requires the development of an integrated approach to the acquisition of talking, listening, reading and writing skills across the curriculum; knowledge that allows a speaker, writer and reader to use language appropriate to different social situations; formal and informal language across all areas of social interaction; and, the ability to read, understand and use information in multiple formats and platforms, including traditional print and on-screen material.

Furthermore, it is essential that the students ensure, in their personal literacy, that they model the conventions of Standard English and are able to distinguish and use an appropriate register in spoken and written English when the context demands it, and especially when teaching in the classroom. It is essential that the student teachers continue to build on their personal literacy and act as literate role models for learners. Furthermore, the role of the adult within early years education is vital in developing and extending the children's communication and language development. There is a strong correlation within the pre-school sector between the level of the overall quality of the provision and the level of the staff's knowledge, skill and professional expertise.

The strategy defines **Numeracy** as *the ability to apply appropriate mathematical skills in familiar and unfamiliar contexts*, and elaborates further by listing key aspects that are developed in becoming fully numerate, namely: an understanding of key mathematical concepts and their inter-connectedness; reasoning and problem-solving skills; the proficient and appropriate use of methods and procedures (formal and informal, mental and written); and, an active participation in the exploration of mathematical ideas and models. In early years education, concepts are developed naturally through the daily routines of the pre-school day and it is important that staff use early mathematical language as an integral and natural part of their interaction with the children.

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[13] Count, Read: Succeed. A strategy to improve outcomes in literacy and numeracy. March 2011, Department of Education.

THE NATURE OF THE CHALLENGE TO THE PROVIDERS OF INITIAL TEACHER EDUCATION

In the context of challenge to schools outlined in paragraph 2 of this paper, the provision made to address literacy and numeracy has come under critical scrutiny. In 2006, the Northern Ireland Audit Office (NIAO) published a report entitled *Improving Literacy and Numeracy in School* which stated that, despite substantial investments by DE in literacy and numeracy, particularly since 1998, substantial literacy and numeracy challenges remain.

When analysing the findings of the Audit Office report, the Department of Education commissioned PricewaterhouseCoopers LLP (PwC) to undertake two related studies into literacy and numeracy in NI. The composite PwC research briefing stated that:

> *Concerns were raised about the lack of weight given to teaching literacy and numeracy in Initial Teacher Training (ITT) (sic), particularly for those planning to teach in post-primary schools, and whether ITT prepared teachers adequately for the classroom. Several participants suggested that there should be greater cohesion between ITT providers and the future development of the Strategies[14].*

The PwC briefing went on to recommend that there needed to be a focus on literacy and numeracy, particularly at the post-primary level, that trainees (sic) should be provided with sufficient opportunity to gain experience in a range of high-quality practical settings, and host schools for Newly Qualified Teachers should provide suitable learning.

The ITE providers were critical of the methodology of the study on which the concerns about literacy and numeracy in initial teacher education were based, and rejected them. Furthermore, the outcome of this Inspectorate study (paragraph 6.3) found an adequate focus on literacy and numeracy in ITE provision across the curriculum with student teachers being provided with sufficient opportunity to gain experience in a range of high-quality practical school settings.

A subsequent House of Commons Committee of Public Accounts stated in 2007, in respect to provision made here, that:

> *Teacher quality is an important catalyst for improvement in literacy and numeracy attainment levels. We consider it important, therefore, that the Department's review of the Strategy satisfies itself that the training provided to teachers ensures that they develop a thorough understanding of the relevant literacy and numeracy initiatives and are committed to them as a way of achieving improvement[15].*

The Committee on Public Accounts noted that the Department of Education had linked possible improvements in literacy and numeracy to the implementation of the revised Northern Ireland Curriculum. In this context, the Chief Inspector's Report (2006-2008) recommended that:

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[14] Literacy and Numeracy of Pupils In Northern Ireland: Research briefing. PriceWaterhouseCoopers, 2006

[15] Improving literacy and numeracy in schools (Northern Ireland) House of Commons, Committee of Public Accounts. 2007

Initial teacher education needs to place a greater emphasis on improving the teachers' skills to meet the challenges of the revised curriculum, the planned move away from academic selection and the implementation of the Entitlement Framework. More emphasis is also needed on enhancing the skills needed to meet the additional learning and pastoral needs of children and young people set out in this report.

It is clear that there are high expectations of initial teacher education. For example, the Department's strategy on literacy and numeracy [16] published in March 2011, states that:

DE expects the providers of initial teacher education, early professional development and continuing professional development to provide teachers with up to-date information and promote the development of effective skills in raising standards in literacy and numeracy.

The strategy expects the statutory education bodies to continue to work collaboratively with the ITE providers to ensure that:

a. *ITE courses deliver the most up-to-date information and promote effective pedagogies in relation to literacy and numeracy to all students;*

b. *all students on teaching courses understand how to identify, as early as possible, underachievement in literacy and numeracy and the key interventions that can be made; and*

c. *teaching practice exposes students to best practice in the teaching of literacy and numeracy.*

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[16] Count, Read: Succeed. A strategy to improve outcomes in literacy and numeracy.   March 2011, Department of Education.

THE EXPECTATIONS ON A STUDENT TEACHER AT THE INITIAL TEACHER EDUCATION STAGE

At the heart of the NIC lies an explicit emphasis on the development of skills and capabilities for life-long learning and for contributing effectively to society. These whole curriculum skills and capabilities, centered around communication, using mathematics and using ICT are expected to be embedded and infused by teachers throughout the revised NIC at each key stage such that learners have opportunities to acquire, develop and demonstrate these skills in all areas of the curriculum.[17]

The General Teaching Council's (GTCNI) teaching competence[18] 3(i) relating to the professional knowledge and understanding of a teacher states that:

Teachers will have developed a knowledge and understanding of the learning area/subject(s) they teach, including the centrality of strategies and initiatives to improve, literacy, numeracy and thinking skills, keeping curricular, subject and pedagogical knowledge up-to-date through reflection, self-study and collaboration with colleagues.

In the ITE stage, it is expected that the student teacher will:

Have a detailed knowledge and understanding of the learning area/subject(s) taught, including the centrality of strategies and initiatives to improve literacy, numeracy and thinking skills to all areas of learning.

There is a need for teacher formation to be understood as a continuing and continuous process through initial, induction and early professional development. Continuing competence development is the responsibility of all partners: the HEI ITE providers; the ELB CASS officers; the teachers in placement and employing schools and the Department. GTCNI's statement sums it up well:

Council has sought to emphasise that the acquisition of competence is very much related to context and phase, whether this be initial teacher education, induction, early professional development or beyond into career-long continuing professional development…(through a)… necessary widening and deepening of experience related to classroom and the whole-school context in which teachers work. However, (we) also emphasise the growing collective responsibilities inherent in the development of professional communities of practice, within which the individual's growing professional competence is situated. The Council takes the view that it is within these wider professional communities that school improvement is promoted and sustained.

It is essential that student teachers build on the numeracy they demonstrate at recruitment to become competent and confident users of mathematics within their profession, not least because the effective use of data is central to the Department's school improvement policy[19].

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[17] http://www.nicurriculum.org.uk/key_stages_1_and_2/skills_and_capabilities/
[18] *Teaching: the Reflective Profession,* General Teaching Council, Northern Ireland, 2004
[19] *Every School a Good School: a strategy for school improvement*, DE, Bangor, April 2009

Furthermore, GTCNI's teaching competence 26[20] states that:

> *Teachers will assess the levels of pupils' attainment against relevant benchmarking data and understand the relationship between pupil assessment and target setting.*

The Department's circular 2010/03[21] sets out the requirement that entrants must have achieved a standard equivalent to a Grade C or higher in the GCSE examinations in English and in mathematics. In PGCE programmes (as well as in B Ed programmes) the demand for places on the programmes is so high as to ensure that the PGCE students have a good honours degree in their main subject, and, in both the PGCE and the B Ed programmes, the students recruited are academically able, demonstrate generally a high quality in their written assignments and engage confidently with children and adults.

LITERACY

For learners in the primary phase, the conventions and rudiments of English need to be taught in a context which is related to the child's world, understanding and interests. The child's literacy and learning skills are then further developed in the other areas of learning. Effective learning cannot take place when children have limited language preventing them from making sense of the learning (for example, by thinking, predicting, questioning and evaluating). Teachers of all subjects and phases are, in effect, promoters of literacy effected by inclusive pedagogy where talking, listening, reading and writing are all part of the tools and language of effective learning. Evidence based on inspection findings indicates that, while the overall provision for pre-school education has much strength, too many children commence their pre-school year demonstrating delays and difficulties with aspects of their development and learning with a majority displaying speech or language difficulties. These children, often identified by pre-school staff as having language difficulties or a developmental delay, may struggle throughout their education or are at risk of having special educational needs formally identified at a later stage.

With regard to understanding the concept of phonics and other structured approaches to decoding and the teaching of early reading skills, it is appropriate that student teachers are aware of the rudiments of a range of basic approaches, gaining enough understanding to allow them to fit in consistently with the placement school's approach to the teaching of reading. It is be important that during any school experience placement that the student is well enough briefed on the literacy strategy and approach to learning support, so as not to contradict the school's policy and practice. It would be appropriate for teachers to co-teach with the student teachers, modelling the local scheme and teaching approach. Consequently, the student teacher can benefit from critically appraising the shared teaching experience.

It is neither appropriate, nor necessary, for the student teachers to be taught the detail of delivering any one scheme, as this will be more appropriately done in the employing school when they have full responsibility for a class.

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[20] *Teaching: the Reflective Profession,* General Teaching Council, Northern Ireland, 2004

[21] Initial Teacher Education: Approval of Programmes. Circular 2010/03. Department of Education.

NUMERACY

Pre-school, primary teachers and post-primary mathematics teachers play the leading role in teaching mathematical skills and developing the disposition of the learner to think mathematically in everyday situations, including in their future employment. Teachers of mathematics need to understand: what being numerate entails; the rationale for mathematics/numeracy in the NIC and be able to demonstrate in their teaching the characteristics of effective practice[22]. They need to create meaningful everyday contexts, including those from the other areas of the curriculum, in order to motivate and interest the learners and help them to apply their mathematical skills in a context.

The teachers of subjects, other than mathematics, at post-primary level also need to have a similar understanding and be able to make explicit the mathematical content and learning in their subject. They need to consistently promote the same models of understanding and methods (but arising naturally from learning in the subject context) as do the mathematics teachers. When difficulties occur they need to be able to help, at the point of need. All of this requires a co-ordinated approach to mathematics in every school.

As a consequence, teacher educators must also have a coordinated approach across the subject methods in B Ed and PGCE programmes to teach student teachers the points outlined in the previous two paragraphs; and to ensure that student teachers undertake assignments to become fully aware of the numeracy policy and SEN arrangements, in regard to learners who have difficulties in mathematics/numeracy, in their placement schools.

THE DEPENDENCY OF NUMERACY ON LITERACY

All student-teachers need to be aware of the difficulties that young people experience with mathematical language. Some words are technical and only used in mathematics, some have a mathematical meaning in addition to their everyday one, and others have a complex interpretation within mathematics which is not used, or even valid, in other subject areas[23]. The importance of learning the language of mathematics is particularly true in the early years.

IRISH-MEDIUM ITE PROVISION

Irish-medium (IM) student teachers on the B Ed and PGCE primary programmes are usually Irish language graduates. Students on the post-primary programmes seldom have Irish as a main subject to degree level. All of the IM students recognise the need to continue to develop their language confidence and competence and to plan their language use carefully to make sure that learners have the benefit of a language-rich learning environment. Many need to make a great effort to deliver the curriculum effectively through the medium of Irish and continue to need various levels of support according to their individual needs, as well as needing to take personal responsibility for their own continuing professional development.

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[22] As outlined in *Better Numeracy in Primary Schools (ETI, 2010), Better Mathematics (ETI, 2006)* and *Commentary on Post-primary Mathematics Teaching (ETI, 2007)*
[23] For more detail, see paragraph 3.6 of Commentary on Post-primary Mathematics Teaching (ETI, 2007)

THE EVIDENCE BASE FOR THIS COMMENTARY

The self-evaluation and inspection employed a framework of quality indicators[24] and while the programmes as a whole were subject to self-evaluation and inspection, a focus on literacy and numeracy across the curriculum was adopted. The choice of a curriculum focus was influenced by the (then draft) strategy *Every School a Good School: a strategy for raising achievement in literacy and numeracy* (DE, Bangor, 2008).

The inspections took place during a time of significant revision in the school curriculum which, in turn, requires a closer alignment between the curriculum strategies of literacy and numeracy, and the content and approaches to teaching in all of the initial teacher education programmes.

The Inspectorate and the ITE providers are both of the view that using the framework of quality indicators generally helped the providers to focus their provision more effectively on aspects of the school curriculum, on pedagogy, on critical reflective practice and on aspects of school improvement, not only in literacy and numeracy across the curriculum, but in other areas of educational change.

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[24] Self-evaluation and inspection of initial teacher education provision, 2009-2010 (Education and Training Inspectorate. July 2009).

INVESTORS
IN PEOPLE