Curriculum Development in Intensive Tuition in Adult Basic Education

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To the reader

This guide has been written primarily for tutors, organisers, resource workers and policy makers with responsibility for some part of adult literacy and numeracy education in Ireland. You may have years of experience or just be starting out. The people we have in mind most of all are tutors and, as you will see, tutors' experiences feature fairly widely throughout this report.

We suggest that whoever you are, and whatever your responsibility, you should read **Part A** – where key concepts and principles are set out. These provide the framework to guide you through what follows.

After that, where you next turn to will depend on your current priorities. For tutors and organisers in Ireland, the picture set out in **Context 1** may be familiar and reading it may seem unnecessary. However, it is there to enable you to see the place of your own situation within a larger picture – and to remind you of opportunities and tendencies you may have forgotten are there. For other readers, this offers a picture of the context for this particular guide so you can choose how to adapt or make use of the material that follows in your own national or regional contexts.

Throughout the document you will find reference to and ideas for practical work. If practical work is your first priority, you could turn straight to **Part B**, in which you will find the curriculum development cycle linking together the processes in which tutors and students are engaged in developing learning together.

Part C has ideas and suggestions for strategies to achieve this learning, namely approaches, resources and activities which fit with the curriculum for change presented by the guide. If you are curious to check out what other tutors get up to in planning, checking progress, assessing and reflecting, you will find these matters dealt with in several places (especially in **A2** and **B3**).

We encourage you to read all three parts with your own questions and contexts in mind (and possibly a pencil in your hand). In all three, and particularly in Part B, you will find commentaries and analyses of the learning revealed.

As an active reader, you will have your own thoughts on these and you may find it useful to treat these sections as discussion material in your tutor meetings or training, as a basis for exchanging your own examples and reflections.

As to the research digest in **Context 2**, this aims to provide busy practitioners with a summary of studies that influenced and inspired the thinking in this guide. It is also there to show some of the wide range of work developing in this field and of the stimulating links to be made between the development of theory and practice.

One other thing: in conversations about adult basic education, literacy is often mentioned more than numeracy. Throughout this document, however, you will find that numeracy is treated as having equal importance: it is, in fact, the 'equal partner'. We hope this too will offer material for discussion and development in all sorts of ways.

Introduction

This curriculum guide is based on an understanding that literacy and numeracy are a social practice. Beginning from a set of key concepts, it offers examples, commentaries, questions, strategies and resources within which to frame the learning and teaching of adult literacy and numeracy. It provides tutors with a way to recognise approaches they are following already and to imagine how they could extend and enlarge these. It also offers a resource to show key stages in the development of effective learning.

Curriculum

In this guide, the word 'curriculum' is used to mean the way that tutors and students navigate their way through learning experiences with a view to increasing skills and understanding. In this conception, curriculum is a dynamic idea: a moving thread that keeps learning connected. Tutors and students work together to develop this learning through a pattern of repeated connections, enabling it, bit by bit, to expand and grow in more than one direction. As the learning and teaching approach shows, it is helpful to recognise that this learning moves inwards, backwards and sideways as well as outwards, forwards and upwards.

Practice in adult literacy and numeracy education in Ireland is student-centred, starting with the student's experience and moving outwards. Tutors and students together develop strategies for teaching and learning based on students' purposes and needs, with the aim of encouraging students towards an increasingly self-directed approach to their own learning. The curriculum in this guide frames that work within the principles and concepts seen to be most desirable for that to be achieved.

There have been many other uses of the word 'curriculum' of which two – 'product' and 'process' – have been the most common. The 'product' model tends to stress objectives and measurable outcomes of learning whereas the 'process' model tends to emphasise the experience of learning and the idea of active discovery.

Both have advantages. The 'product' model aims to reduce vagueness as to what any learning activity is supposed to be for. The discipline of working out learning outcomes keeps tutors focussed on the idea that the task is to promote learning, with the intended outcomes discussed and shared with students. However, too much attention on predefined outcomes may mean students miss other learning opportunities.

The 'process' model pays attention to the interaction between teaching and learning. It embodies the idea that any process or interaction can give rise to learning, positive or negative. It focusses on how learning happens. The risk with this approach is that the learning experience may remain something that happens only in the classroom.

The curriculum model suggested in this guide, combines the advantages of both the 'process' and 'product' models in that it ensures that attention is given both to rich learning experiences in the classroom and to learning which is of value in students' social contexts in the world outside.

It is a model of curriculum which sees learning as about personal and social change (sometimes referred to as a 'curriculum for emancipation') – a means for students to be able to transform their experience in a way that can give them greater control. A key principle of such a curriculum for change is that there should be lively two-way traffic between what goes on in the classroom and in a student's life outside it. This guide is designed to help that exchange to happen.

The curriculum development cycle

This entails a cyclical process of preparing. As we will see in Part B, the curriculum development cycle is a continual process through which literacy and numeracy learning is planned, undertaken and reviewed.

Preparation:

- **Identify context**
  - of students' personal and community life;
  - their uses of literacy and numeracy.
- **Assess learning aims**
  - their learning purposes;
  - their strengths and areas for development.
- **Clarify service**
  - the ground rules;
  - the choices of provision.

Teaching and learning

- **Agree learning plan**
  - explore possible animating themes;
  - identify learning outcomes;
  - negotiate and agree learning plan.
- **Plan strategies**
  - topic-based learning;
  - focussed literacy and numeracy work.
- **Assess progress**
  - recognise work achieved;
  - record areas for development;
  - plan next stage.

Review and evaluate

- **Review context**
  - check if different since starting this learning;
  - notice any changes in literacy and numeracy uses.
- **Record learning**
  - celebrate learning achievements;
  - identify areas for development;
  - plan next stage.
- **Evaluate service**
  - reflect on student's experience of service;
  - discuss possible improvements to be made.

In this process, you can see that there is repeated attention to context, aims and learning. This provides a continual reminder to keep the focus on the student.

> Context – the student should feel comfortable about where they are starting from and what they are travelling through.

> Aims – the student should be clear as to where they are heading.

> Learning – students should feel that their interests and strengths are appreciated and their difficulties identified. This is most important of all.

The ground rules and choices in the 'service' or setting for the learning should also be clear to all participants.

Context, aims and learning are part of a cyclical process in which tutor and students cooperate. They provide connecting points to which tutor and students return at regular intervals – bearing in mind the constraints and opportunities of the service in which this takes place. Whether teaching and learning is taking place in the workplace or the community, a training course or within the family, the nature of the service will influence what choices are available – choices on which students, of course, have their own influence.

Within the cycle, as you can see, there is also a recurring pattern of activity around *planning and assessment*: in preparation, the tutor works with the student to assess his or her strengths and areas for development within an appreciation of the student's overall aims and purposes; in teaching and learning, the learning plan is negotiated and agreed and the student's progress is assessed and recognised; and in reviewing, planning the next stage follows an assessment of achievements and areas of development.

You will find all this treated in more depth in section B1.

What's in the guide?

The first and last sections of the guide provide the context for the three central parts: bookends, as it were, to hold the three substantial parts together.

Context 1 presents the context in Ireland of adult basic education in terms of **policy**, **services and provision**, and **frameworks** for quality and qualifications.

Part A: Concepts and Principles begins with a section setting out three key concepts in this curriculum guide. These recognise that *context and skills* are interdependent and integrated, that *numeracy* is an equal partner with literacy (distinct, but also potentially overlapping) and that *learning* is best understood as a holistic matter, which calls on a range of capacities or intelligences and involves feeling as well as thinking.

The principles set out in the second section provide a reminder that for **a curriculum for change** to be effective:
• it must be learning-centred – for tutors as well as students;
• literacy and numeracy should be recognised as keys to both personal development and social action; and
• learning is most empowering when it is active and expressive.

Part B: The Curriculum at Work has three sections. The first presents the cycle of *curriculum development* in which tutors and students are continually engaged. The various components of the cycle's three main stages are elaborated: preparation, teaching and learning, and reviewing and evaluating.

In the second section, the ways in which tutors act to enable this process are shown as 'roles', among which each tutor moves at stages in the cycle:

• *Exploring possibilities for learning* – meeting students individually or in groups, encouraging them to share ideas on topics and approaches that will benefit their learning and support them in their daily lives;
• *Being a teacher and guide* – planning and monitoring learning that will both support and challenge students, ready if necessary to change or abandon the plan in response to students;
• *Encouraging reflection* – helping students to reflect on and to evaluate the learning experience, while being aware that students' interests change and grow.

The third section contains four examples of tutors working strategically with students to fulfil their learning interests, with detailed commentary on each.

Part C: Strategies This opens with approaches specific to teaching adult literacy and numeracy. While it is not the job of this guide to be a manual on teaching techniques, it seemed important to include a section in which tutors can be aware of good teaching ideas based on recent classroom research (the research background for which can be found in Context 2). Over the last few years, a wide range of teaching materials, in paper and electronic forms, have been published in Ireland to support tutors' creativity. For the second section, we have chosen a selection of those which particularly connect to the framework presented in this guide and give indications of where to look further.

The third section provides a set of activities developed during the course of preparing the guide, and designed to generate learning and reflection among adult basic education (ABE) students. The first two ('Getting to my place' and 'Daily routines') explore the uses of literacy and numeracy in students' lives. These are followed by two more showing the potential of photography for stimulating reflection on learning and on the everyday contexts in which literacy and numeracy come up for students ('Pictures – evaluation' and 'Pictures – contexts'). Finally, 'Learning and student publishing' suggests ways in which the process of student publication can engage students in the process of editing both their own writing and writing by their peers and, in so doing, show some explicit learning outcomes of value to their learning.

Context 2 (the second bookend) **Ideas and Research** provides the research context for the guide. Here you will find a summary of some of the ideas and theories which have inspired the concepts, principles, strategies and resources the guide contains. These studies refer to the topics of:
* *curriculum for change;*
* *literacy and numeracy as social practice;*
* *multiple intelligences;*
* *effective teaching;*
* *peer tutoring;*
* *confidence;*
* *student development;*
* *numeracy.*

This section is of necessity brief and selective. A bibliography in the references section provides signposts for further reading.

Context 1: Adult Basic Education in Ireland

Context 1: Adult basic education in Ireland

NALA's understanding of literacy is encompassed in its definition:

Literacy involves listening and speaking, reading, writing, numeracy and using everyday technology to communicate and handle information. It includes more than the technical skills of communication: it also has personal, social and economic dimensions. Literacy increases the opportunity for individuals and communities to reflect on their situation, explore new possibilities and initiate change.

Good practice in adult literacy work starts with the needs and interests of individuals. It is concerned with personal development and building confidence as well as technical skills. (NALA 2005a: 9-11)

The views and experiences of students are central to adult literacy development at national and local level. Both ongoing work and new initiatives are informed by the students' perspectives and literacy and numeracy learning is understood to be part of a continuum of personal, educational and community development available to adults in a wide range of settings and learning contexts.

Policy

The OECD *International Adult Literacy Survey* (IALS), published in 1997, identified that 1 in 4 adults in Ireland were at the lowest of the five literacy levels surveyed. The publication of IALS moved adult literacy towards the forefront of public policy and onto the agenda for national planning. In the first White Paper on Adult Education, *Learning for Life* (2000), the Department of Education and Science identified adult literacy as a top priority in adult education and set out a National Adult Literacy Programme. Funding for adult literacy increased considerably and in 2006 the adult literacy budget totalled €30 million, compared with €1.1 million in 1998.

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Adult literacy was the subject of a dedicated report from the Oireachtas Joint Committee on Education and Science (2006) and the issue remains a consistent feature of national plans: *Towards 2016*, the ten-year Framework Social Partnership Agreement 2006-2015, prioritises adult literacy in the area of adult education. It references the expanding role of adult literacy development, family literacy, the implementation plan of the national adult literacy advisory group published by NALA[2] and the role of the VECs. It includes a commitment to consider appropriate support structures in this area and to expand participation.

The National Development Plan (NDP) 2007-2013 allocates €2.2 billion for the further education sub-programme, which gives priority to adult literacy and numeracy work and to basic skills development in workplaces.

The National Skills Strategy, presented in *Tomorrow's Skills*, the 5th report from the Expert Group on Future Skills Needs (2007), outlines the skills needed for a competitive economy up to 2020. It sets qualifications targets that involve 330,000 workers who currently have a Junior Certificate or lower moving one step up. It also recommends that as far as possible literacy should be prioritised and embedded into all publicly funded education and training provision.

The National Action Plan for Social Inclusion 2007-2016 (NAPS Inc) sets a target to reduce the proportion of the population with literacy difficulties aged between 16 and 64 to 10-15% by 2016.

Services and provision

'Adult basic education' (ABE) is used as a broad term to embrace adult literacy and numeracy work and a wide range of educational and vocational training courses at basic or foundation level in many different contexts. Distance education and independent learning initiatives are increasingly significant. The context of adult basic education work in Ireland, as it has evolved over the last 20 years, is complex and involves a wide range of organisations (see Appendix 3).

Adult literacy and numeracy services are part of a broad range of adult education services provided by Vocational Education Committees (VECs). At local level, the service is led by the adult education officer and managed by adult literacy organisers, sometimes working with resource and outreach workers. The VEC adult literacy services provide a range of learning options including one-to-one tuition, group tuition, family literacy and English for Speakers of Other Languages (ESOL). One-to-one tuition is mainly provided by volunteer tutors and group tuition by part-time paid tutors, with most local adult literacy and numeracy services providing a minimum of two hours tuition per week. Many VECs also offer programmes with more intensive learning opportunities.

Literacy and numeracy development is an integral part of the work of many different organisations. FÁS provides literacy support on several of its programmes, especially in the Community Training Workshops (CTCs) and courses for Community Employment (CE) scheme participants. FÁS also funds literacy development in workplace contexts in the private sector.

Local authorities are engaged in workplace programmes which include a literacy focus and the Congress Centres run by the Irish Congress of Trade Unions (ICTU) provide literacy and numeracy courses. Literacy is also provided, as a discrete or integral part of learning programmes, in other settings including community education and development programmes, the National Learning Network and distance education initiatives. The VECs work in partnership with many of the above programmes in the provision of literacy tuition. Education in prisons and post-release centres, which is run

jointly by local VECs and the Irish Prison Service, also gives high priority to literacy and numeracy tuition.

Partnerships are therefore central to adult literacy and numeracy development. Family literacy and numeracy programmes help to develop learning in a family context and often involve a partnership between adult literacy services, schools and local communities. Local Area Partnerships, community development projects and voluntary organisations regard adult basic education as an aspect of their involvement in community development, and in many areas ESOL (English for Speakers of Other Languages) is a significant feature of provision. Throughout the country libraries play an important part in supporting local initiatives and at national level the Library Council is a key partner in promoting adult basic education. Increasingly, distance education and independent learning initiatives based on a partnership approach play an important role.

Quality and qualifications

In order to ensure the best possible experience for students, providers work to the requirements of quality standards, assessment and qualifications systems. This curriculum guide connects to and offers support for the frameworks and systems already in use.

National Framework of Qualifications (NFQ)
The National Framework of Qualifications was established in 2003 by the National Qualifications Authority of Ireland (NQAI). It created a single, internationally recognised structure through which learning achievements may be recognised and related to each other from Level 1 to Level 10.

At each level, the overall standards are set for qualifications in the same areas: Knowledge; Know-How and Skill; Competence. Different awarding bodies set standards for awards at each level of the NFQ.

The Qualifications Act (2001), which set up the National Qualifications Authority, also provided for the establishment of the Further Education and Training Awards Council (FETAC) as the national awarding body for further education and training in Ireland. FETAC gives people the opportunity to

gain certification for learning in education or training centres, in the work place and in the community and has specific responsibilities for the development and certification of awards at Levels 1 to 6.

FETAC sets standards for awards, validates programmes leading to these awards, sets out assessment policy in relation to them and formally makes awards. Providers are responsible for the design of the programme and a range of programmes may lead to the same award. Levels 1 to 3 are particularly relevant for students in adult basic education and training. At these levels the process of assessment for qualifications is based on portfolio presentation. This means that students can build their work towards certification and achieve awards at their own pace in a supported context. It is possible to achieve both minor awards and certificates at each level. In addition, students are encouraged to work through an integrated approach, basing their portfolios on the kinds of tasks and situations they face in their everyday lives.

FETAC has rigorous quality assurance processes for all providers who wish to offer courses leading to FETAC qualifications.

Supporting quality in literacy work
Since NALA was established in 1980, there has been a consistent concern to identify and promote those elements that make for good quality adult literacy and numeracy work. *Guidelines for Good Adult Literacy Work* (NALA 1985, 1991), the first document to set these out, provided guidelines for organisation, training, materials and funding. In its third revision (NALA 2005), this remains a call to strive for excellence wherever this work takes place.

Meanwhile, by the late 1990s, improvements in funding and organisation enabled the issue of quality in literacy work to be explored further. In consultation with students and practitioners, the *Evolving Quality Framework for Adult Basic Education* (EQF) (NALA 2002) was developed, reviewed and (as with Guidelines) revised more than once. This framework, with a clear statement of aims and achievable goals for good quality adult basic education provision, is intended to help centres to develop and improve aspects of their provision on an ongoing basis. The framework continues to evolve through use and the review process.

The various organisations involved in adult basic education have quality assurance procedures and requirements for all their work.

Assessment for learning in adult literacy education

Work on the *Evolving Quality Framework* led to the development of Mapping the Learning Journey (NALA 2005b), a consistent assessment framework for teaching and learning in adult literacy and numeracy, based on national practice and international research and providing guidance and support for learning from beginner stage through to NFQ Level 3. The four cornerstones in *Mapping the Learning Journey* closely match the sub-strands in the NFQ, as shown below:

Mapping the Learning Journey Framework	NQAI National Framework of Qualifications
Four cornerstones	Areas
1. Knowledge and skill base	Knowledge in terms of breadth and kind
	Know-how and skill – range and selectivity
2. Range of application	Competence in terms of context
3. Fluency and independence	Competence in terms of role
4. Depth of understanding	Competence in terms of insight

Teaching and learning

Assess progress
– recognise work achieved.

Curriculum guide

The concepts, roles and strategies in this guide were developed from existing practice and studies of related theory; the examples and materials form a process of tutors and students sharing, testing and evaluating ideas.

The thinking behind the requirements of quality, assessment and accreditation weave in and out of the whole of the guide.

For example:

- issues of 'quality' are set out as part of the value system of adult basic education in Ireland and a responsibility of all participants (sections A2, B2 and C3);

- assessment is presented as a reflective approach to learning and progress (sections A1 and B1).

Possibilities for mapping learning to evidence of learning outcomes that contribute to certification are discussed (section A2) and illustrated (sections B2, C5).

Part A:
Concepts and
principles

A1: Concepts

In this section we consider three fundamental concepts at the heart of an adult basic education (ABE) curriculum for change:

- the interconnection between **context and skill** needed to ensure effective learning and teaching of adult literacy and numeracy;

- **literacy and numeracy** as two equal and often overlapping subjects, with potential for links between them;

- the importance of acknowledging **adult learning as a holistic matter**, varied in approach, and involving – for any learner – both the feeling (affective) and the thinking (cognitive) selves.

Context and skills

Skills and knowledge are essential; practice in using them in different contexts, equally so. Adult students bring with them a huge range of experience, both as learners and as users of literacy and numeracy – yet, all too often, they come to ABE with poor expectations of their own abilities to deal with new learning, seeing their own adult literacy and numeracy lives as a matter of skills they do not possess. The task of an empowering ABE service is to transform these expectations and enable students to see literacy and numeracy in different terms and identify what they already know.

There are two ways of using the words 'literacy' and 'numeracy'.

The most common – the skills view, and the one which tutors, as well as students may have uppermost in their minds – sees them as the ability to use written language and mathematics. This is a valid view; it helps tutors and students to identify strengths and weaknesses and talk about what needs working on. However, it is also a narrow one which can prevent us seeing a great deal of the literacy and numeracy activity that takes place in real life.

A social practice view can help to change negative feelings that students and tutors may have about a lack of skills. This view sees literacy and mathematics as 'the ways that people use written language and numbers' in varying contexts, with

varying purposes. People use literacy and mathematics in social settings, in social relationships, with levels of confidence and competence varying according to our experience of the particular context. With this perspective in mind, we are able to notice that the same text or mathematical operation feels easy to us in one situation and impossible in another – depending on who else is involved and what is at stake. What it offers students and tutors is a freedom from thinking in terms of 'right' and 'wrong', 'correct' and 'incorrect'. Instead, we can see literacy and numeracy tasks as having been accomplished effectively, or not, for the purpose at the time.

This offers us a way, too, of seeing mistakes and misconceptions as distinct and different kinds of error. In mathematics, for instance, as in punctuation or spelling, there are different kinds of mistakes (you will find more on this in Part C). Students may choose the 'wrong' operation, make calculation errors, do things in the wrong sequence, get in a muddle. This may be because they were too hasty or because they misunderstood what they had been told. Other errors, better called misconceptions, may indicate conceptual confusion which the teacher needs to help the learner to address. These are usually reasoned ways of thinking, not random wrong answers. They often arise from over-generalising a rule.

The context always has some influence on performance. Under pressure, in a post office queue, with people waiting behind and someone in authority behind the counter, a person who could confidently fill out a form, with time, at their kitchen table may panic and get it 'wrong'. The issue of context is crucial to the social practice view. In this view, context denotes more than the physical setting of a given situation. It also connotes its time and place.

Two other less visible features are also important:
- the immediate purposes and relationships of the people involved; and
- the larger world of which these purposes and relationships are part.

Participants may be visible – in a job interview or snooker match, for example – or they may be hidden – as the author of the instructions for a washing machine or a letter, for example.

Preparation:

Identify context
- of student's personal and community life; and
- their uses of literacy and numeracy.

What matters is the combination of setting and interaction: the way that the person's reading, writing or calculating are interconnected with other people.

With the social practice view, tutors know that students' learning purposes may be revealed as more than a matter of skills development. Purposes for learning may be expressed in those terms at first but, with time, enlarge to other things. A student may start by wanting to help their children with school maths; later, they may discover that they have an enjoyment in learning more mathematics for its own sake. They may begin by wanting to be able to spell better in order to deal with basic forms and then reveal that, actually, they have a considerable interest in the writing of stories.

In the social practice view, a literacy or numeracy situation is an 'event' which involves written or mathematical language in some way, as part of purposes and relationships. At the heart of curriculum development for ABE is the skilful use of literacy, numeracy and communication by speaking and listening. We need these skills and we possess them in varying degrees in varying contexts. With low skill levels, students may experience limited confidence to meet the challenges of different contexts. With enhanced skills, they feel more capable of applying what they can do in one situation to others, with confidence and fluency. With the social practice view, exploring progress involves looking beyond knowledge and skills and the learning exercises undertaken in the classroom.

As the *Mapping the Learning Journey User Guide* puts it:

> *Because the framework includes the three process cornerstones – depth of understanding and critical awareness, fluency and independence, and range of application – learners get a much more rounded picture of their abilities than a simple statement of competence in knowledge and skills. (NALA 2005b section 4.3)*

The curriculum for change, bringing together a combination of skill and context, enables students to enrich their uses of literacy and numeracy in all sorts of contexts and settings. While working on skills, a tutor with a social practice approach can also engage students in influencing or changing the context in which they are using them. An example of this is

described in the NALA publication providing guidelines on producing learning materials:

> *The setting is a Community Training Centre, where the trainees were having difficulty reading the instructions for a woodwork task. The trainer thought: 'Who better to simplify the sheets than the trainees who were having difficulty with them' He asked the trainees to tell him what they thought the instructions might mean and, as they told him, he wrote down what they said, read it back and agreed a version that the trainees felt was clearer to use. He then developed vocabulary-building activities, including word-matching exercises. (NALA 2006a: 8)*

This story shows two literacy events. In the work context, trainees struggled to make sense of a text needed for them to carry out a task. In the classroom context, they engaged in discussion on its meaning with the tutor and set about rewriting it. In the process, the tutor ensured they acquired some critical reading, editing and vocabulary tools that they could apply to other settings and situations.

A good way of thinking about the idea of 'social practice' with students is to reflect on how we work out a route from one place to another. We ask other people about their experience of making this journey. We look up timetables, read maps, write notes – use texts. The primary purpose is to make the journey. Reading, writing and doing mathematical operations are only part of what we do to achieve it; talking, listening and gesturing are likely to play as big a part in their activity as puzzling over instructions, tables or screens full of information. This is not a weakness; it is not because we can't read or do sums; it is the way we do things. Asking other people, giving each other a hand with reading, writing and mathematics is how most people deal with things. It's a matter of using the way that works best for you to find out what you need to know.

Still from the NALA/Electric Page TV series *Really Useful Guide to words and numbers* – programme on train journeys, first broadcast 2006

Numeracy: the equal partner

A second key concept for the curriculum for change is that adult literacy and numeracy are separate but equal subjects that often overlap. It is probably true that people engage in numeracy more often than they realise. Yet many adult literacy tutors and organisers seem to regard themselves as unqualified to explore discussions about numeracy with students. Others feel that the students that they meet do not raise numeracy as a problem in the same way that they raise literacy and do not see any point in exploring the possibilities of numeracy matters. In this section, we discuss some views about how numeracy and mathematics relate, suggest that discussion by tutors and students of these views can help them to look afresh at how to approach numeracy and mathematics, and show how tutors who feel that their 'technical' mathematical skills are relatively weak can nevertheless support students to develop strong numeracy practices.

As part of the consultation for this framework, we interviewed six students, 18 tutors and seven other people involved in ABE on the topic of teaching numeracy. Between them, they worked for 13 different organisations. Although we emphasised our interest in numeracy issues, we found that participants' responses often focussed at least initially on literacy and sometimes this focus continued even when prompted for numeracy.

For some, numeracy was seen as part of literacy; for others, it had a rather more separate identity. While some tutors saw numeracy as including elements of literacy and mathematics, others were not even sure whether, let alone how, numeracy should be taught. Not all literacy services offer numeracy provision. In some, it is an implicit part of 'literacy' provision but is not marketed as such and is thus probably invisible to potential students.

However, in others, we found that the organisers had carefully supported some literacy tutors to ease into numeracy and acted as champions for numeracy among colleagues and students.

It seems that literacy tutors tend to think about numeracy and mathematics in one of two ways:

1. Numeracy is a small part or subset of maths. 'Basic' maths (i.e. whole numbers and decimals) needs to be mastered before 'higher' maths (e.g. algebra). Numeracy should be assessed in isolation from literacy.

2. Numeracy is 'bigger' than mathematics. To be numerate means more than 'being good at maths'. It means maths, plus 'other thinking', such as:
   - *using common sense* (for example, if estimating how long to get to the station, a numerate person will probably add some extra time 'just in case');

   - *understanding the context* (such as how to use the understanding of geometry to make a right-angled border in a garden layout);

   - *wanting to change the world in some way*, not just understand it (as a mathematician might); a numerate person might want to help her grandchildren with their maths homework or calculate carbon footprints.

1. Numeracy is a small part or subset of maths

Maths
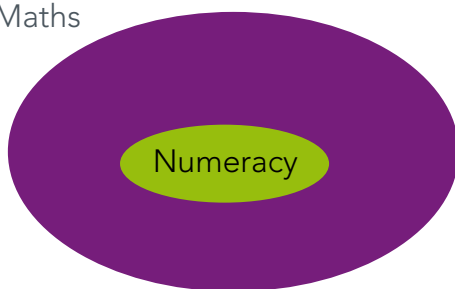
Numeracy

2. Numeracy = some maths + some other thinking

Numeracy

Maths

Other thinking

Numeracy

The second of these definitions certainly resonates with the NALA definition of the numerate adult as someone who has:

the confidence to manage the mathematical demands of everyday living, work-related settings and in further education, so that effective choices are made in our evolving technological and knowledge-based society. (NALA 2004b)

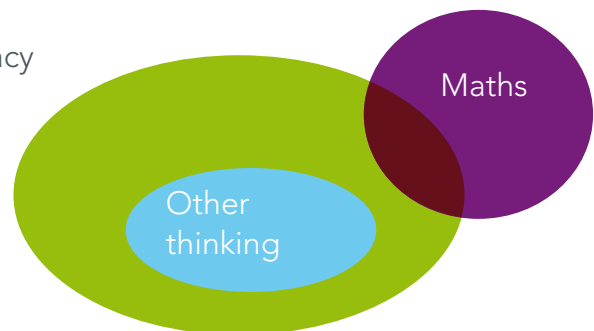Maths supports, but does not automatically deliver, effective numeracy. Conversely, a useful numeracy event can happen in the absence of sophisticated mathematics:

Asked how she dealt with numeracy situations, one student described how she had gone to a travel agency to inquire about a fare to the USA. She noticed that the price difference depended on how long you were staying when you got there. She questioned the difference and was not satisfied with the explanation given.[3]

This student's technical maths skills may not have been strong enough to make complete sense of the information she was given but she was numerate enough to see the discrepancy and to question it.

Tutors who feel their own mathematical skills are not yet as strong as they would like them to be can still provide valuable learning opportunities in numeracy. A student who had been learning about dates and times in class reported a specific and very useful benefit in how she now dealt with numeracy situations in the street:

'[Before], I would always have parked in a multi-storey car park. Now I can buy a ticket for anywhere around town and scratch it and note the time I have to stay there.'[4]

The tutor in this case may or may not have had a high level of personal maths skills herself but she certainly helped the student to transfer mathematical knowledge into a real-life situation.

Tutors who want to explore numeracy issues with current or potential students might also find it useful to discuss with them their assumptions and beliefs about mathematics.

For example, some tutors and students may believe strongly that mathematics is a hierarchical subject, in which the student needs to acquire complete mastery of techniques at each 'level' before engaging with 'harder' mathematics. This might for example lead tutors and students to believe that until all the 'times tables' are at the student's (or tutor's!) fingertips, it will be a waste of time to 'move on' to percentages. But in real life, people who don't know what eight times seven are may nevertheless be well aware that a 30% discount is better than 10%, or that a 3% pay increase for a well paid manager nets them more cash than a 3% increase for somebody on a low wage.

Sticking rigidly to a 'Mathematics is a hierarchical subject' belief is a bit like believing that you need to be a perfect speller before you can write or teach writing. If, instead, tutors and students tend to see mathematics as a network of ideas, they may be more likely to find ways of moving around this network, developing their understanding of different sections, in an iterative way.[5]

Similarly, tutors and students might find it stimulating to discuss:
• whether mathematics is best learned through practice or through discussion;
• whether learners learn best when they work on their own or when they work collaboratively;
• whether it's best to find out which parts of mathematics students already understand and move on from there, or to teach mathematics 'from the beginning', assuming no previous knowledge.

The point here is not to create false dichotomies but to support tutors and students to become aware of any assumptions they currently hold, to explore those assumptions, to look afresh at how to teach and learn mathematics, and to use approaches and techniques already in common use in literacy work.[6] Once again, it is good to remember that in a learning-centred curriculum for change, tutors are never the absolute experts – in numeracy, or in anything else.

Holistic learning

The third concept is that of holistic learning: that is, that learning – especially learning of literacy and numeracy in adult life – is a holistic matter which involves, for any learner, both their feeling (affective) and their thinking (cognitive) selves, and which engages different strengths in different learners. For holistic learning to occur, students' emotional (or affective) learning needs to be recognised as well as their cognitive abilities and their learning strengths discovered and used to enable them to increase their confidence in tackling their perceived weaknesses. There are implications here for the tutor. 'Confidence' is centred very much on how we see and represent ourselves, either positively or negatively. The habit of negativity can be shifted in discussion with others – particularly if we hold on to a 'social practice' understanding of literacy and numeracy.

Let us see how a student expresses it. Speaking in a discussion group about how classroom learning had affected her use of numeracy in other settings, she gave this example:

> I was ordering a birthday cake and when the girl inside the counter started telling me the sizes in numbers, I asked her to show me boxes that were in the shop. Then I had an idea as to what size of cake I wanted.[7]

For this student, the three-dimensional picture offered by the boxes was a more valuable measure of the cake size she wanted than hearing the sizes referred to in spoken numbers. The story she tells is clear and positive. It summarises an exchange between two people: a request, a response, a further request, a second response, and the storyteller's comment at the end The speaker was explaining her preferred way of estimating size and shape and, in doing so, giving an excellent example of a holistic understanding of 'intelligence'. This shows the value of holistic thinking about mathematics: no negative judgement, just a statement of how it was.

Tutors who are alert to the role of exploring possibilities, who hold on to the social practice view of what we do with literacy and numeracy, can open up students to their strengths. They can enable students to reflect critically on situations, noticing that while in this context they are less than confident in a given

literacy or numeracy event, in another one they are capable of dealing with it.

Meanwhile, closely bound up with ideas about learning is that of 'intelligence'. Older adult students have grown up with the idea of people having either a low or a high 'IQ' or 'intelligence quotient' (the measure devised to find out how 'intelligent' a child or an adult might be, largely based on their ability to reason out a problem in words and on paper). This belonged to an idea of intelligence that was inherited and fixed: you got it from your parents and it would remain the same wherever you were.

The idea of **'multiple' intelligences**, by contrast, says that each person is clever in one or more of several ways – and that they can show this in other ways than through formal tests. Derived from the work of an American psychologist, this idea proposes intelligence to be not a single faculty but a range of human capacities, described by eight different intelligences. The idea allows us to see learning not as progress along a single line, but as growth in various directions.

In interpreting and using multiple intelligences theory, adult literacy and numeracy tutors found that they needed to be clear about two things:

1. Multiple intelligences are different from learning styles. They saw learning styles as preferences in how we take in information which will stay constant in any setting and saw multiple intelligences as referring to the ways a person works to process and develop understanding – ways which will vary with the domain or content in question.

2. Multiple intelligences are the means to learning, not the goal of a lesson, so tutors do not need to feel they have to teach everything in eight different ways, they simply need to offer choice in the learning opportunities. (Viens and Kallenbach, 2004)

Multiple intelligences ideas have appealed to Irish adult basic education for some time. Some general suggestions for how tutors could apply them to their planning work are offered by John McGrath, ABE tutor and trainer in Listowel:

Preparation:

Assess learning aims
– their strengths and areas for development.

'Multiple' intelligences

> *None of us can include all intelligences in every lesson plan but these could offer some possibilities to keep in mind:*
> - *use the spoken/written word (verbal/linguistic);*
> - *bring in numbers, calculations, logic, cause and effect, etc. (logical/mathematical);*
> - *involve the whole body, mime, role play, 'frozen pictures' (body/kinaesthetic);*
> - *use group and pairs exercises, co-operative learning (interpersonal);*
> - *give choices, evoking feelings and/or memories (intra-personal);*
> - *bring in music and sound, rap, etc., or set key points to rhyme or melody (musical/rhythmic);*
> - *use visual aids, visualisation, colour, art, metaphor, etc. (visual/spatial).*

Good examples of the approach are available in an increasing range of published resources.

For student discussion, there are three pages of discussion material in one of the learner workbooks supporting the TV series *Read Write Now*.

NALA's *Missling the Tobar: Travelling the Road*, based on the published writing of four adult literacy students, while not mentioning multiple intelligences itself, offers a number of learning resources which recognise a range of student strengths (NALA 2006b). At the end of each section are teaching and learning activities related to each of the books provided. These suggestions include: discussion topics, matching and sorting games, ideas for encouraging students to bring relevant material in, map work, research projects, quantity and number work, data handling, problem-solving and field trips.[9] Learning, with this range of options, offers itself as multidirectional as well as holistic: a means to grow in critical thinking as well as in skill and confidence.

Similar variety strengthens learning in mathematics. NRDC's resource pack, *Thinking Through Mathematics* suggests some useful exercises to support students to become active participants in their own learning by communicating effectively about mathematical ideas. For example, in a 'back-to back'

exercise, one student describes a shape and the other tries to draw it, or one gives directions to a place and the other 'translates' that by drawing a map. (NRDC 2006)

In this section we have looked at three concepts which are central to an ABE curriculum for change: the interdependence between context and skill, the status equal partner with literacy; and the recognition of adult learning as a holistic matter. We move now to the principles at the heart of these concepts.

A2: Principles

The word 'principle' has an association of something we strive to keep to, an aspiration, a set of criteria for us to check how far we are holding on to core values. In this context, key principles remind us of our commitment to the concepts. Expressed in a statement, the principles at their heart become clear.

For a **curriculum for change** to be effective:
- it must be learning-centred – for tutors as well as students;
- literacy and numeracy should be recognised as keys to both personal development and social action;
- learning is most empowering when it is active and expressive. (NALA 2005a: 4)

This offers us three principles and what follows are some notes and examples to bring them to life.

1. The learning-centred curriculum

The learning-centred curriculum

Working with a curriculum for change means that tutors and students:
- start from the student's experience of life, learning, literacy and numeracy; and
- set out to transform this experience in ways that give students greater control.

To make this possible, a curriculum for change has to avoid a primary focus on what is going to be taught; it needs to be learning-centred. This means two things: first, that learning, rather than teaching, is at its heart; and second, that all participants involved – tutors as well as students; partner organisations as well as ABE providers – stand to learn from the work.

Tutors make mistakes as often as anyone else (and it can sometimes be comforting for students to see that they do.) Effective tutors are ready to recognise when things are not working, think about alternative strategies, and learn from the experience.

This focus on learning keeps the attention centred on the process of development and change for all participants. Awareness of the learning-centred nature of the curriculum is important throughout the cycle of curriculum development as tutors and students plan, act and reflect on the learning activities. The following accounts show two tutors reflecting on learning they gained from their students and how that learning enabled them to adapt their teaching to be more effective. It is no coincidence that both concern the telling and making of stories – and of attentive, or active, listening when the listener is prepared to give their full attention to the speaker. Three moves can support this kind of attention: asking, prompting and recapping.

In the following example, a tutor tells of an experience when she learned from her student. In her account, you can notice three moments when we can glimpse her, in her own listening, making these moves.

Carol the storyteller
Mary Markey, Co. Kildare

At the beginning of July each year, our scheme in Naas runs a summer school. Each day for one week, there are a variety of workshops which vary from year to year. In 2003, we had a storyteller from Dublin who came and told all sorts of yarns, folklore, and it was open to tutors and learners. This storyteller happens to be my brother. I say this only to explain that I have heard a lot of his stories over the years either at home or at other events.

Students of the ABE group that I tutor were there and when we rejoined in September, the topic of the summer school came up. People were talking about the various workshops they had attended, which ones they particularly enjoyed and what they had learned from them. One member of the group, Carol, in her early 40s, explained that she had been at a wedding during the summer and had told some of the stories at the wedding. I was very interested to know which ones. She said, 'the one about the summer dress, the pinstripe suit and the one about the guy buying the swimming togs'. I realised that I could not remember the end of any of those stories and none of the others who had attended the storytelling workshop could either. She told them to the class.

As she told each story with gusto, I still couldn't see the punch line coming. After the laughing died down, we talked about our memory skills. Her memory was very finely tuned and she relied on oral skills. It reminded me how stories in Ireland were passed down. Folklore and legend have always been an essential part of Irish culture, with the emphasis being on story-telling, an oral tradition. In Gaelic and Norman-Gaelic Ireland, the poet or 'file' was the guardian of knowledge and, as such, enjoyed high status in society.

The folk-tales and legends of Irish culture were handed down through generations of such guardians and the telling of such tales to the community was a great social tradition. Carol had a wonderful memory for stories and used her memory skills to compensate for her difficulties with writing. I, on the other hand, rely so much on writing things down to remember them that I couldn't remember any of the stories even though I had heard them all before. Carol could entertain the group and the wedding party in a way that I never could.

Commentary

At the start of their class, Mary encourages the students to talk about the summer school. We can imagine her in this stage of the discussion **asking** students, in turn, to share their recollection of how it had gone. ('Where you there, Sean?' 'What did you think, Ruth?' 'Did anyone else go to that session?') This is one of the three moves she seems to make in active listening (and, as she is working with a group, she will need to be actively listening as well for anyone who has not already spoken). Then, Carol joins in with a reference to the wedding that she had gone to during the summer break. Mary reports that she 'was very interested to know' of the stories that were told at this event. At this stage, she will be showing her interest not so much by questioning as by **prompting** Carol, who has already shared something, to say more about it. ('That sounds interesting, Carol. Could you tell us any of the stories you remember being told?') In her third move, realising that she herself could not have recalled these stories, she is offering a kind of **recapping** – telling Carol again what it is she has told them and, in so doing, encouraging Carol to share one more layer: the stories themselves.

Three good moves for an active listener – and all releasing additional knowledge from the speaker.

Carol, in Mary's view, was herself a good listener as well as a good storyteller. Perhaps not everyone would be as good at listening as Carol who, as Mary says, also has a 'wonderful memory' for what she hears. Mary invites her to retell the stories to the class and this time Mary, as tutor, is listening again – with her ears open for the learning that is happening. What she hears is something that she can build on, giving Carol the group's attention as well as her own, and what she then does is to help them notice, consciously, what they are doing. This is the tutor as reflective practitioner – ready to appreciate that she is not the only one with knowledge in the classroom, to see an opportunity to help students notice oral skills and craft, and to celebrate a moment of learning that she has gained, as well as them.

The second story of a learning tutor shows one in a situation many readers may recognise: the learning is going well, in a way, but there seems to be a lack of energy and fun. When this tutor tried something different, it was partially successful but, in the process, he saw that there were some gaps in knowledge and understanding. In order to address this, he took a risk with a third approach and this time, there was a whole new feeling in the group.

Teaching and learning

Plan strategies
– agree topic-based learning activities;
– plan focussed literacy and numeracy work.

Students create a story
Peter Cleary, South Tipperary

These classes took place in a training centre where the trainees attend daily and undertake learning in work skills, social skills, technology and personal development in a friendly co-operative environment.

For the past year I have been working with a group of four special needs students at the centre: Mary, Margaret, Paula and Paul. We had been doing a lot of work on the technical skills of writing and spelling, name and address, days of week, months, etc. Although this had been going well, I felt the class lacked fun and the opportunity for students to put their learning in context.

I tried using easy books to help the learners with reading and spelling but soon found that these students did not understand beginning, middle and end of a story. So, to help students get a better understanding of stories, I decided we would try to create our own. In class, on the white board, I drew a number of streets and asked the class for a name for the fictitious town. They came up with the name 'Ourtown'. We then proceeded to name the streets, create characters and name the type of shops that you would have in a town. Each learner also picked a character to be in the town: the manager of Aldi, the policeman, the shopkeeper, the credit union worker. (I was the priest but the class felt I should also be a vampire by night). This exercise generated a lot of fun and conversation.

Next we talked about the story of the town and the things that might be happening among the people. The students really enjoyed this, likening it to the TV soap operas of which they are very fond. 'Ourtown' has not been in existence long but already there has been at least two murders. The story is progressing well and I'm looking forward to the next instalment.

Reflection:
This has been a very useful learning experience both for me and for the students. The exercise took place over three one-hour classes but could be the basis for an ongoing activity. Above all, it was fun for all and as the students left each session, they would talk about what they were going to do with the story next and students who had not done work outside the classes before brought in ideas for the story. In short, they had become generally more interested and involved in their own learning, which had included:
– *a better understanding of the structure of a story, creation of characters, plot and sequence;*
– *interaction between individuals in the group;*
– *practice with social sight words like shop, bank and post office; and*
– *increased awareness of roles in the community such as policeman, priest and shopkeeper.*

<u>Commentary</u>
This is the tutor learning from observation, taking a risk and following student interest. The activity of creating a story in a group in the way that Peter describes is a special kind of composition, calling on a tutor's skill and experience in encouraging students to contribute ideas, take turns and try things out. As far as this goes, the work was entirely oral – with a lot of learning as a result. With time, and the tutor supporting the students, the story could be put on paper and shared with other students (there is more on this in the Activities section in Part C).

In classrooms, problems and barriers crop up all the time. This is not a failing on the part of the tutor. The learning tutor is on the lookout for them. What this one did was to:
- recognise there was a problem;
- analyse it;
- try out a solution;
- notice it wasn't working;
- try a second intervention;
- observe and reflect on the result.

Peter was listening and looking and encouraging students to do the same. He offered them the basis of a story that they could develop. Then, in his reflective note, he analysed the learning that they engaged in, in the process of doing this. This is detailed work. In terms of the curriculum development cycle, it is essential to the process of reviewing and evaluating how the learning is going. It is the tutor taking responsibility for his or her part in that learning being successful and, having 'identified areas for development', returning to the point in the curriculum development cycle for 'trying out (an alternative) teaching and learning strategy.'

2. Personal development and social action

Literacy and numeracy skills development, personal development and social action inter-relate in many ways that are familiar to experienced literacy practitioners and students. *Personal development* is encouraged when, from the first encounter with a service, a student experiences respect and a genuine interest in her or his concerns.

Review and evaluate

Evaluate service
– reflect on student's experience of it;
– plan focussed literacy and numeracy work.

Initial assessment, as it is sometimes called, means organisers or tutors welcoming a new student, appreciating their need for a quiet space to find out more about the service and to discuss their interests and needs. Crumlin College's guidelines, for example, suggest that the four aims of this first conversation are to:

– allow the student to speak freely;
– enable the organiser to work out where they are at;
– clarify the options available to the student; and
– work out jointly what is most suited to the student for the present.

This approach encourages tutors and/or organisers to: 'start the chat with some form of open-ended question such as "What brings you along here?"'. The organiser provides the tutor with whatever information she or he has been able to gather from this conversation. Of course, new volunteer tutors may be nearly as nervous as the student, but as Crumlin College's training notes suggest, that can be a source of mutual consolation. The important thing is to 'draw out your student to establish his or her needs and interests.'[10]

ABE students often describe how they developed confidence and self-esteem in the course of their learning programmes, alongside the literacy or numeracy skills. As the student develops new skills in the context of a respectful and affirming tutor-student relationship, they also develop personal confidence. This in turn increases their ability to take on a wider range of literacy or numeracy practices, to develop new skills or to become more fluent and independent in using those they already have.

Personal development is perhaps best described as the kind of change that enables a student to push aside the internal barriers that had been holding them back. Where they had previously felt too anxious or reticent to take a risk in situations involving written language and mathematics, they now feel freer, in a wider range of settings, to make the attempt and get over their fears of other people's judgements.

As they develop their confidence and skills, students may decide to take part in community or social action for the first time or on a level that they may not have done previously. Examples can include a wide range of activities and choices: joining the literacy scheme committee; attending a

Preparation

Identify context
– of student's personal and community life;
– their uses of literacy and numeracy.

Assess learning aims
– their learning purposes;
– their strengths and areas for development.

Clarify service
– the ground rules;
– the choices of provision.

parent-teacher meeting; joining the committee of the local school; registering to vote for the first time. Many prefer to take part in a small-scale activity rather than any public campaigns or anything that could be regarded as active politics. As Geraldine Mernagh notes:

'Students may not see themselves as taking on problems within their community. Their community action could be student community action, such as taking part in reading evenings' (Informal conversation, WIT, Waterford, November 2006).

However, it is also true that plenty of students would like to make things better where they live and work and there are ways to make connections between this interest in improving life and the literacy and numeracy events that arise out of turning that interest into action.

This experience of a group of young trainees at Newbridge Youth Training and Development Centre, working on a project to do with health and fitness, provides a useful example. The project involved them using reading, writing, numeracy and verbal communication to investigate health issues, as part and parcel of a practical fitness programme. The tutor had heard them talking about there being 'nothing to do' in the town, no facilities for sport and fitness. She asked them to consider whether this was true and they did a survey of their town to find out just what facilities were available to young people. Their survey confirmed their perceptions. The tutor then invited them to think if there was anything they could do to help change it. The students decided that they would write to their town council to let them know the results of the survey and to request improved facilities. As Centre manager Kathleen Cramer recalled:

The students went on to get a campaign going to get a skateboard park for Newbridge (we got agreement, but no park yet). They drew up petitions, got signatures, organised public meetings and met the county council, so there was plenty of opportunity to use oral and written language. It was very successful in terms of confidence building and demonstrating how decisions at council level are taken. One student was a keen skate boarder and he started the whole campaign himself. (email to NALA, September 2007)

This approach helped the students to develop their literacy skills – of reading and expressive writing in this case – at the same time as developing a sense of themselves as people who can have a voice and help influence change.

In community development work, educational activity follows a sustained period of listening to people first expressing their concerns. Alan Rogers' useful catchphrase 'literacy second' is relevant here.[11]

As this next account reveals, the approach is to listen first and give support with literacy and numeracy second.

Community development, literacy and numeracy
Karina Curley, North Offaly and North West Kildare Partnership Company (OAK), November 2006

Our community workers start work on a housing estate in consultation with workers from other agencies who may already be working there. To date, we have worked intensely in four estates. We have learned that inviting people to attend meetings by putting up notices and invitations does not work. The best way is face-to-face contact. If there are people already active in the community, our workers work with them to make door-to-door contact with others. Only then do we hold a public meeting.

At that initial meeting, we identify issues that seem relevant to the people there. Over time, the needs are discussed and prioritised, and we encourage residents to form a group and undertake committee skills training. It is then that our support workers need to show sensitivity to any literacy and numeracy needs. Once the group is formed, we support them to develop the aims and objectives, constitution and ground rules which they need for it to become a residents' association.

We offer time to discuss issues and mentor those who take on roles such as secretary or treasurer. This support will carry on until members feel empowered to carry out these roles unaided. They are encouraged to switch roles and thus gain new experiences. Literacy and numeracy support is an integral part of this process – for example, the secretary

learns ways to write and keep the minutes. All committee members will learn about fund-raising, sourcing funding and keeping accounts of monies acquired and spent. They are also supported to liaise with other key contacts in the area such as county council officials and elected representatives; to write grant applications; and to source funding for education and training needs. Such additional training has included child protection training, childcare training, computer training and attendance at arts and crafts courses.

A key outcome has been the willingness of residents to represent their area on committees and groups in the wider community, and – more importantly – to feel empowered to have a voice on such groups. Also of significance is that parents begin to recognise and demand greater support for their children. Parent and toddler groups, homework clubs and youth development activities are some of the activities that have emerged as a result of the work.

Commentary
Organisations funded to do community work are likely to have to show different outcomes than those funded to ensure progress in learning. Readers may feel that this account is not representative of their own ABE service where the idea of 'literacy and numeracy second' may seem a bit of a luxury. The account is a useful reminder, however, into the context from which many people may first come into ABE: the context of being involved in – or thinking about getting involved in – their local communities and, in the process, getting drawn into literacy and numeracy events that crop up in the organisations that emerge.

The learning involved in 'fund-raising' and 'keeping accounts of monies acquired and spent' engages participants in the key features of numeracy and the related 'other thinking' (see *Numeracy: the equal partner*). They are what we might call 'time and money management' – the calculating and estimating involved in any planning and budgeting activity. The personal and community learning that is 'and numeracy' may form a major part of the development which people stand to gain in the approach described here.

The experience of 'student empowerment' summarised in the *Ideas and research* section is also relevant here. Student development, supported by the NALA work in this area, involves people who may never have been to a meeting before, gaining the skills of listening and speaking, organising agendas, arriving at consensus and recording decisions. All of this is literacy work that could be practised in classroom settings, using role play and scenarios that students themselves could suggest. It means applying the 'literacy second' motto in the community of the classroom: checking out student experiences of taking part in organisations and identifying together the literacy and numeracy learning they might find it useful to explore. It could mean pausing at the place in the cycle where the 'preparation' could be done for another phase of planned learning.

Our next two examples give the focus to mathematical learning and come from work outside Ireland. Gelsa Knijnik worked during the 1990s as a teacher and researcher in a settlement of the Brazilian Landless Movement, organised to achieve land reform in Brazil. The educational activity she worked with was centred on the settlement's main productivity (growing and selling melons), was designed with the community and, she argues, contributed to the Brazilian Landless Movement's political struggle. These two experiences show something of the relationship between social action and mathematics.

The measurement of land

Here[12] Gelsa describes two approaches to the measurement of land: a conventional, 'academic' method, measuring the land in terms of hectares (squares of 100 metres each side) and a measurement based on the length of time needed to work the land.

The discussion took place in a context where ideas about the 'size' of land are very significant for people involved in a struggle over its control and ownership.

Two of the peasants used the 'tractor time used to hoe' as a parameter to determine the size of a surface. One of them explained to the pupils[13]: "One places the tractor on the land. Working with it for three hours makes exactly one hectare."

The question of measuring the land with time was analysed jointly with the pupils and the farmers. What appeared to be 'inappropriate', as the pedagogical work began, was then more clearly understood by the group as examples of linear distances expressed by measure of time…

For farming purposes, the hour of tractor use is more relevant data than the precision related to square meters of land. As a peasant said, "a few meters more, a few meters less, it doesn't really matter too much."

Commentary

This account suggests how the social context from which mathematical thinking emerges may influence that thinking. The purposes to which mathematics is being put may generate a variety of mathematical ideas or procedures, and the teaching and learning process involves choices about how to respond to and value this variety. As we saw in this example, different ways of thinking about the 'size' of the land were expressed in different pieces of mathematics. Gelsa Knijnik took an 'ethnomathematics'[14] approach, seeing mathematics as a 'cultural system permeated by power relations'. This means she is committed to acknowledging all kinds of mathematical thinking, not merely the variety she was trained in. It also means that she takes it for granted that she should explore students'

ways of thinking, rather than insisting on the conventions of 'academic' maths.

In the second example from this work, we see how the planned work of the group is disrupted by a hailstorm which destroyed most of the melon crop. The storm had ruined the students' livelihood. How could it not affect their lesson plan?

The hailstorm
The group had been planning to do some mathematics related to the size of the crop and its likely sale value. But the hailstorm catastrophe became a key determinant of whether and what mathematics would be studied. The social context determined the curriculum in both the 'process' and 'product' sense. In Gelsa's words:

The young people of the more advanced classes refused to discuss the subject. As one of them said: "What has happened has happened, one cannot think about it". They would not even analyse the size of the loss. As one of the girls said: "It was a total loss." This was greater than knowing how much the total was!

Gelsa and her students did eventually do some pedagogical work related to this disaster by taking up a suggestion made by a woman in the group:

She brought [up] the question of agricultural insurance. This was a theme which allowed one to take up the discussion on melon production again in the various classes, even though the assessment of the losses, which more directly involved mathematics, was impossible to perform, having met with resistance on the part of pupils.

Commentary
A tutor may have a particular set of desirable mathematical learning outcomes in mind, but if the primary purpose of the educational activity is to support the life of the community in which their students live, she or he needs to be ready to adapt these. Gelsa expresses this thus:

We got the community (especially the melon producers) to participate in the pedagogical process in order to qualify the ways of production, and not simply for the purpose of collecting 'frozen' elements which would allow the study of mathematics.

In the Irish context, similar issues arise. In the earlier example about the work of the North Offaly and North West Kildare Partnership Company, community development workers and students decided that they wanted to be involved in a particular piece of social action and derived a literacy and numeracy curriculum from that. In Brazil, tutor and students did likewise. Both situations required decision-making about what counts as valid numeracy. Such decisions are at the heart of the co-operative negotiation between tutor and students about what and how to learn.

3. An active and expressive process

The third principle concerns the idea of 'active and expressive learning' and the right of students to 'explore their needs and interests, set their own goals and decide how they wish to learn' (NALA 2005a: 16).

Active learning means enabling students to be confident. Critically, the student recognises their own responsibility for their own learning and the learning environment. It means students listening as well as talking, generating knowledge and applying it to solve problems – in essence, both doing things and thinking about what they are doing.

The curriculum for change, grounded in the social practice or 'context' view of literacy and numeracy, supports students both to practise their classroom learning in other settings and to encourage them to bring 'outside' experience into the classroom work. This means recognising, too, the place of participation in community life in the process of developing literacy and numeracy independence.

What does it need for this to happen? A short answer is a phrase taken from a writer about higher education: 'a benign environment for learning.'[15] As Gretta Vaughan from Co. Limerick VEC suggests:

Teaching and learning

Agree learning plan
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Plan strategies
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– focussed literacy and numeracy work.

The environment has to give the message that learning happens in a different way in this place and that that type of learning is highly valued here. For learners whose only experience of learning has been institutionalised and formal, curriculum as a means of change starts as soon as they walk through the door of the learning place and the welcome they receive there. I've seen change happen at this point when they realise they are in an environment where it's alright to be who they are, that they are listened to and valued as people. (email to NALA, November 2006)

The following note of active learning from a collection put together by tutors in Gretta's adult literacy service offers an example of the way that many tutors encourage their students to bring their literacy and numeracy lives outside the classroom into their learning work within it:

Preparation:

Identify context
– of student's personal and community life;
– their uses of literacy and numeracy.

Trip to Scotland

This student has a goal: she wants to travel to Scotland alone to visit her daughter. In class, we worked on flight dates/ times/destination; researched information on Glasgow and Edinburgh; did globe and map reading; created flashcards on useful 'airport words'; and did numeracy work on the sterling-euro exchange rate. After the trip, the student gave an oral and written report on the trip, wrote a letter of thank you to her daughter, read and discussed programmes and brochures with the other students, and wrote a story of the trip for a student publication.

This is a tutor being alert to the student's context and purposes for classroom work. She has created the two-way traffic between them that we noted in the introduction is fundamental to the curriculum for change and enabled her student to learn and apply her skills and knowledge in more than one setting. Active learning means students becoming active contributors to classroom work in this way. With many students, this is not going to be achieved quickly; a change to life-held views of learning and teaching may be needed.

The following account from Celine Gyves shows a good illustration of this:

The Primary Health Care programme started in September 2002 and consisted of 12 Traveller women, their ages ranging from 20 to 60 years. The aim of the project was to enable them to use the new knowledge and information gained from the course to inform other Travellers and pass on a fresh appreciation of good health to the next generation. Although the younger members of the group had all attended school, initially there were gaps and uncertainties in different areas of their literacy development. All were suffering from low self-esteem and lack of confidence and a major part of our work was helping them to feel good about themselves.

The course was designed in a way that would enable the women to develop their literacy and numeracy skills, which were quite varied, and help them transfer the skills that they already possessed to develop others. This was a challenging task for both tutors and students and was achieved in very small steps. The students were already living full, interesting and diverse lives and imagined this to be of no value outside their close-knit community. However, the experience inspired the tutors to develop material so that the new-found value in the students' lives became the foundation for personal growth and development.

Literacy support was built into all aspects of the course and used practically to carry out exercises that would enhance the work the students were already involved in within their community. The success from accredited and non-accredited courses worked as a continuous reinforcement and slowly, individually and collectively, confidence began to rise.

Aspirations and goals were very varied. For some, this was writing a Christmas card for the first time to relations in England; for others, it was representing Travellers on Traveller Forums locally and nationally. However, everyone agreed that this new 'muscle literacy' needed to be constantly working if real change was to happen. Gradually, the students became active participants in the learning, bringing in newspaper articles and magazines from home. Over the next three years, some moved on to undertake training to be literacy tutors. Two have also been appointed as Traveller health development workers.

Theresa McCarthy, one of the 12 original students in the group, wrote a letter to the project about her experiences (July 2007). The following extracts tell us something of her feelings about what the change meant for her:

It has made me aware of a lot of issues and the need for more health education for the Travelling Community. I know myself that I would have felt less resentful about many of the questions that I was asked when I was in hospital if I had understood why they were being asked. I am less inclined to take it for granted that people are discriminating against me because I am a Traveller. I can see other people's points of view but I can also put across my point in a calm way that will be listened to…

Theresa undertook an adult literacy tutor training course, became a one-to-one literacy tutor, and then tutor for a literacy group with Traveller women. She reflects:

From all the courses and work I have done, I have gained a lot of experience. I know how to work to improve things for myself and my community… I feel I have gained a lot of experience by seeing how places are run. I was on the board of the Family Centre for three years. I am now on the board of management of the Traveller Training Centre. I have got a lot of help and support along the way and I feel I can support others… I have come a long way since I left school at 13.

Commentary

The aim of this programme is very clear: a change in attitude and confidence alongside a change in skills. There is a helpful two-fold recognition of the students' context: on the one hand, of the 'full and interesting lives' which they were already living; on the other, of the need to expect 'very small steps' in their literacy and numeracy skills development.

Theresa's letter provided a very heartfelt account of her learning journey. This brief extract helps us to see the connection she was able to make between her personal development and social action, through her tutors' willingness to learn, and through the commitment to learning as an active and expressive process. None of it happened quickly.

All adult learning benefits from students practising and developing what they do in class. Homework is a term many students and tutors shy away from, quite understandably. Progress and development is more likely, however, if students do keep alive the learning they have achieved and apply it. It means they need to be encouraged to ask themselves: **'What kind of work could I do before next week to improve my skill and confidence in this?'**

Homework, after all, does not always have to mean worksheets: it can mean finding ways to support students in becoming increasingly active and independent in their learning. In thinking about this, tutors could keep in mind the additional question: **'What could students bring in next week to contribute to the work we do in the classroom?'** (For more on this, see Part C.)

In thinking about 'active and expressive learning', tutors also need to bear in mind one other thing. As the following example from Gaye Enright in Wicklow shows, the very idea of 'active' may be open to different interpretations and mean different things to different students:

Alit is 25. He grew up in Northern Europe, had lived in Ireland for three years, could articulate well, but had written skills which, in his own view, were barely adequate. He was given a one-to-one slot and a group session from the literacy provision, on a learning plan to include comprehension activities using CD and writing techniques.

After three weeks, Alit said: 'Look, what I want is for you to do dictation to me, so as to practise writing.' The dialogue that followed went something like this:

Tutor: Sure…Is there any topic you had in mind?
Alit: No, you the teacher.
Tutor: Would you like me to show you some text and you can choose one that you're most interested in?
Alit: Maybe, but you know as teacher. I do what you give me like when I go to school at home.
Tutor: And is dictation what you want in the group session as well?

Teaching and learning ✏️

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> *Alit:* Tutor, maybe you don't understand. At home I work as carpenter. If you come to me to learn to hang door, I tell you what to do. I don't ask 'would you like to try it this way and that?' I teach you how to do and you do what I say.
>
> *Tutor:* I didn't think of your English class that way… ok… So, if you take out your copy, I'll start the dictation straight away.
>
> *Alit:* Thank you. And will you correct mistakes I make when I make them? It pleases me to get them right soon after a mistake.
>
> *Tutor:* Yes, whatever you say.
>
> **Gaye's reflection:**
> *The scenario helped me to reassess my response and sensitivity to student teaching and learning problems. The direct presentation method that Alit chose was uncomfortable for me as I felt it placed Alit in a mostly passive role, but actually this move launched us into being able to approach the teaching and learning together. Alit was affording me the opportunity to improve the climate for his learning and to form an adult working relationship.*

Commentary

Broadly speaking, it seems that Alit believed that he wanted to replicate some of the school approach. Yet the example he took – of carpentry – was from his adult experience. He wanted specific direction as a student and was not reassured by being offered choice by the tutor.

At the same time, it appeared that by asking for what he wanted, Alit was also asserting the student-directed approach. He asked for this particular exercise, possibly as part of a range of activities: often a very sensible thing for students to do. If student direction is to be the key principle, our response, as Gaye's was, needs to be to go along with the suggestion as a good idea to try out, not as a concession to an uninformed student.

This is a complex example. It shows that student-directedness does not mean complying with every student suggestion, but involves tutors engaging with students. It is an example of a student as active learner, acting as a guide to how he wants to learn and challenging his tutor's assumptions.

In this section, we have shown examples of three key principles that can ground the work of the curriculum for change:
- the learning-centred curriculum;
- personal development and social action; and
- active and expressive learning;

We have seen how reflective tutors make use of their own learning to adapt their plans in light of student responses; how encouraging students in their own development can make connections with their interest in social and collective action; and how 'active' learning can be understood as being active contributors to the class, active in moving on to new learning, and active in engaging with the teaching being offered.

Part B:
The curriculum at work

Part B: The curriculum at work

Having identified concepts and principles that underly a curriculum for change, we will now look more closely at the process in which students and tutors work together to develop it and will see how, in different roles, tutors can support student participation in this process.

B1: The curriculum development cycle

Tutors and students, working together on learning literacy and numeracy, are engaged in curriculum development. As practitioners are only too well aware, this activity does not happen in a straight line, travelling neatly from stage one (where a student has X amount of knowledge and skill) to stage 10 (where they know everything). It is both more challenging and more creative than that. Things have to be returned to.

New learning has to incorporate and repeat old learning. Looking back needs to happen, as well as looking forward. Sometimes, things seem to go off sideways before returning to what had seemed, originally, to be a central purpose. It seems best to show this in the form of a cycle: a cyclical process in which, along the way, tutors hold on to the key concepts of the curriculum, using them to guide students in opening up their learning interests, increasing their skills and building new confidence. These key concepts, to recap, being:
- the interconnection between **context and skill**;
- the recognition of **literacy and numeracy** as equal partners; and
- the understanding of **adult learning as a holistic matter**.

This diagram is best understood as a 'forward spiral' or cycle of change, with the same sequence being repeated, but each time starting at a more advanced stage because of changes in context, learner purposes and learning outcomes carried over from the previous cycle

Preparation:

- **Identify context**
  - of students' personal and community life;
  - their uses of literacy and numeracy.
- **Assess learning aims**
  - their learning purposes;
  - their strengths and areas for development.
- **Clarify service**
  - the ground rules;
  - the choices of provision.

Teaching and learning

- **Agree learning plan**
  - explore possible animating themes;
  - identify learning outcomes;
  - negotiate and agree learning plan.
- **Plan strategies**
  - topic-based learning;
  - focussed literacy and numeracy work.
- **Assess progress**
  - recognise work achieved;
  - record areas for development;
  - plan next stage.

Review and evaluate

- **Review context**
  - check if different since starting this learning;
  - notice any changes in literacy and numeracy uses.
- **Record learning**
  - celebrate learning achievements;
  - identify areas for development;
  - plan next stage.
- **Evaluate service**
  - reflect on student's experience of service;
  - discuss possible improvements to be made.

As you can see, there are three main phases in the sequence, each reappearing and reconnecting with the others. We could call this a recursive process. While tutor and student move on from one step to the next, they also return and move on again. In the preparation phase (already touched on in A2), the task is for student and tutor to exchange some essential information:

- the student's context and purposes for learning and their experiences of literacy and numeracy uses;
- the tutor, setting or service in which they will be working (including the choices of how and when tuition is offered and the 'ground rules' of how things work: time-keeping, confidentiality, and so on).

This, then, is the phase for 'initial assessment' of the students' purposes and abilities in literacy and numeracy – and, at the same time, the students' assessment of the place they have come to. But it is also a phase that may recur some time after the student has begun with a programme of learning. A student's change of circumstances may need explanation. They may have found new aims and purposes. The service or programme may have altered its timetable, or be able to offer new choices.

The second phase is the time when the full range of teaching and learning goes on, as tutors and students work out together what themes might be of most interest and use to the student, in line with the student's aims and objectives in engaging in the learning (see B3 and Part C).

At this phase of working together, tutors and students may consider various ways of exploring these themes while, at the same time, engaging in reviewing, evaluating and identifying what seems to work best for the student's learning. Reflection will be needed on how the student sees his or her context, the learning and the service, discussing with the tutor questions like:

- How is it going?
- What has been achieved?
- What needs changing in the original plan?

(see B2)

We look now at the two key activities which recur throughout all phases of the cycle: planning and assessment.

Planning

Planning 🔗

Tutors and students stop and review and move on and stop again, each time (all being well) at a stage a little beyond where the student was before. As this tutor indicates, there needs to be discussion at regular intervals about this:

> *Students decide for themselves something they would like to achieve or accomplish over a six-week period. For example, I have one student at the moment who wants to learn the time. Another wants to be able to do simple subtraction without using a calculator. We discuss how we will go about achieving these goals and work on it from there.*
> *(Mary Walsh, Listowel, November 2006)*

So, at regular intervals in the cyclical process, tutors find themselves thinking about how to plan the next phase based on any changes observed by tutor and student as to how things are going. For learning to be really effective, this needs to be done both for individual students and – if the context is group learning – for the group. It is an important part of the work that tutors do; at the same time, the skilled tutors are the ones who have a plan and are also ready to adapt.

What is clear is that, for progress to be made, tutors need to discover and work with students to identify their learning goals – the essential ground on which the planning should be based.

Tutors spend a great deal of time planning and preparing lessons, exercises and worksheets. This is absolutely necessary. However, for the learning to be uppermost, it is important to focus first on the learning to be achieved and then think about what would help to achieve it, rather than the other way round. (See B2 for detail on writing learning outcomes). Two questions guide the tutor in his or her planning and reviewing: 'what does a student want to learn?' and, once in class, 'how well am I helping her or him to learn it?'

In preparing to teach, both these questions inform the work of planning what to do next. In a curriculum which is genuinely student-directed, the task of the tutor is to use his or her knowledge of student interests to inform the planned activity on the skills the tutor knows the student wants or needs to work on. This tutor described her approach to planning in this way:

All the participants in my group wanted to work on writing and spelling…I wanted somehow to relate it to their interests and move away from just worksheets. I knew from spending time with them what these interests were and so I suggested that we write a short piece for our centre's newsletter entitled 'Interesting facts about…' By the end of the lesson, each student had written four or five interesting facts on such topics as racing pigeons, working on a farm, and dogs. (Lavinia English, South Tipperary, May 2007)

In this approach, students are creating the material for themselves to practise writing and for others to enjoy reading. The tutor has planned the work and a way into it – but kept free the space for how it will be done. (See 'Approaches' in Part C for more on planning.)

Individual learning plans for each student can address the gaps and issues identified in the initial assessment within the context of the overall objectives for the student and for the group, taking account of the course or the service. An individual learning plan should aim to:
- record the student's context and goals – what they want to learn;
- include a record of the initial discussions and the pre-course assessment;
- set realistic objectives in literacy and numeracy to be achieved during the learning programme;
- include the four cornerstones of:
  – knowledge and skill,
  – depth of understanding and critical awareness,
  – fluency and independence,
  – range of application; and
- provide for self and tutor assessment at regular intervals.[16]

Assessment

Assessment is about checking and noticing how things are going. It includes some sort of feedback. For active and expressive learning to be a real experience, this feedback needs to focus on encouragement, not correction. Like planning, it is something that needs to be done repeatedly.

As a framework to provide feedback on their learning, *Mapping the Learning Journey* (NALA: 2005b) enables tutors and

students to see both learning and feedback as part of a 'big picture', comprising the four cornerstones just referred to, of which the fourth, knowledge and skills, is made up of the following areas of learning:

- communication by speaking and listening;
- writing to convey information, ideas and feelings;
- reading with understanding; and
- using numbers to carry out everyday tasks.

Mapping the Learning Journey's 'holistic' view of learning points out that gaining new skills and knowledge in the classroom context may not, of itself, mean students feel able to change the way they deal with a literacy or numeracy situation in another context. A student may learn how to perform a certain kind of activity in literacy or numeracy and, within the cornerstone of skill and knowledge, they have accomplished something important; they have changed from being someone who could not perform this, to someone who could.

However, for a curriculum to be fully change-making, this student needs to feel that the change will occur for them in other settings: that their 'range of application' satisfies them, their 'fluency and independence' – along with an 'understanding and critical awareness' of how this use of literacy and numeracy forms part of an overall pattern.

Such learning does not happen in one class session. It happens over time. The story of Michelle offered in *Mapping the Learning Journey* (MLJ) helps us see this.

> *Michelle wanted to write her own name and address. She found it difficult to do this. Her tutor devised a simple cloze task. The main words were supplied, with some letters left blank. After a lot of practice, Michelle was able to complete the task and write her own name and address. With her tutor's help, she then moved on to a point when she was able to insert whole words, not just letters, to complete a more complex cloze task, still using the words of her name and address. At this stage, within the range of application, she was in the safe setting of the training centre and, in mapping her progress, she and her tutor agreed to leave this section blank on the MLJ form.*

Some months later, Michelle needed to fill in a passport application form. Her tutor persuaded her to get the form herself from the post office. While she did not actually fill in the form at the post office, she was persuaded to go there and get the form herself, rather than rely on her tutor to get it for her. In the classroom, she filled in her name and address without any mistakes. Her tutor helped her with reading the form. But she did the writing on her own. So here was progress, both in her range of application (she had fetched the form herself) and in independence.

Then Michelle told her tutor of an incident that had occurred around this time when she was out with friends. Someone had passed around a book of raffle tickets. To buy one, Michelle had to fill in her name and address on the ticket stub. She did this.

For Michelle, progress had occurred at each stage. But change in the holistic sense had only really happened once she felt able to carry out the literacy task in a setting that was not the classroom – the place where she usually did writing[17]. She had changed to become a person who could write her name and address in any situation. The work that she and her tutor had done together to achieve this is a good example of an effective curriculum for change. As a result of the 'rich' learning opportunities, Michelle had – eventually – been enabled to progress across all four cornerstones.

Within the framework of concepts and principles set out so far, the aim is **that all the activities offered to students over time should aim to be 'rich' – that is, relevant to the student's life and interests, related to situations that she or he could imagine, and set in a context she or he could recognise.** (It is not expected that all activities in every individual lesson should achieve this but it is something for tutors to aim for.) 'Rich' learning opportunities may need planning for across several sessions.

You will find further thinking on assessment in the next section under the role of 'Encouraging reflection', and more notes on certification in the examples in B3.

B2: Roles

In the practical work of promoting learning, the tutor has three key roles to play. In these roles, the tutor is alternately:

• exploring possibilities for learning – alert to the ideas and experiences that offer possible areas for development;
• being a teacher and guide – leading and being ready to adapt plans or assumptions as learning grows; and
• encouraging reflection – enabling the student to step back from what has been going on in the learning and reflect on it.

In this section there is an introduction to each role, with examples and commentary to follow.

1. Exploring possibilities for learning

In this role, the tutor has this kind of question in mind:

'What would the student find useful and interesting to learn here?'

As we have already seen, this requires the tutors and organisers to give time to promote dialogue and discussion. In the classroom setting, it means encouraging students to share ideas on topics, angles and approaches that would benefit their learning.

Active learning and discussion both require question-and answer work to be used effectively. There are times when it is important for the tutors to talk to students on their own about their interests in exploring particular topics or developing specific skills. At other times, it can be much more effective to make the topic one in which a whole group engages. In groups where there is often a mix of ability and purpose, some students find it difficult to speak up; others seem to find it hard to stop talking. If this seems to be a challenge, it can be useful to:
• agree ground rules for turn-taking; and/or
• appoint a couple of group member as timekeepers.

In order to move discussion away from something entirely tutor-led towards students learning to listen to and value each other's contributions, it is useful to encourage their attention to each other. There can be clear benefits for student learning in doing this, as this tutor found:

> *In one of my sessions, I used the simple technique of asking a shy female learner 'Is he right?' each time a more confident male answered a question. Both learners were highly amused by this and a questioning banter – 'Are you right? Are you sure? How do you know?' – developed between them. This triggered a change in the young woman from not trusting her own judgment, not committing to answer, and contributing little in the group, to enjoying a challenge and being willing to have a go. (Nieduszynska 2006)*

Studies into 'what works' in adult literacy and numeracy tuition have shown that good learning is helped by good discussion. To put it another way, talk is work. (More on this in *Context 2: Ideas and Research*). Facilitation is what a skilled tutor or organiser does, not only to explore possibilities for learning but also to get agreement on goals, plans and actions. It shuts out any chance of a 'know-it-all' teacher transmitting a body of knowledge to ignorant students and helps students to:

> *'…decide what they want to accomplish, reminds them of their responsibility in achieving it and encourages and helps them to complete an agreed task of activity.'*
> *(Prendiville 2004: 13-14)*

As part of a Back to Education Initiative (BTEI) summer programme in Listowel, Trassa O'Connor worked with a group of Travellers on a Storysacks project.[18] In this, she said, she saw herself very clearly as a facilitator, asking the group: *'What do you think? This is how I will do it. How will you do it? Let's get on with it.'*

She went on:

> *It was a mixed group. A few could read well enough. You really have to know the group. A lot going on outside is brought in. Half wanted to make sacks, half didn't. We discussed the pros and cons of buying stuff in shops or making things from home. I said we should try and make*

things so there is no competition. I explained and discussed this. About the third session, one said, 'I'll do it' – and they all did. (Trassa O'Connor, Listowel, December 2006)

At the start, many had not wanted to do the storysacks. Gradually, they came round to the idea, the clinch being when one said she would do it. We can't really know how the group arrived at this agreement. To know the answer to this, we would need to know not just what went on in the classroom, but what conversations and thinking went on between class sessions. What the tutor felt she was doing was 'facilitating' a situation where there would be 'no competition', where students could work on equal terms with one another. By 'really knowing' (and respecting) the group, she seems to have succeeded.

There are three main ways in which a tutor may apply this role. She or he **may explore what students already know**; **offer new possibilities and interests; or try out a different way of doing things**. We will look at each here.

Exploring what students already know

The social practice view helps us to remember that tutors and organisers are not the only people who know something about, and use, literacy and numeracy. Certainly, the tutor is the expert practitioner who 'models' ways of reading, writing and doing mathematical operations, but the students also have ways that they 'cope with' or 'manage' their literacy and numeracy purposes and needs. Tutors can be role models in showing the enjoyment to be had from actively exercising reading, writing and mathematical skills. Students can also be role models in sharing how they deal with literacy and numeracy events in various contexts. In an exploratory role, the tutor gives a focus to how they do this and whether they might like to do this differently, in what settings, with what purposes.

Listening out for this, within the social practice understanding, means tutors reminding themselves as well as students that literacy and numeracy activities go on outside the classroom; and also that, sometimes, students may be able to deal with literacy or numeracy situations in surprisingly successful ways, given the abilities they display in the classroom.

To gain insights of this sort, tutors need to be open to these possibilities. Nuala Lowen wrote to offer an example of this,

in how something a student called Sally said had shown Nuala a different light on Sally's maths abilities. In the classroom context, Sally had voiced a sense of inadequacy in helping her child with her school maths. Later, chatting with Nuala, it turned out that, in her home setting, she did not seem to have any trouble with another kind of maths:

> *'She told me that due to a recent power cut, the children were bored and they decided to play a board game, the Simpson's Monopoly. They had great fun. She was in charge of the money and giving it out.' (Nuala Lowen, Bray, Co Wicklow, December 2006)*

This reflects the difference between 'street maths' and 'school maths'.[19] People may use and be confident about significantly different mathematics in different contexts, and mathematics learned in one context will not always transfer to another. It also reminds us that exploring possibilities of learning means exploring what students already know.

The following example shows an exercise through which tutors and students can do this and, in so doing, generate ideas for further learning. The technique is derived from *Thinking Through Mathematics* (TTM).

> *The tutor encourages pairs of students to discuss mathematical statements, decide for each one whether it is always, sometimes or never true, and justify their reasoning. Then all the students share and discuss their ideas. The tutor facilitates the discussion to promote deeper understanding of the mathematical ideas and becomes aware of issues that may need further work.*

Interesting statements to consider can be created at all 'levels' of mathematical sophistication. TTM offers, for example:

> *'Numbers with more digits are greater in value – Max gets a pay rise of 35%. Jim gets a pay rise of 25%. So Max gets the bigger pay rise'; and 'If you divide the top and bottom of a fraction by the same number, the fraction gets smaller in value.'*

Tutors can also explore and validate what students already know, and support them to deepen their knowledge, by

initiating discussion about different ways of performing mathematical procedures, or simply by inviting students to count aloud in whatever languages are available to them. When students share and explain to each other their methods for doing subtraction or multiplication, they are likely to deepen their understanding of their own method; and where the method has connections with a particular culture, learning about those cultures is also likely to emerge.[20]

Where students simply count aloud from one to 10 using a variety of languages, the tutor can facilitate discussion about similarities and differences between the words, and together the group may be able to relate those to what they know about the historical development of the various languages. Counting beyond 10 is likely to lead to interesting discussion of how larger numbers are created. For example, students might compare the English derivation of 'fifty' from 'five tens' with the Yoruba 'aadota', which derives from 'twenty three ways minus ten'.

Offering new possibilities and interests

A second way to explore possibilities for learning is for tutors to offer new possibilities to students who are likely to have limited experience of the pleasure to be had in using literacy or numeracy. The curriculum for change model is there to offer them opportunities to move beyond the needs or concerns that they start with and discover new possibilities and interests. As we have already seen, one way to begin this process is to show students how much they already know or have learned. Tutors can then offer opportunities to students to move beyond this area and experiment a little.

Two examples illustrate this. Gaye Enright in Co Wicklow describes how Margaret Keating worked as a tutor with a group of parents taking part in a family literacy course. The group had asked her to take them through the same English exam programme that their children would be contending with. This was the first year of the three-year Junior Certificate course. Gaye wrote:

> *Margaret agreed with them to look at some of the poetry on the syllabus and through her introduction to poetry appreciation, the students became very interested in poetry. They had some lively group discussions. The poetry reading*

seemed to offer them a safe environment in which they felt they could speak of personal experiences. Margaret was flexible in her approach and a respect and trust grew between her and the group.

As the weeks progressed, she noticed that individual students were growing in confidence and becoming less dependent on her for direction. They began to express awareness of being able to grasp poetry in a way which had eluded them in their own schooling. While engaged with some of the syllabus items that their children were undertaking in school, the topic of accreditation and what is involved in examinations and assessment came up. Margaret told them that many of the tasks they had already completed could be included as material for an accredited FETAC course and that they could go on learning in the same way while building on this work. After discussion, it was agreed to continue meeting beyond the usual family literacy short course in order to complete a FETAC Communications Module at Level 3 or 4, leading to a FETAC minor award.

Poetry can be an invitation at any level of literacy learning.[22] The encouragement that poetry offers is that it is always concerned with rhythm and the spoken word. Learning to enjoy reading poetry was a big step for this group; feeling they were on the inside of the education system and dealing with an exam syllabus was another. Through getting a sense of what was asked of their children, they gained an appetite for achieving a certificate themselves.

Margaret's suggestion about organising their work for accreditation purposes met with evident interest from the students. What she did was show them how the learning they were already doing could be prepared in this way. Clearly, this would mean extra work – for her, as well as the students. But it did not mean having to change the learning and teaching they were doing already.

In the second example, tutor-trainer Jane Smith gives an example of this same approach with an individual student:

Mark had worked on a writing assignment created by his tutor to help him record events he wanted to remember in the upcoming week. They then looked to see how they

could map this work under writing in the 'Knowledge and Skills cornerstone' of MLJ. They agreed that Mark was at the top level of the beginner level of writing and they recorded a '3' in three of the elements and a '2' in the fourth (indicating that Mark was showing a skill level at the top of this level).

The important thing to notice is that the cluster of skills defined by *Mapping the Learning Journey* writing at beginner level corresponds to the learning outcomes specified for FETAC Level 1 in writing. So they could assume that Mark, in this one sample, had demonstrated that his writing skills were at the level required for a Level 1 portfolio. In other words, his work was 'accreditation-ready'. When they also mapped the task to the 'Process cornerstones' (which show how a task is carried out), this showed how it met the assessment criteria for the FETAC portfolio work, in that it had been done in a classroom setting (fulfilling the 'familiar context' for this level) with some phrases supplied by the tutor (as in the 'supported learning' expected at this level) together with others provided by Mark (showing his 'developing awareness of a role for himself in his learning'). Since – within these conditions – Mark worked independently on the task, the work also fulfilled the FETAC criterion for this level of 'substantive achievement on his own.' At this level, FETAC encourages repetitive similar tasks to provide evidence, so Mark could complete subsequent pieces of work in the full knowledge that he would be working towards a minor award in writing.

Exploring possibilities for learning in this way means tutor and student together exploring possibilities for demonstrating the student's progress and achievement. We now come to a third way of exploring these possibilities.

Trying a different way of teaching and learning

Teaching and learning has to include planning but, of course, tutors have to adjust and adapt all the time. This point in the cycle – where a tutor renegotiates, agrees and plans what to do next – is one that has to be returned to, sometimes sooner than expected. The plan in the head that worked with one group of students is a complete failure with another. The idea you carefully prepared works less well than you thought it would. This story shows a tutor being willing to give up the plan he had started with and finding a different way to work for the same learning outcomes.

Teaching and learning ✏

Agree learning plan
– explore possible animating themes;
– identify learning outcomes.

Review and evaluate 🔍

Record learning
– celebrate learning achievements.

A tutor had spent much of Monday morning trying to get his students to tell each other what they had done at the weekend, with little success. Eventually, he moved on to the next item in his plan for the session: the teaching of telephone skills. Provided with 'props' in the form of two disconnected telephones, one at each end of the long table, the students were asked to dial each other and then carry on a phone conversation with a partner at the other end of the table. 'What will we talk about?' asked one. 'Ask about what you did at the weekend,' came the reply from the tutor. For the next few minutes, the students did just that. (Reported by John McGrath, North Kerry, March 2006)

Both the exercises that the tutor had planned were intended to improve communication skills. A telephone conversation appealed more to the students than just talking about their weekend. Was the difference only about the fact that this time the 'props' gave more of a sense of theatre about it? Was it simply more fun, or was it a more active exercise, likely to feel more relevant to real life situations than the first one? Either way, the result meant an exercise that the students evidently enjoyed and one which could also be used as evidence (if appropriate) for them to achieve a FETAC Level 1 learning outcome in listening and speaking:

'the student will be able to communicate about the past, present and future activities'.

2. Being a teacher and guide

In the role of teacher and guide, the tutor is thinking about questions like: *'What kind of objectives do I have for this?'* and *'What kind of learning outcomes do these offer students and what strategies would help us achieve them?'*

Alert to student interests and ready to adapt to the learning moment, the tutor's task is to plan and monitor learning and support and challenge students – ready, if necessary, to abandon carefully planned activities. What she or he has in mind is learning – and 'outcomes' and 'goals' to clarify what kind of learning. We will look at both of these now.

1.) A 'learning outcome' states what a student will have learned by a particular moment. The focus is on what she or he is now able to do and the word 'learn' is not usually used in the

outcome phrase. So a learning outcome usually begins with the words: 'A student (or learner) will be better able to…' Strictly speaking, a phrase to indicate timing is needed that identifies a moment when this will have been achieved. The learning outcomes of a lesson plan, for instance, might say:

'By the end of this session, the student will be able to…'

The learning outcomes of a course or programme, on the other hand, would say: 'By the end of this course, the student will be able to…' It helps to write these fairly precisely and to specify not only what the learner should be able to do but also the conditions which apply and the standard expected. For example:

'…the student will be able to write a short (condition) postcard (skill) without any spelling mistakes (standard).'[23]

Tutors often think of learning outcomes as only to do with accreditation. They are actually useful tools for planning and review of general use and value. The key to writing them is to use words that express them as something which the student can show to someone else. This means that words like 'know' and 'understand' are not appropriate, since knowledge and understanding is something inside us. More appropriate are words like: identify, use, name or list. These learning outcomes for Level 1 reading (adapted from those written for Level X FETAC Certificate in Communications[24]) could be further adapted to fit any student's learning plan, and be helpful to look at after a period of time as something against which to check the student's progress.

By the time they submit their portfolio, learners will be able to:
i.   recognise some familiar words independently;
ii. interpret some common symbols and signs in familiar contexts;
iii. demonstrate awareness of text conventions, print material and the alphabet;
iv. make sense of simple personally relevant sentences containing familiar words;
v.   use word identification strategies;
vi. identify the nature of familiar documents.

Notice those verbs and verb phrases: recognise, identify and so on. It would be worth asking yourself whether you agree that they are actions that could be shown to someone else).

2) Goals

In helping students to set goals, the acronym 'SMART' is useful. It refers to the smaller steps that students need to take to move towards their overall aim. For students to gain a sense of success, these steps need to be spelt out in a way that is helpful. For example, a student who wants, in general, to be able to 'write letters' could, with careful discussion, arrive at an interim step expressed as:

'By July, I will have written and sent a letter to my brother without help.'

This would give her a target with all five of the 'SMART' features. It would be:

Specific (a letter to her brother);
Measurable (without help);
Achievable (it's only one letter);
Relevant (she has said she wants to write to him); and
Time related (by July).

Helping students to set goals and targets that are all of these things takes time, skill and experience on the part of the tutor. Their value is in offering students criteria for success that they have set themselves.

Specific goals and targets can provide:

A clear outcome		A clear range	A clear situation or purpose
I will be able to	use	capital letters for people's names	for the members of my family
	read	the sports page	to get the racing results
	add	three 2-digit numbers	to check the hours I have worked

Measurable targets, that is provide a criterion for their achievement which is specific, as against a large and unspecified goal such as 'to improve my spelling'. Making them **achievable** means giving outcomes which will allow the student to recognise his or her success, such as *'I will be able to spell the words I need for…'*

Relevant material and tasks will always generate more energy than those which seem to have no rhyme or reason, and **time**-related wording provides a timeframe that the tutor and student can agree is realistic and manageable within the student's abilities and circumstances.[25]

All this seems to suggest that planning and goal-setting is an entirely individual matter. It is important for this to be so, but working with groups to help them identify goals and plans is an important part of student learning too. For the scoping study, one group of students reported how their tutor accomplished this:

> *'As a group, we work together with a flipchart and this is put up and we work individually with our tutor to make out a personal plan.'*[26]

From another meeting of students,[27] a very active culture of participatory planning was evident, with positive comments such as:

> *'I love planning because you end up with a plan in your head'* and
> *'I like being part of putting my programme together.'*

Planning is certainly about small steps (or SMART targets) but it is also about seeing beyond the detail or the single session. It can be a sketched outline of a whole course as much as a detailed lesson plan. One student described the collaborative approach used by his tutor to work on this with him:

> *'Myself and my tutor would sit together and make out a four to five week learning plan and then we would review it and change some materials that weren't interesting or were not effective.'*[28]

Tutors who are both teaching/guiding and 'exploring possibilities for learning' will encourage students to be guides themselves, taking responsibility for the learning they find it useful to do. Tutors can convey this encouragement from the moment they ask the new student what they know already and what they want to know.

The following are some of the questions that a numeracy tutor said she uses for this purpose. She certainly would not fire them

all off in the list as they are here; rather, she would use them at intervals during a careful conversation, taking time for the student to respond and contribute his or her own questions:

Tell me about you and maths. How are you with it? What's it like?

What do you think maths is? How do you think you are with maths? How do other people think you are with maths?

Some people say maths is just for brainy people or swots. What do you think yourself? If you could be really good at maths, what would you like to be able to do?"
(Catherine Byrne, email, April 2007)

Preparation:

Assess learning aims
– their learning purposes;
– their strengths and areas of development.

3. Encouraging reflection

For this role, key questions are:

'How did this go? What was the quality of this experience?' and *'What would make it better now – or next time?'*

This section focusses on three kinds of reflection:
• reflecting on learning (self-assess);
• reviewing this learning against goals and targets, commenting on the quality of the learning programme (review and evaluate); and
• contributing ideas as to what might enhance the programme, for them and others (create and change).
We will look at all three here.

Self-assess
As already indicated (in B1), assessment is something that should form a continual part of teaching and learning. Discovering what students want or need to learn is part of 'initial' assessment, and may take more than one conversation over a period of time. Observing (and recording) what kind of learning is happening, affirming strengths and identifying areas for development are all part of 'formative' assessment. This involves tutors actively listening to students (as discussed in A2) and using expertise to observe and give constructive feedback on their achievements or obstacles.

This formative assessment, or 'assessment for learning', is a process in which tutors need to do more than observe; they

need to ask students how they think they are doing and actively engage them in sharing what they think they have understood. As one researcher put it, it is through questioning and student feedback that a tutor is able to:

> *'…gain insights into problems with understanding and then adjust the teaching programme accordingly.'*
> *(Ecclestone: 2006)*

Being challenged to review is a key part of helpful self-assessment. Sometimes this can mean helping students to see that the way they already deal with literacy or numeracy is a strength, not a weakness. If they ask someone for help, or copy a difficult spelling from a label, or take the problem home to work on at more leisure – these could all be seen as successful strategies to overcome a difficulty, rather than a failure to do so. Constructive feedback from other students, as well as from the tutor, is invaluable for encouraging learning.

For learning to be effective, this kind of process needs to go on all the time. It is an informal process but it is a regular and purposeful part of the curriculum for change, giving students a language to express what they're doing. It means saying things like:

> *'Let's go back to where we thought we'd get. How do we think we're doing?'*

It means giving time for the student to answer the question. It also means students being encouraged to know their strengths and weaknesses so that they can say:

> *'I'm good at this, but I need to work on that.'*

And it means students being encouraged to celebrate their achievements by in sharing them with the class, their family and their communities.

Review

Student self-assessment is an activity that should happen at every session. Reviewing progress is best done at longer intervals: once a term, perhaps (*Mapping the Learning Journey* suggests three times a year). Learning to learn is an important part of the whole commitment to adult basic education. (This process can itself be recognised through FETAC accreditation.)

As already indicated, part of this work involves the tutor asking questions. An important part of it entails encouraging students to do so, too. *'You can ask anytime here, ask the instructor on the street if you meet them,'*[29] said one student. For many students, this can be a new and important experience. As one put it:

> *'When asked by our tutors what we were interested in covering, we were all able to have our say. At school before, you couldn't ask for anything, but it's different here.'*[30]

Reviewing and evaluating are an important expression of the principles of good practice identified in A2. To work well, both need to be worthwhile for the students and taken seriously by the tutors.

Evaluation asks the question:

> *'What did you think of this session (or course)? How could we do it better next time?'*

To work well, participants need reminding of what they had originally hoped for or expected. A simple form of evaluation question can then be the three-part:

> *'What would you like more of, less of, or the same?'*

An open-ended question can be useful; one tutor invites participants to use five words to sum up a session. Once every so often, a longer group exercise (such as described in C3) offers an opportunity for students to discover and express their views on the learning experience. A good idea for groups is to offer students a 10-minute meeting before the end of a session, and for the tutor to leave the room. This needs preparation. It works best when students have come to know it will be offered. It can be presented as an opportunity to practise running meetings, offering as it does an experience of turn-taking, listening to each other and finding a way to report back.

Evaluation is an important way to find an answer to the tutor's second question:

> *'What learning is going on here – and what can I say (or do) to help it grow?'*

It is not enough to set up a situation where students are asked the question, however. In order to pay attention to the answer that comes up, tutors and organisers need to give time to look at what students actually say, to go over any written replies or notes of discussion and to spend time on their own honest reflection. Dublin Adult Learning Centre (DALC) provides all their tutors and co-ordinators with a guideline on carrying out group evaluations. This starts by stipulating that no tutor should undertake an evaluation with a group they already teach. The aim, for the Centre, is to explore the key question for their standard quality check, namely: how good is the service?[31] The following extract from DALC's guideline gives an idea of how it combines two evaluation approaches – structured discussion with a questionnaire:

Guidelines for group evaluations
If your group is being evaluated please give the tutor evaluating your group a list of what the group has covered in the year.

If you are evaluating a group, this is the drill:

1. Brainstorm with the group what they have done in the past year. Put their feedback up on a flipchart…If there are areas they have forgotten, you can prompt them to see if they remember.
2. Then ask the following questions to discuss as a group. Once again, put the comments up on the flip chart: (a) has coming back to learning made a difference in your life? (b) would you recommend it to a friend? (c) is there anything you would change?
3. Hand out the questionnaire…Read the questions with the group. Ask them to write yes or no…Explain that the tutors will help people who find it difficult to fill out.[32]

The questionnaire is divided into three groups of questions, asking for three kinds of answers. The question groups are about the students' own learning, the teaching methods and the course in general.

The types of answers invited from the student respondents are the three questionnaire categories of yes/no, ratings and open.

For example:

Yes/no: Do you participate in the group?
Ratings: How do rate your class? Please tick a box (poor, fair, good, very good, excellent).
Open: What did you find most useful or helpful on the course?

It is not surprising that adult basic education students, like anyone else, do not always find questionnaires interesting or easy to complete. As DALC finds, student feedback is largely positive with the only written criticisms being 'we didn't do enough reading' or 'the work is too easy'. The process of reflection offered by creating the time for discussion, however, can bear longer-term fruit. It is a commitment to the principle of students' entitlement to participate and direct the learning.

(3) Create and change

From time to time, tutors and organisers in adult basic education work together with students to plan outings, visits or projects, which may need thinking ahead by as much as months or a year. Ideas for these projects or trips very often originate with a planned session of discussion between tutors and students. Less often, perhaps, but with the same spirit of attention to student interest, the idea may come out of an invitation to do something different. The first of two barrel top wagon projects began with such an invitation. The second grew out of a need to find a new topic for learning and the inspiration offered to one group of students by the work of another.

Both projects, one in Cork, the other (later, and inspired by it) in Clonmel, involved groups of Traveller students designing and building traditional barrel top wagons and putting these on public display. Each involved a year's programme of learning and work overall. This is how the first one began, in the words of Mary O'Sullivan, organiser with the Cork Travellers' Literacy Scheme:

The 2005 Cork European Capital of Culture people asked us to come up with a project. We were told to think big and to think of something that would leave a legacy within the group. Bridget Carmody, a Traveller woman, came up with the idea of the barrel top wagon. We talked to lots of Traveller groups about it. The idea generated energy and sparked off memories of when people lived in barrel

top wagons. Even though we weren't aware of it, it pulled everything up. It pulled up issues about home and freedom of travel, issues affecting the community. The high level of participation of Travellers evolved into a whole learning process that is actually ongoing. (Interview with Margaret Murray, June 2007)

The Clonmel Traveller men had been attending the adult literacy service for over a year, working on their literacy and numeracy skills, with a particular interest in passing the driver theory test. In a meeting to discuss the next step in their learning, it was agreed they should take a trip to Cork to visit, among other things, the barrel top wagon built by the Cork Traveller Women's Network.

During their trip, the Clonmel Travellers were impressed by the activities and projects they saw. As one put it:

> *'Visiting Cork and seeing what could be achieved gave us the idea that it was something that we could do ourselves.'[33]*

Back in Clonmel, organiser Mary Roche and tutors, with FÁS funding, translated this idea into a learning programme of writing, reading, buying and selling, community research and organisation, with the aim of completing a barrel top wagon by the following year. The result was displayed in the St. Patrick's Day Parade a year later.

Both projects grew out of tutors listening to and respecting the cultural concerns of the Traveller women and men recalling their childhoods. From that attention and respect came the suggestion of wagon-making as the core of their future learning. A key part of the process meant giving time for student reflections to become curriculum plans.

Review and evaluate

Review context
– check if different since starting this learning;
– notice any changes in literacy and numeracy uses.

Record learning
– celebrate learning achievements;
– identify areas for development.

Evaluate service
– reflect on student's experience of it;
– discuss possible improvements to be made.

In this section we have looked at three key roles that tutors of adult literacy and a cycle of curriculum development: exploring possibilities, being a teacher and guide, and encouraging reflection.

We have seen that, for productive learning to take place, the skilled tutor moves between these to discover and develop student interests and abilities.

B3: Learning and teaching

Of all the moments in the curriculum development cycle, the one described below is deceptively small.

In reality, this moment involves tutors applying all their skills and intuition to work with what students are telling them, to discover what may be the topic or theme which most 'animates' them – and then to link to this theme some learning that could be genuinely change-making for the student. It involves, too, a balance between planning and improvising. When it works well, it can produce some of the most creative moments in adult basic education work.

In this section, we look at four examples of this negotiation, followed in each case by a commentary analysing the learning that resulted. In each case, the tutors involved are working strategically (more on this in Part C). In their minds are the guiding principles we have outlined. Their priority is not to carry out activities they have planned, come what may, but to enable the personal and social learning of a curriculum for change. Their strategies for achieving these mean that they are moving between the tutor roles to discover and develop student interests and abilities.

The first is a story of how curriculum development took place in a 10-week course with Traveller women,[34] followed by an analysis of the literacy and numeracy activities which the participants engaged in and the learning achieved.

> **Teaching and learning**
>
> **Agree learning plan**
> – explore possible animating themes;
> – identify learning outcomes;
> – negotiate and agree learning plan.

Responsive teaching

Responsive teaching: the Lourdes plant
Margo Kelly [City of Dublin VEC]

Two tutors work with a group of women from the Travelling Community, teaching literacy and numeracy sessions two mornings a week. They found that there can appear to be a lack of 'interest' and a low level of motivation to expand interests and to develop new skills. This is, the tutors think, for a range of reasons related to social, cultural and educational issues. There was a need to find ways to trigger interest and engagement in an organised learning project.

Tea break talk

During a tea break early on in the course, the tutors overheard a conversation among some of the women. They were talking about a particular plant with 'miraculous powers'. The women called it 'The Lourdes Plant'. Lots of the women joined in and seemed to know something about this plant. (This included the belief that if a husband and wife had a quarrel in front of it, it died; if children misbehaved in front of it, it died or it began to look unhealthy. It protected the trailer from fire and from sickness).

The tutors – one of whom had expertise in gardening and community horticulture – also joined in the conversation. Some of the women had the plant and some didn't: all wanted to have it after hearing the stories. Among the women who had the plant, there was a fear of something happening to it and it dying. This was stopping the women doing anything to the plant apart from a little watering. They didn't re-pot the plant.

The conversation continued for the rest of the morning's session. It developed into a conversation about plants in general. The women were very interested and talked about the kinds of plants that would suit their homes and immediate environment. One of them agreed to bring her plant to the next session to show people what it was like, and also because it needed to be re-potted and she was reluctant to do this herself. They also agreed that maybe they'd take cuttings from it – depending on how strong and healthy the plant was.

Much of the knowledge and language involved in this initial discussion was new to the women. Nobody had known what a 'cutting' was, what it meant to say 're-pot' a plant. The word 'soil' was new and technical (different words being used in the women's everyday vocabulary), as was the knowledge of soil/muck/dirt as a life environment containing all sorts of organisms.

Interest grows

Mary brought in the plant. The tutors realised that it is commonly known as 'The Wandering Jew'. This was good news because it's a very hardy plant and the tutor knew there would be a100% success rate: the plant was healthy and

suitable for cuttings. The group made a plan. They listed things to be bought in the gardening shop in order to re-pot the original plant, take cuttings and to pot those. After the break, five of the women and one tutor headed out to the gardening shop.

The rest stayed with the other tutor and got the room ready for the work, spreading newspapers for the potting area and using computers to make labels for the pots. In the shop, the women got the pots, the soil, the watering cans, the gloves and other items on their list. None of the women had been in a gardening shop or flower and plant shop before. They were fascinated by the colours. They exchanged views on plants they would like to see in their own gardens or containers.

They went back to the centre and joined the others. The tutor demonstrated how to take a cutting and each woman took a cutting from the original plant. The tutor demonstrated how to pot the cutting and each woman put three cuttings into each pot. They then put the labels into the pots and each woman wrote her name on the outside of the pot. They finished by watering the plants. In the course of doing all of that, the tutors chatted with the women about 'soil', 'nutrients' and the importance of light and water. They noticed that the women didn't start looking at the clock, or asking 'can we go now' or 'is it finished?', or any of the usual wanting-to-get-away routines. In their evaluation of the morning session, it was clear that they had thoroughly enjoyed the session and were keen to learn more about gardening and plants.

Making the case for funding
The next session started with the group checking the young cuttings (which they had left on the windowsill of the groupwork room). The group discussed continuing to work with plants as the core of their programme with the literacy tutors over the next 10 weeks. They discussed what it would cost and the need to put together a costing to give to the director. They agreed to ask the director to come to a meeting of the group at which the members would present the aims of the horticulture project and outline all the advantages to justify the costings. They spent the rest of the session working on these.

Before the third session, the tutor called the director of the centre and gave her the bones of what had happened and asked if she would attend a meeting of the group so that the group could present a case for funding for a module on horticulture. The director agreed to the tutor's proposal that the women should cost the project themselves and meet her to put in the funding application.

The director came to the meeting; the women made their case; the director agreed to the funding; and the project proceeded.

The learning
The project involved planning what to do, choosing plants in stock and visiting the garden shop to get the supplies. As well as improving the work environment through planting and building their FETAC Horticulture portfolios, the women began to apply what they were learning to their own homes – introducing planting, sharing the knowledge and activity with children and persuading husbands to put up hanging basket brackets. As the weeks went on, their conversations and the questions they were asking showed their growing interest in and understanding of gardening and of the environment.

While five of the 16 women in the group completed portfolios for a FETAC Level 3 and others were working towards this, an equally important outcome was the confidence evident in the way that the women engaged in a consultation process with Dublin City Council which, coincidentally, had been making another attempt at that time to engage with residents in the site where they live to improve the site. For many weeks the women had been talking about the burning of rubber in a corner of their housing complex which had been affecting the health of old people and children. At first, the women did not talk of going to this meeting. It was not something that had instantly sprung to their minds as the thing to do. They usually left meetings for the men to go to, and the meeting would coincide with their literacy session.

Invited by the tutor to think and talk again about the problem that concerned them and about what they could do about it, the main response they came up with was to go to the meeting. They were making the connection between what they were learning and doing in the class and in their homes

with what the council was trying to do. They thought that if the entrance to the overall site was sorted, it would be something good for everyone to enjoy.

It was agreed that instead of attending the centre that morning, they would go to the meeting. They were the only residents there (although two other residents gave apologies – attendance was difficult on that particular morning for others on the site). At the meeting, the women took full part in giving their views and suggestions to the council representatives.

Commentary
As this account illustrates, tutors of adult literacy and numeracy need to be (and be allowed to be) flexible in how they plan and lead programmes, so that they can 'take the ball on the hop' and be responsive to what might catch the students' interest. Tutors have to be alert to possibilities, noting and building on the casual interests emerging out of informal conversation, developing a series of opportunities for learning and extending participants' experience of and skills in literacy and numeracy.

The idea for the programme had come from tutors facing a problem of students' apparent lack of interest in adult basic education learning. Being alert to 'animating themes', they had listened to students' informal conversations, shared information – and seen the possibilities for integrating literacy and numeracy development with the students' interest. What might have looked to funders like 'doing gardening', with little relevance to student learning, opened up an array of learning.

In addition, the story offers another example of the link between literacy, personal development and social action (as discussed in A2). The fact that the women 'wanted to attend the meeting' called by the council was something new to them. In preparing for and attending the meeting, they engaged in a rich range of literacy and numeracy activity. When it came to the event, they were the only representatives of the community present; the meeting agreed a way forward to deal with the environmental problem.

We can use *Mapping the Learning Journey* (MLJ) to help us analyse all of this. Individual students may have been working at any one of the three MLJ levels (beginning, middle or upper). By looking at the descriptions of what they did and the cornerstones in MLJ, we can see how the learning of all of them could be linked in the following way to each area of learning within the assessment framework that MLJ provides.

1. Fluency and independence
Students practised and used the four skills in a meaningful context, with repeated activities in all four areas and a gradual decrease of tutor guidance (using peer support by pair and small group work on reading, writing and calculating tasks, introducing individual work as confidence increased).

2. Range of application
There was an organic move from an informal setting and style of discussion, through non-formal to formal; and from familiar setting (group, tutors) to less familiar (centre manager) to unfamiliar (council representative and formal setting).

3. Depth of understanding
The work entailed:
– students applying specific vocabulary;
– how words can have different meaning in different contexts;
– communication processes;
– different styles and registers for different audiences and purposes;
– basic awareness of the environment;
– increased knowledge of plants and the living environment and of the effect of the environment on people's wellbeing;
– environmental responsibilities;
– rights and roles (their own, as individuals and as a group, and those of the immediate centre community and of the local council.

At the same time, the students were increasing:
– an awareness of their own knowledge as individuals (through the telling of stories and sharing of traditions);
– the value of the collective knowledge, experience and folklore of the Travelling Community;
– their ability to influence decisions about the programme and to have an active learning partnership with the tutors.

4. Knowledge and Skills

It's worth detailing the progress in the four areas:

Oracy:

– developing use of effective spoken communication practices with each other and tutor both during informal and focussed discussions;
– during more structured group discussions, preparing the 'case' to management; thinking strategically, negotiating, discussing the arguments;
– with each other, with management, with strangers (such as the gardening supplies shop staff) and with the local council representative outside of the centre.

Reading:

– labels on the plants and equipment in the shop; names on packets of bulbs and seeds; reading instructions (seeds, plants) and relevant sections of gardening books and catalogues; reading notes (group-generated text or 'script' for the meeting with management) as part of preparing to make a good verbal presentation of the case; reading (and making) diagrams and designs as part of planning where to plant or position what, at home and in the centre.

Writing:

– shopping list for equipment and plants; notes (some full sentences, others phrases, others key words) in preparation for the meeting with the manager and the meeting with the council; for some, writing for FETAC portfolios; writing labels with names of plants and with their own names.

Numeracy:

– calculating the number of plants needed; cost of the project to prepare funding presentation to manager; how much to bring to the garden shop on outings for purchases; developing concept and language of measurement, space and shape (where to position the plants, in relation to each other and to surroundings); helping to work out a realistic timescale for the project; keeping a gardening diary and making a gardening calendar.

The planning of these sessions had taken an exploratory form, with tutors participating in an informal discussion about a shared interest. Across the three sessions, new knowledge

and skills in literacy and numeracy were gained but the tutors had not formally planned which ones these would be. From all this experience, the women had an opportunity to gain a sense of being agents of change, of having a voice. Personal development, social action and literacy development had gone hand in hand, facilitated by tutors integrating literacy development into the students' real-life interests and concerns.

Our second story shows another tutor, Mary Walsh, a tutor in Listowel, working to create learning opportunities from her student's interests.

Learning possibilities: cars and driving theory
At our Community Training Centre, students aged from 15 to 19 undergoing training and possibly a pre-apprenticeship course tend to associate any learning with school – not a positive experience for most.

As literacy tutor there, supporting four other tutors, I try to overcome this by making the learning situation as different from their memories of school as possible. My priority is to take the fear out of learning and replace it with fun and enjoyment, using language appropriate to the student, being empathic to what is happening in their life and ensuring the learning is relevant to them, (for example, to help convey the idea that the learning is a team effort, I tend to use 'we' instead of 'you' and 'I').

As I am dealing with teenagers, I try to be enthusiastic, energetic and motivated myself. I also like to camouflage the literacy and numeracy they are learning to get them to learn without realising. What I did with David is an example of this.

David is 17 and interested in buying a car. One day he was sitting outside the waiting room, looking at the newspaper. When I went over and saw he was looking at advertisements for cars, I asked him about it and learned he wanted to buy a car and learn to drive it. So I used this interest as a basis for his learning.

We used the Driver Theory Test on the computer for practice. David and I read the questions and the possible answers. We did this many times, David pushing himself

each time to surpass his previous result until he passed and was ready for the real test. We practised filling in the form and, when that was ready, we applied for the test. We then progressed to the Provisional Licence Form and spent time getting familiar with that and filling it in. (This form is difficult enough for anyone with literacy difficulties.)

We were ready to look for a suitable car. We picked out appropriate advertisements in Kerry's Eye *newspaper, progressing to* Buy and Sell *and using the index to look up cars within our price range. We used the internet to look up cars on* Auto Trader. *We read different advertisements, getting familiar with the language and the abbreviations, etc.*

From there, we discussed car finance and how to get a loan. This provided the opportunity to introduce numeracy to the learning. David assessed his financial situation, made a list of all expenditure for the week, realised how much he had left and decided how much he could afford to pay back for a car. We discussed the expense of putting a car on the road, insurance, tax, maintenance.

Commentary

This is an interesting picture of a tutor working as guide and teacher, 'camouflaging' the teaching and learning for a student having to overcome barriers as to what kind of experience learning could be. In all the work she persuaded him to do, David was using and developing his literacy and numeracy skills almost despite himself, without any direct association to learning. In doing this, Mary describes herself as working to create a balance of equality and guidance. She tells us that in speaking, she stresses the 'we' of their work – and in this text, she does the same. The two of them are working on the project side by side until, at a certain moment (and in one sentence of her account), David assesses his financial situation, lists his expenditure, realises his situation and decides what to do about it.

By showing a genuine interest in his enthusiasm, Mary was able to draw David into literacy and numeracy activity almost by stealth, incidentally. This is basic education being put to use; it is also literacy and numeracy as it occurs in social practice.

Teaching and learning

Agree learning plan
– explore possible animating themes;
– identify learning outcomes;
– negotiate and agree learning plan.

Plan strategies
– topic-based learning;
– focussed literacy and numeracy work.

For David, Mary implies, learning these things in a more formal way would have held no attraction. For his learning to feel relevant and alive, the tutor as guide needed to be guided herself by what he told her of his interests. She had to work with the opportunities she was given, within the constraints of his experience and the setting she is working in. The result was an equal balance of numeracy and literacy being applied to solve the issues he wanted to explore: the relative costs of different cars, the correct answers to driving theory questions, the budget he would need to possess and use a car. For his learning to be fully holistic, David would need to be able to show the skills he used to explore these in a range of contexts, and with a fuller degree of independence. He is on the way.

Everyday literacy and numeracy events can contain challenges for unpractised people. The arrival of an electricity bill is one such event, as this account from Lillian Hahessy suggests. First, she sets out a picture of Angela, the student. She then provides an account of the problem that Angela faced in dealing with the estimate she received for her electricity use which she brought to her literacy class. Lillian goes on to describe what they did together to resolve it. Lastly, Lillian offers an analysis of the learning involved in Angela's work with her on this.

Finding the evidence: the electricity bill

Angela is a single woman in her late forties. She has a mild intellectual disability. She lived with her mother until the mother died about 10 years ago. She now lives alone in the family home. She is very independent and participates well in the community. She attended a 'special school' for her secondary school years.

Angela now works in a training centre for people with physical and intellectual disabilities. The centre provides courses in personal development, computers, crafts, etc. Angela actually works in the kitchen as the centre has a restaurant which is open to the public. The people who attend the centre also work in the restaurant under supervision. Angela would be seen as one of the senior members there. This year, she also started work one day a week in a local business. This is seen as a progression into the wider community. She works in the café here also. She loves this day where she meets a whole different set

of people. Her work in both places is mainly making salads and sandwiches and she also helps with the clearing up and washes up.

When Angela's mother was alive, she used to read with her mother's help but after her mother died Angela stopped reading until she came to adult learning classes. Angela's house is an old house where the meter is inside the house and when the man comes to read it, she is always at work. The norm then is that the man drops a card in the door to say he couldn't gain access and Angela could read the meter herself and ring in her reading to the free phone number printed on the card. If she didn't do this, her next bill would be an estimate. This had happened quite a few times before Angela brought in the card to show me and explain what it was all about. I explained the process to her, why it is important to have an up to date reading, where to find the meter, which numbers to read, etc. I then explained to her that when she rang the number she would probably get a voicemail message. We had a big discussion about this, what she would probably hear, etc. We then wrote down the information she would need when she made the call, her name, her account number and the reading. We practised this in class and discussed what might go wrong.

The next time she received a card she went through the whole process but had left it too late. I hadn't stressed that this needed to be done as soon as she got the card. She had left it about a week and still received an estimated bill. So then we had a discussion about computer-generated bills and how, if she didn't ring her reading in straight away if wouldn't be included on the bill.

All of these elements added up, as we can see, to not just a literacy event but a numeracy-literacy event combined: part of a system of recording and reporting consumption that an industry requires of its customers.

Commentary
Once again, this is a tutor prepared to adapt her plan, explore possibilities raised by the student's concerns, guide the student to develop her skills and offer assessment possibilities to show the learning gained.

There is much in this story to provide an opportunity for tutor and student to work together to find evidence of Angela's learning. Individual elements suggest material to satisfy several Specific Learning Outcomes (SLOs) in FETAC Level 3 Communications and Maths.

Lillian suggests here how, if the activities that Angela needed to do at home were practised in class, this work could be submitted as evidence of her learning in a FETAC folder.

FETAC	Activity	Satisfying these SLOs
Communications level 3	Reading the bill, recognising the ESB symbol	2.1 Interpret common signs and symbols
	The phone call recorded in class as practice and submitted as audio tape	3.1 Extract main facts from a spoken source 3.2 Start and maintain a conversation
	Reading the card delivered in the door; reading the meter; reading the bill	4.1 Use a range of reading techniques e.g. scanning, skimming 4.2 Respond appropriately to everyday visual and written materials 4.3 Locate information in a range of reference sources
	Writing a reminder note to make the phone call to ring in her meter reading	5.1 Use writing to carry out everyday tasks
Maths level 3	Reading the meter Reading the bill Adding/subtracting units of electricity	1.3 Round off natural numbers 1.4 Add natural numbers 1.5 Subtract natural numbers 1.8 Apply mathematical operation needed for practical use

Other possibilities would be:
- writing out the steps for completing the whole activity of reading the meter and making the call a student (satisfying SLO 5.3 – write simple instructions);
- a reflective piece on this whole activity (satisfying SLO 7.1 – discuss ways in which information technology affects everyday life);
- the student reading this piece on audio tape (satisfying SLO 3.5 – express personal opinions);
- if she described to others in the class how she had made the phone call and that was recorded on tape, that could satisfy SLO 3.3 – describe events, procedures and processes.

There are many opportunities to make links between the student-directed learning activities and the learning outcomes needed for certification. Tutors need to help students stand back from learning activities like those in this story and discuss with them the opportunity for showing their achievements in a form that would help towards a certificate. It means tutors being able to see their roles of exploring, guiding and encouraging reflection in combination.

Need and context: maths in prison

Our fourth example shows a tutor, Catherine Byrne who works at Wheatfield Prison in Dublin, finding her way into what a student already knows about numeracy, 'reclassifying' the knowledge he already has to make him aware of this. We see her, too, reclassifying the idea of him 'needing' (or not needing) to learn numeracy, identifying possibilities for him to extend this knowledge and occupy his mind in a prison setting.

Numeracy: getting started

My principal approach to numeracy and maths is to focus on what they know, see what they can do and show that that is already maths – thinking of it as applied maths (as applied to real life), focussing on numeracy in tasks that are not exclusively numeracy. It is like an image of fishing or sieving: I try to catch information as it goes through and see how it relates to maths. It is an attempt to reclassify existing knowledge: 'So you were a fitter? You must be great at managing numbers' – or see if they did DIY or cooked. I aim to listen to the story and reframe the details to show how much they know – in this case, about maths.

Teaching and learning 🖊

Agree learning plan
– explore possible animating themes;
– identify learning outcomes;
– negotiate and agree learning plan.

Plan strategies
– topic-based learning;
– focussed literacy and numeracy work.

John came in to the Education Unit to do maths one day and when we started chatting he told me he had trained greyhounds. He talked about how drugs were used to fix races and the money that was involved. He knew how certain drugs could speed up a dog and some would slow down a dog and by how much. He knew how many dogs were put down each year. He knew that there was demand now in other countries and that Irish greyhounds could in the future go abroad to be re-homed after finishing racing. He told me about the complexity of the betting and fixing system and explained some of the detail about the effects of drugs on finishing lengths and times.

John didn't think he was any good at maths. When we talked about the maths skills he had just outlined – measurement, comparisons, percentages, money, distance, body weights, statistics, probability (to name a few) – he was surprised to think that this was maths. To John, maths was in books. He was on a short sentence. He attended class for several weeks before moving on.

Commentary

As a numeracy tutor, Catherine was in a good position to be a role model of 'applied maths'. In this conversation, she was trying to show John that he was, too. The context of this conversation gives an added purpose to this. As a prison tutor, Catherine had experience of student-inmates finding maths to be a useful occupation to pass the time. She reported comments like:

Maths is good for the head in prison.

Maths stops you thinking in the cell.

Reading can wreck your head, but maths helps us relax in the cell.

I love these pages of puzzles at night.

Showing John how much his knowledge of the dogs involved mathematical operations, she was showing him his strengths and potential.

John's view of himself and of what counts as mathematics echoes the findings of a 1995 study[35] in which the researchers found that once people succeed in using and applying a piece of mathematics, it becomes 'non-maths'. It may be useful for tutors to bear in mind the possibility that people who describe themselves as 'no good' at maths may actually be routinely involved in activities that use a great deal of invisible mathematics. (See C1 for activities to encourage students to uncover some of the mathematics they use in their everyday lives).

In terms of the key question, 'What does this person need to learn – and in what context?' (discussed in B1), Catherine is taking a holistic understanding of the word 'need'. In terms of a 'functional' approach to numeracy, John seems to be doing fine, as she pointed out to him. The context in which she could see a 'need' for him to learn more is that of his confinement in prison. Using his mind to explore mathematical operations was a benefit John stood to gain from classroom learning.

Preparation:

Identify context
– of student's personal and community life;
– their uses of literacy and numeracy.
Assess learning aims
– their learning purposes;
– their strengths and areas for development.

This section has set out in some detail four tutors' approaches to the process of curriculum development.

In recounting their work with individual students, Lillian Hahessy, Mary Walsh and Catherine Byrne each helps us see how the intensity of 1:1 work can be used to explore different situations each student was dealing with outside the classroom, and in so doing, enable them to reflect on ways they could deal with them more effectively. A similar approach by Margo Kelly, enabled a group to feel the empowerment of discovering and applying their own skills and knowledge to improve their conditions.

In each case the tutors were working with a priority to enable the personal and social learning of their students, rather than to keep at all costs to their plan. They were working strategically: the theme of the next part of the guide.

Part C: Strategies

Part C: Strategies

Strategic approaches to teaching mean the tutor is **linking together purpose with method, with the intention of ensuring that the choice of method** has a good chance of being effective for particular learning situations.

Part C sets an attitude of mind to support tutors in doing this. It is not a comprehensive collection of techniques for teaching adult literacy and numeracy; rather, it links evidence-based recommendations for effective approaches to this teaching with a selection of the resources and activities available to support them.

Approaches

This section offers some strategies to help teachers and learners to develop the essential knowledge, skills and competencies to support students' progress and achievement in literacy and numeracy. These strategies are embedded in the social practices approach to make sure learning is relevant to learners' lives and purposes. They are drawn from NALA and other Irish sources and from elsewhere.

During the last five years the National Research and Development Centre for Adult Literacy and Numeracy (NRDC) has been looking in great detail at literacy, language and numeracy classrooms in England. While the context in Ireland differs from that in England in many ways, we believe that there are insights to be gleaned from the rich evidence amassed through this work. Examples below, therefore, include observations and ideas taken from the reports and guides produced following these UK research and development projects.

You will notice that we have not included a separate section on speaking and listening, which are important elements in communication. However, as you will have also noticed, there has already been a great deal of reference throughout this guide to the value of talking, turn-taking, active listening and discussion in the learning environment.

In the third section of Part C, you will find a series of activities that focus on ways to generate sharing among students of their ideas and experience through structured discussion. If you are interested in exploring this further, it would be useful to go to NALA for resources on the teaching of English for Speakers of Other Languages (ESOL).

Reading

What is reading? As a useful starting point, NRDC researchers suggest that we can think of it as 'creating or deriving meaning from text'. *Comprehension* is the main point of reading and this involves mastery of a complex system of interrelated skills. The traditional division into text, sentence and word recognises that these skills operate on different levels. Although this suggests a hierarchy of complexity, in practice the three levels need to be taught together.[36]

An important finding from the NRDC research was the benefit for students of working together. It seems that working in pairs helps rather than hinders progress. This is not to say that individual attention has no value. Adult basic education students in Ireland often speak with feeling of the difference it makes to have their tutor giving the kind of attention to their learning and their interests that the students have not known before.

Some people are able to acquire these skills very easily. Others have great difficulty. The difficulties are not completely understood. People with specific difficulties in reading and writing are often diagnosed as dyslexic. This has no relation to intelligence levels but means they have a specific difficulty with reading and writing and have to spend more time learning the skills and take more time to actually read and write.

Strategies that the researchers found to be useful for student learning in their observations of teaching reading included:
• giving feedback and appraisal immediately;
• discussion of vocabulary during a reading;
• other word study (e.g. word lists, puzzles, word searches);
• using a dictionary to find meanings.

Less useful for student progress in reading was being left to work silently and alone. Strategies deemed to be effective included:
- oral reading to develop fluency such as reciprocal teaching in pairs;
- explicit comprehension strategies;
- accurate phonics teaching;
- language experience approaches.[37]

Oral reading
By this, the researchers mean reading aloud to one or more people. What the research found was that while adult literacy tutors were worried that students would find this intimidating and remind them of bad experiences in earlier life, they were not always aware of the various ways that it could be done – in ways that could help students develop in confidence and skills. These are some they offer in the guide:

Paired reading. The student reads with a teacher, assistant or another student at a higher level. They start reading the text together until the student signals that she or he is happy to read alone.

Modelled (echo) reading. Here the tutor reads aloud first and the student repeats. (It is important not to read out too long a chunk. A phrase or short sentence at a time is best).

Explicit comprehension strategies. These include:
- scanning the text to gauge the general meaning;
- checking for unknown words, either difficult to read or not understood;
- using cloze exercises to develop understanding of sentence structure;
- asking and answering questions verbally or in writing to check comprehension and understanding; using a dictionary to expand vocabulary and find meanings.

Research in America (NICHD, 2000:15) found effective approaches for teaching comprehension strategies included:
- using graphic or semantic organisers (including story maps);
- answering questions – with immediate feedback from the teacher;
- asking questions – readers ask themselves questions about various aspects of the story;
- using the structure of the story to help recall content to answer questions;

- summarising – where students learn to integrate ideas and generalise from the text information.

Phonics

Since reading is primarily about comprehension, too much focus on accurate word identification can sometimes get in the way. Phonics, however, taught systematically, has a place. The study found that tutors sometimes teach phonics on the spur of the moment and a bit misleadingly. If they taught a phonic approach over time with more planning, however, it could help deal with 'pockets of missing information' (Burton 2007: 13). For a useful debate on phonics and suggested materials, the guide recommends: _http://www. focusonphonics.co.uk_.

Alphabetics is a term used to describe the process through which people understand and manipulate the system in their language for linking letter or symbol with sound. It includes both phoneme awareness and phonics. Phoneme awareness is being able to 'hear' how speech is made up of separate sound units.

Some students have very genuine difficulty in correlating the grapheme-phoneme relationship – matching sound and symbol, either encoding (symbol to sound) or decoding (sound to symbol). While it is essential that other strategies such as predicting and guessing meaning from context are used, some ability to identify the sounds is useful. Learning these can be incorporated into any theme and any session.

Language experience

Language experience is a teaching approach used in adult literacy in which the tutor, acting as scribe, co-creates a text with the student. The idea is that the piece is in the student's words; the student, freed from concerns about their spelling, punctuation or handwriting, can concentrate on the process of composition. The approach is used widely as a means to produce reading material for beginning students.

With a beginning reader, the text is best kept short and simple. Three or four sentences are usually enough, and typically, they may begin with: My name is… I live in… I have two children… Their names are…

The idea is to aim for maximum success in being able to read back the piece. This means that once the tutor has scribbled

down something that the student agrees says what they want, the tutor's task is to copy it into a legible form (by hand or word processor) and read it back slowly to the student. From then on, it is a matter of the student being able to use a combination of memory, shape recognition and phonics to read the text independently. The writing can then provide the basis of word cards for matching, which in turn can be manipulated with the gradual addition of other words to create new sentences. The secret is to keep the whole process simple and gradual.

Writing
Language experience is also effective as a basis for teaching writing development, using the scribed text as the first draft of something the student can copy and then be encouraged to develop. The text may be quite short or it may be worked on to become quite lengthy. The mix of speech and writing, the give and take of talk and composition, can be a new experience for many adult students. It is exploratory; it is also creative.[38]

This account of a tutor and student using the approach shows a tutor taking a strategic approach to the work of supporting a student to create a text. It provides an example of the way in which a step-by-step approach to teaching writing can ensure that the student remains at the centre of the process the student through four distinct steps, highlighted here in bold type:

> All his life,John had worked long hours on the family farm. In recent years, feeling there was no future in this for him, he had become desperate to find other work. The local authority advertised jobs he could do but the application forms ran to seven pages. With Sarah, the teacher of the basic skills class he attended, John **worked out what he might say in answer to the questions** (such as, 'why do you think you should be considered for this post?'). Sarah **took notes of what John said and read them back to him**. They discussed improvements. She amended her notes and **again checked them with him**. When John was satisfied, Sarah **made a fair copy for him** to use in completing the form. (Mace 2004)

Sarah's four steps were that she:
• encouraged John to work out what he wanted to say;
• took notes from this;
• checked these notes back with John; and
• made a fair copy for him.

Sarah's purpose was to enable the text to truly be John's composition. The steps she took were part of a deliberate strategy to achieve this.

From the NRDC research on writing, the findings led to some clear recommendations for tutors. To ensure students develop their writing skills, tutors should:
- place the focus first and foremost on writing as communication;
- encourage learners to compose their own texts and support learners to do this through the careful setting up of writing tasks and the use of talk;
- approach the technical aspects of writing – spelling, grammatical correctness and punctuation – within the context of meaningful writing tasks rather than through decontextualised exercises;
- be flexible and responsive to learners' needs, supporting learners as they draft, revise and proofread their work; and
- make links between the writing undertaken in the class and learners' lives beyond the classroom.[39]

The researchers found these practices illustrated by the following teaching which they observed during their study (Grief and Chatterton 2007: 51-52).

Using learners' own writing to teach grammar
A group created a poem together on the theme of the colour green. When this was completed, the teacher used the poem to help the learners to identify the nouns they had used within the poem.

Using spellings arising from writing task
Teachers used the pre-writing activities to elicit key words that learners might need in the writing task. In discussing these, they both revised previously taught strategies and introduced new ones. It is important to offer a range of strategies and allow learners to choose those they find most useful.

Addressing the specific demands of a particular writing task
The learners in one group had identified in their initial interviews that they would like to work on formal letters. At the start of the session, the teacher and learners spent some time discussing subjects for formal letters that they might actually want to send. Having established the purposes and audiences

for their letters, the group then looked at the structure of formal letters and the use of paragraphs before they went on to plan and draft their letters. The work on paragraphs was explicitly linked to the agreed task of writing a letter.

A useful insight from the study on teaching and learning was the finding that many students viewed writing as 'a classroom activity' and for students to make any real progress, they need to see ways of applying what they learn in class to situations elsewhere:

> *'Practice that makes a strong link with the real world beyond the class may help learners to feel more confident, particularly in the everyday writing tasks they undertake at home.' (Grief, Meyer and Burgess 2007)*[40]

In addition, they found that encouraging students to produce writing for a wider audience can be effective in developing writing skills. (More on this appears in the last of the 'Activities' in Part C).

An additional finding of the study on writing was that students progressed better if there was a high percentage of class time spent on (purposeful) talk. As the study suggests: discussion provides an opportunity to share experiences, stimulate memory, try out and rehearse ideas and opinions and tease out the right vocabulary (Grief and Chatterton 2007: 12). Talk, in other words, can be work. The way that reading can often help writing is for tutors to provide examples of the kind of writing they are asking students to tackle; offer 'writing frames' to prompt the writing and (sometimes) offer some scribal help (as in the language experience example above).

There are many resources which demonstrate different strategies and provide sample exercises aimed at improving the technical aspects of reading, writing and spelling. Among them are the learner workbooks supporting the *Really useful guide to words and numbers* TV series (*www.rug.ie*) and Missling the Tobar which gives sample exercises for working with letters and words. Both of these are produced by NALA. There are also a number of computer programmes and online resources including *www.readwritenow.ie*, *www.bbc.co.uk/skillwise*, *www.literacytools.ie* and *www.niace.org.uk* – find 'Write where you are', follow 'Starting points'; then 'edit and write'.

Setting up a writing task with students also means giving time to clarify the purpose of the writing, collecting ideas or information, organising these in form and making a plan.

Numeracy

What constitutes effective practice in numeracy classrooms? The NIACE/NRDC *Practitioner Guide* offers a set of principles:

Encouraging active learner participation

Learners come to mathematics classes with clear expectations of the teacher, the mathematics and the ways in which they will be expected to learn. Some may expect that the teacher will spend most of their time talking in front of the class, and many may have previously measured their success in maths by how many worksheets they have completed or how may ticks they received, rather than by how much their understanding has developed. Some think a classroom is a place where learners do not talk much together and therefore may find it difficult to adjust to collaborative approaches to learning. Teachers need to discuss with learners the benefits of more interactive teaching and learning approaches, and be explicit about why they believe these are likely to be effective.

Building on what learners know

Research suggests (Swan, 2006) that building on the knowledge learners already have leads to more effective teaching. This means teachers need to find ways to uncover this knowledge and understanding, which may be hidden, partial or limited by a particular context. Elsewhere in this guide we discussed some approaches to this. We suggested that teachers should be alert to the idea that students' 'street' maths may be stronger than their 'school' maths, and that teachers could usefully encourage students to discuss the various mathematical algorithms they use. The NIACE/NRDC *Practitioner Guide* supports this idea that teaching will be more effective if it builds on the knowledge students already have, asking students to describe what they already know about a 'new' topic.

Mistakes and misconceptions

In responding to ideas offered by students (whether offered in discussion or on paper), teachers and students are often very aware of 'making mistakes'. Although literacy teachers and students often deal with this idea by seeing all text (verbal or written) as in some way 'draft', numeracy teachers and students

may feel under pressure to 'get the right answer', and to 'correct mistakes' immediately. The NRDC/NIACE *Practitioner Guide* suggests that exploration by teachers and students of 'mistakes' and 'misconceptions' can be stimulating and rewarding, encouraging teachers and students to see them as positive learning opportunities and to generate, welcome and work through such 'cognitive conflicts'.

Organisation of classes: collaborative learning

The rationale for collaborative learning is that people learn mathematics better by sharing knowledge, exploring each other's strategies and bouncing ideas off each other. They learn to make their thinking visible and to listen to each other when they have to explain their reasoning and justify their strategies and answers. Thinking aloud consolidates their understanding and also involves learning to use appropriate language.

Meeting the needs of all learners

Many numeracy classes will have a wide spread of ability and levels. The range will obviously affect how the class works. Too wide a spread can make it very difficult for all the learners to work together, while a narrower range of levels can enable more focussed teaching and learning and much more opportunity for collaborative group work and problem solving. The Effective Practice study found that, 'Being flexible and able to use a variety of approaches to accommodate learners' needs' and 'Extending learners beyond their comfort zone' were key elements of an effective lesson. Note that it is important that all learners are extended, not just those at higher levels.

Questioning

A key part of formative assessment involves teachers asking learners questions. However, research shows that many numeracy teachers tend to use low-level, closed, factual recall questions more frequently than higher-level, open questions that reveal learners' thinking processes or require learners to use mathematical reasoning.

Teachers need closed questions if they want indicative information about knowledge and understanding ('Do you know what 3 x 7 is?' or 'What is the area of this triangle?'). However, while closed questions can clearly serve a purpose as a learning check, they often do not expose thinking

processes and so give little information to the teacher on what to do next. Open questions, on the other hand, can establish the limits of a learner's understanding, what they still need to learn, what misconceptions they might have, and how best to address these.

Running as themes across these is the idea that topic-based teaching generates and sustains students' interest, and that they generally make better progress when they collaborate. The NRDC guide suggests that topic-based teaching (illustrated by several examples in this guide) is helpful in numeracy for a number of reasons:
- it creates an unthreatening atmosphere in classes;
- learners are more engaged when they have chosen the topic;
- they may be stretched by working (especially in a group) beyond their comfort zone;
- they may be able to contribute from their life experience; and
- they may find chances to improve their literacy as well as their numeracy.

The NRDC Maths4Life project has produced a pack of resources – *Thinking Through Mathematics: Strategies for Teaching and Learning for Teachers in the Skills for Life* sector (NRDC 2006) – designed to encourage a more active and collaborative approach to classroom teaching and learning. The approaches on which it is based have two related aims: the first is to help learners become more active in their learning; the second is to develop more 'connected' and 'challenging' teaching methods. This idea of 'connectionist teaching' is a lovely way of appreciating and applying the cyclical (or iterative) process of curriculum development recommended in this guide (see Glossary).

Traditional 'transmission' approaches involve simplifying ideas and methods by explaining them to learners one step at a time. Questions are posed to lead learners in a particular direction or to check that they are following a taught procedure. Learners then practise, practise, practise. There is plenty of research evidence (Swan: 2006) to show that this approach does not promote transferable learning that endures over time or that may be used in non-routine situations. It can also demotivate and undermine learners' confidence.

In contrast, the model of teaching that the project team adopted emphasises the interconnected nature of the subject. It is also challenging in the sense that it seeks to confront common conceptual difficulties head on. For example, traditional practices are reversed by allowing learners opportunities to tackle problems before offering them guidance and support. This encourages them to apply pre-existing knowledge and enables us to assess and then help them build on that knowledge.

Thinking Through Mathematics argues that teaching is more effective when it:

- **builds on the knowledge learners already have**
  This means developing formative assessment techniques and adapting our teaching to accommodate individual learning needs (Black & Wiliam, 1998)[41];

- **exposes and discusses common misconceptions**
  Learning activities should expose current thinking, create 'tensions' by confronting learners with inconsistencies, and allow opportunities for resolution through discussion (Askew & Wiliam, 1995)[42];

- **uses higher-order questions**
  Questioning is more effective when it promotes explanation, application and synthesis rather than mere recall;

- **uses co-operative small group work**
  Activities are more effective when they encourage critical, constructive discussion, rather than argumentation or uncritical acceptance (Mercer, 2000)[43]. Shared goals and group accountability are important;

- **encourages reasoning rather than 'answer getting'**
  Often, learners are more concerned with what they have 'done' than with what they have learned. It is better to aim for depth than for superficial 'coverage';

- **uses rich, collaborative tasks**
  The tasks we use should be accessible, extendable, encourage decision-making, promote discussion, encourage creativity, encourage 'what if' and 'what if not' questions (Ahmed, 1987)[44];

- **creates connections between topics**
  Learners often find it difficult to generalise and transfer their learning to other topics and contexts. Related concepts (such as division, fraction and ratio) remain unconnected. Effective teachers build bridges between ideas (Askew et al., 1997)[45];

- **uses technology**
  Computers and interactive whiteboards, used appropriately, can allow us to present concepts in visual, dynamic and exciting ways that motivate learners.

Working in Groups

Many students and tutors in Irish adult basic education (ABE) work in one-to-one situations and this can be an important approach for new students or those with specific learning issues. An important finding from the research on teaching and learning reading, writing and numeracy, however, is the benefit for students of working together. It seems that working in pairs helps rather than hinders progress and students gain in independence more than when they work one-to-one with a tutor. This is not to say that individual attention has no value. ABE students in Ireland often speak with feeling of the difference it makes to have their own tutor giving the kind of attention to their learning and their interests that they have not known before.

> *In a group, new ranges of views, prejudices and experiences are met, all of them calling for learning changes and widening horizons. The group can provide a stimulus for change, for increased awareness and critical reflection, helping adults to become more conscious of, and more effective, in their learning. (Learning Connections 2005 p. 45)*

The importance of group work and shared learning has been identified in recent NRDC research[46] and the advantages have been highlighted in the *Adult Literacy and Numeracy Curriculum Framework for Scotland.*[47] It is, therefore, useful for tutors to understand group dynamics and be able to incorporate both group and individual goals in the overall programme and the individual session.

Accommodating different levels of literacy and numeracy without resorting to individualised tuition is one of the main challenges of a social development approach. Picking up on

group interests and generating a programme from shared interest or shared work in conjunction with students supports the development of group cohesiveness.

In the social development approach, we sometimes use the word 'facilitating'. Good facilitation encourages students to think about and articulate both their immediate literacy and numeracy needs and their future aspirations. Facilitation is a word often used in the context of community development but it applies equally well to literacy and numeracy programmes.

> *"Facilitation is a method of working – it is used to agree goals, plans and actions which depend on the value and vision of the people being facilitated."* Prendiville (2004:16)

Facilitation skills can also be used to encourage learners to think and develop ideas, to broaden their horizons and extend their knowledge.

A good facilitator helps people:
> *decide what they want to accomplish, reminds them of their responsibility in achieving it and encourages and helps them to complete an agreed task or activity…This means recognising the value of each person's contribution, encouraging the active participation of each group member in identifying and utilising his/her skills and experience, creativity and analysis. This…enables groups and individuals to plan for development and change. (ibid:13-14)*

Facilitation relates directly to the student-centred social model of literacy and numeracy in which students are helped to identify their learning goals and work with the facilitator to plan a series of learning activities leading to a desired outcome. However, facilitation is not easy. It requires facilitators to think about their own skills, values, beliefs and experiences, which requires a degree of self-reflection and self-analysis. Many literacy students are very nervous of joining a group. Often, their overriding desire is to hide their difficulties from everyone else. However, joining a group can help people to 'open up' and realise they are not alone with their difficulties and that they can both give support to other people and receive support themselves.

This example from the Bray Adult Learning Centre illustrates the process and the positive outcomes of good facilitation:

We knew from our experience that men's groups tend not to work well…In the first session, we looked at how groups work. We used a game called 'lost at sea' to demonstrate how working in groups allows a sharing of skills and ideas and requires letting go of one's own opinions and plans. We then brainstormed around the idea of what learners hoped to gain from the classes and what they felt was necessary for the group to work well. This was recorded in the form of a group contract. As a result of this discussion, the first set of objectives identified were that the men would know that for a group to function effectively its members should:

- *feel comfortable in a group;*
- *be able to share opinions;*
- *be able to work on shared tasks.*

Planning for the group had to be very flexible. It took three weeks for attendance to settle and for us to identify our core group. Throughout the course, we were able to work with the stated objectives and had enough flexibility to determine outcomes from week to week. The early sessions were very fluid. The programme required a lot of flexibility from us as tutors as well as an ability to let go the traditional role of tutor to lead and produce work. We needed to find a new role as facilitators to the learners and accept that learning was taking place through discussion and was being embedded. The tutor role as an observer in this setting allowed the students to be centre-stage and leaders in their own right. As the weeks progressed, the student's roles became more active and they took more responsibility for defining their own learning and learning needs.

Difficulties and conflict are almost inevitable in a group's life but the tutor as facilitator is not a fixer. She or he may use various methods and strategies to help people confront a difficulty, but the tutor cannot fix it for them. He or she must facilitate and enable the group to resolve the difficulty, difference or conflict. The tutor must analyse the situation and then enable the group to work through it, by defining the problem, generating solutions and suggesting a course of action.

"It is a method that has been incorporated by many organisations and groups as a tool which will enhance the integration, inclusion, involvement, participation and equality of all members of the community."
(Prendiville 2004:9)

Resources of relevance

All sorts of published and online resources are emerging all the time in Irish adult basic education. Listed here are a sample of those with particular relevance to the themes and issues presented in this guide, with notes from Jane Smith. We have offered for each a heading, intended to enable you to see its connection to these themes and issues.

Learning outcomes in action
What's in the post? (Clare Family Learning Project, 2000. Family Learning Resource Guide. p. 143)

This publication is a resource for family literacy practitioners. It develops in-depth sessions for facilitators, parents and children to work through in classroom sessions and suggests home activities which parents can work on with their children. There are 14 sessions, each of which could stand alone. Each session contains learning outcomes with activities, timings and practical examples. Each session also is evaluated when completed using the 'session notes' section. The programme as a whole is evaluated on pages 278-281 and there are suggested progression routes on page 281. Parents are involved in their own evaluation of the programme on page 283.

The session 'Print is all around us' is a useful resource for tutors looking for ways to use authentic materials effectively and to use everyday reading and writing material as a main resource. Based around what comes through the letter box, the work highlights the value and complexity of everyday materials. The suggestions for using these encourage creativity by tutors, parents and children. The activities are integrated and there is a discrete developmental path from looking at visual texts to being challenged with text material and reading.

Basic reading and advanced thinking
Safe lifting (FÁS and NALA 2006g Steps to Safety p 66)

Page 66 of this publication introduces students to safe lifting practices. The reading level of this activity is basic, using vocabulary at a beginner reader level (for example, hand, back, feet). The message of safe lifting is delivered through a simple illustration of safe and unsafe lifting. The instructions for using the worksheet are given in words with a visual example. The vocabulary used for the reading and labelling exercise would be the words used by the learner during the speaking and listening section carried out by the tutor.

The labelling exercise introduces some simple pen work. The worksheet uses reading strategies suitable for beginner level readers: simple vocabulary supported by visuals reinforced through multi-sensory learning.

For reading comprehension development, one simple concept (safe or not safe) is presented. Related oral work provides the opportunity for developing the higher level comprehension skill of critical thinking. This practice would allow a basic reader the opportunity to display these thinking skills through speaking and listening.

Integrating numeracy and critical thinking
Mobile phones (NALA 2006c Really Useful Guide to Words and Numbers, workbook 1 p. 57-62)

This short unit deals with some practical aspects of using a mobile phone. The cost of using a mobile phone would be something a student might want help with and he or she may have issues around advertising materials, which suggest saving money. The context of 'cheaper' allows discussion in the classroom. This would build confidence skills in the wider social environment. The language of number, for example '3 times cheaper', could prompt the question – 'how would you work that out?' 'Peak and off-peak periods' require students to deal with time. The questions on page 59 can only be answered by reading the table on page 58. This integrates the numeracy and literacy elements of mobile phone use.

This small piece of work on mobile phones lets students work on simple money calculations. The use of a calculator to check answers could extend numeracy skills here.

Writing and reflection
Learning Journal: visit to an art gallery (NALA 2003b *Skillwords* p.13)

This worksheet presents the two important components of using a learning journal effectively – to record the details of the learning experience and to reflect on that learning in a personal way.

Providing details of the name, date and location of the learning sets up good practice for journal entry skills. The next two sections of the worksheet allows the student to recall the details of the visit to the art gallery in a practical way. The final three parts of the worksheet encourage the student to reflect on the learning experience. The last section allows the student to document his or her own opinions. Students with more advanced writing skills could demonstrate them here while students at an earlier stage of writing may write less.

The composition of the worksheet caters for a range of writing ability. As a writing exercise, it asks the student to move from recording simple facts to recording complex and abstract ideas.

Context and citizenship
Know Your EU (NALA 2005c p. 63-70)

These pages are useful as an entry point for students to become aware of European Union (EU) regulations and their rights as EU citizens.

Reading labels and food packets would prompt discussion such as 'who decides what's allowed in food?' bringing the student to think about food regulations as being wider than just Irish. The advantages of EU citizenship would naturally come from a unit of work on holidays where health privileges in Ireland are extended with the EU (E111 Form). Approaching the regulatory aspect of living in the EU through practical examples such as food labels provides context.

The tutor information pages on this section give a brief background for tutors who may themselves need guidance in

this area. This section of the publication could be a springboard for looking at EU topics such as citizenship in more depth.

Numeracy and social practice
Making Cents – How Do I Manage Money? (NALA (2007a. p. 24-42)

This unit of work is based on money management skills. Its focus is on placing these skills in a social context familiar to the learner. The ideas for discussion on the unit allows for personal development as the student is encouraged to deal with money matters arising from his or her own situation. The language of the unit is uncomplicated. The key vocabulary is presented at the start of the unit so students could work on word-building and spelling in an integrated way as the unit progresses.

The numeracy skills in the unit focus on what the student needs today to deal with a numeracy issue in his or her life. The unit does not attempt to build skill with numeracy. Its purpose is to inject skills where they are needed in the student's life. Students are introduced to the writing format of charts and tables. This allows students to recognise this format in everyday reading material and to feel comfortable with the format. Work could be done in the classroom to build reading skills around finding information in a table. Writing skills could be similarly worked on to let students enter information into a table. Budget and bill models are used in the unit. The samples used reflect sensible budgets and bills to which students could relate. There are references to social welfare payments and part time earnings, both of which could be factors in the student's own life.

To conclude, this publication is one which allows literacy and numeracy to be integrated. It promotes learner-centred methodologies and prepares learners for numeracy challenges in their daily lives.

Others
Mainly literacy:
- *The Big Picture* – NALA 2005, pages 20-24
- *The Really Useful Guide, Part 1 – Listening and Speaking in the Workplace* – NALA 2006, page 88
- *The Really Useful Guide, Part 2 – Airport Security* – NALA 2006, pages 130-131
- *Skillwords* – NALA 2003. Catering Section, pages 4-5

- *Skillwords* – NALA 2003. Art Section, Learning Journal page 13
- *Using Cash Machines* – NALA 2005

Mainly numeracy:
- Medication Diary, *The Health Pack*, NALA 2004, pages 44-46
- Temperature and Food Safety 1& 2, *Steps to Safety*, FÁS and NALA, 2006, pages 59-60
- Shopping, Know Your Money, St. Michael's House Research, Dublin, 2001, pages 40-43

Literacy and social action
Of particular relevance to the idea of change and social action (discussed especially in section A2) is an American publication: Berdan, K et al (2006) *Writing for a Change: Boosting Literacy and Learning Through Social Action.* Jossey-Bass Teacher Series.

This contains case studies and 'Stuff to try in the Classroom', mainly for children and young adults but applicable to all ages.

Activities

In this section, we present guidance notes on five activities developed during the course of the action research in Ireland from which this guide has been written.

The first two provide material for use with individuals or groups, to generate topics from students' experiences and to increase awareness of how students already encounter literacy and numeracy in their lives. They both provide the opportunity for students to feel the reality of the curriculum being 'student-directed'.

The other three activities provide guidelines for students and tutors to explore possibilities for learning and illustrate the key concepts of linking context and skills, literacy and numeracy, and holistic learning.

Like all published teaching material, these notes are intended to be adapted and developed by tutors to suit their particular situation and context at times in the curriculum development cycle that feel appropriate.

Getting to my place

The idea of this exercise is to show some of the choices we all make in everyday life that involve:

- literacy/numeracy/language skills we have;
- those that we prefer to use; and
- the individual's intelligence and strengths in learning and communicating.

Its value is in enabling students who may be unaware of how much reading, writing and maths they already deal with, to compare their own strategies with those of Roisin – and, in so doing, to notice their own preferences and learning strengths.

Start by sharing experiences of giving people directions. Take turns to recall good and bad ones. Pick out what makes things easier for different students to absorb information about directions.

Ask what kind of maths and numeracy is involved? What reading and/or writing is involved? To help this discussion focus on choices and preferences, you could mention the idea of 'multiple intelligences' (D2).

<u>Offer an example:</u>
(Use this, or a better one of your own invention):

Martina lives in Kilkenny. Roisin lives in Galway. Roisin is coming to stay with Martina at the weekend, leaving work at midday on Friday. She does not have a car. The two of them are talking on the phone about Roisin's best way to get to Martina's place.

Discuss with students how they imagine these two people dealing with this. Consider questions like:

"Would either (or both) have a mobile phone? If so, do they feel ok about texting each other or do they prefer to make a phone call?"

"Does Roisin travel quite a lot or might this length of journey be new to her?"

"How do these two friends deal with directions? For instance, does Roisin prefer to read instructions or would

she rather listen to Martina telling her? Would it help her if Martina offered visual clues for some stage of the journey?"

"What kinds of estimates of time and distance will they need to calculate?"

Students could then imagine (or work out) the connections involved for Roisin, between leaving her home, getting to bus and/or railway stations, getting to the street where Martina lives – and how the two friends work out the timetables and the timing for her journey.

They could then consider a list of these possible follow-up activities:
• draw up a chart of these connections;
• list the numeracy and literacy activities entailed;
• draft some writing based on this discussion and their experience;
• draw a map with directions for telling someone else in the group how to get from the classroom to another agreed place locally.

Decide which they would prefer to do and notice this preference.

If appropriate, tutors could offer a brief presentation on the idea of holistic learning and/or show a version of the 'multiple intelligence' chart.

Daily routines
The idea of this activity is to help tutor and students to discover the kind of literacy and numeracy activity they already do, and where they might want to do some learning.

Its value is in giving students the opportunity to explore a slice of everyday life for the literacy and numeracy within it.

Materials: Flip chart paper, felt tip pens, small cards. Charts for each student with columns starting at 6.00 am and finishing at 11.00 pm, on the same lines as those for 'Tom – stable lad' (pages 91-92)

Notes: Depending on the numbers, you might want to work as a whole group, in small groups or individually. Use your

discretion as to whether to read through the 'Tom – stable lad' text as a stimulus at the start or as something to compare with at the end.

<u>Activity</u>: Get students to take turns describing their day, noting the commonalities – for example, making breakfast, getting the bus to work, what they need at work – fire instructions, phone, etc (here much may differ) or, for example, what they do on Sundays.

Depending on the group, they could draw pictures in the columns – clock for waking up, bus stop, bus ticket, etc (quality of drawing irrelevant).

Begin by inviting students to tell each other, first, about their 'routine day' and, second, about what they do at each time. Ask them to explain what practical skills and knowledge they need to have at each stage.

1. (optional) Draw the activities on small cards and put these in the appropriate place on the time chart (you could have pre-prepared cards but this takes away much of the fun 'activity', fun and discussion).
2. Discuss together the literacy and numeracy, listening and speaking activities required for each activity.
3. Tutor, volunteer or proficient students can then write on the chart what literacy, speaking and numeracy skills are required at each point.
4. Discuss strategies for dealing with these. What help do they get from others and/or give to anyone else in these everyday activities?

At this stage, it may be good to have a pause to reflect on how much has been generated.

There should now be material from which to discuss and identify:
– the skills and abilities students particularly feel the need to develop;
– the literacy or numeracy moments in their day which they would particularly like to work on.

The following grid shows the daily routine set out in this way for an imaginary person called Tom, the stable lad.

Time	Activity	Practical skill/knowledge
5.30	Get up	
	Wash, etc.	
6.00	Make and eat breakfast	Cooking (unless someone else does it)
6.30	Go to the bus stop to get the bus to the stables	Knowing destination
7.00	Feed horses	Know and identify different types of feed for different horses in different amounts of work
7.10	Muck out Observe and check condition of horses – injuries, cuts, wounds, condition of legs	How to muck out What to look for to assess horse's condition
7.30	Report to the boss	
	Saddle and bridle the allotted horse	Know how to tack up a horse
	Exercise the horse on the 'gallops	Excellent riding skills
9.00	Rub down the horse after exercising and rug up	Know how to rub down a horse after exercise
9.30	Make and eat breakfast Read *Racing Post*	
10.00	Ride two more horse in lots[48]	Excellent riding skills
12.00	Clean the tack for several horses	
12.30	Feed horses and give any medication for horses – bute[49]/antibiotics etc	
1.00	Lunch, at pub, sandwiches or cook	
1.00	Re-read *Racing Post*. Decide on bets	Luck Understand the form Ability to judge the odds
		Watch racing form on TV
	Place bet manually	
	Place bet by phone	
4.00	Return to evening work – stables, skip out, feed, rug up and water	Know how to rug up
6.00	Get the bus home	
5.00	Cook and eat supper	
7.00	Pub with mates; play darts or snooker	Skill at darts or snooker

Literacy	Numeracy	Speaking and listening
	Reading the time	
Reading the bus timetable	Knowing the times of the buses. Judging the time to bus stop and time bus takes. Counting the right money	
Reading the ticket machine		
Read details of feed from board; select from feeds for each horse from bran, oats, nuts, horse ration, hay, silage, succulents, supplements	Weigh out the different kinds of feed and supplements depending on type of horse, weight and exercise level	Greet others in stable; ask or answer questions about the horses
		Report condition of horse verbally to boss
Read the notice board for names of horses to be exercised		
	Judge the time out exercising and the speed of the horse at each stage of the exercising. Mentally compare speed with those of other horses	
Able to skim and scan newspaper	Judging the temperature if frying bacon and eggs Judging the quantities for the number of people	Talk about the racing
Reading the names of the different horses' harnesses to hang the bridles back up		
Read names medicines and antibiotics	Measure correct dosages	
Read as appropriate		Chat over lunch
Read up the declared runners for week, type of ground and weight. Keep up to date on training news	Calculate the betting odds Place a bet	Social discussion and interaction
Read form guide and odds on TV	Calculate odds	
	Read and complete the form Paying the bet	
Read bookies name Read winners' names at betting shop or on TV	Find bookies phone number and dial. Arrange payment. Read visa card numbers correctly. Collect winnings or calculate losses.	
Feed details as before	Estimate or	
	Know the bus times	
Possibly read food labels	Calculate the amounts	
	Keep score at darts or snooker; pay for drinks	Social discussion and interaction

Ask the student(s) to notice from the example of Tom's chart:

… the reading that Tom might have to do in a typical day (there's not much writing):

- horses' name in stables; exercise and 'lot' board; food board and food labels;
- names of different medicines and instructions; the newspaper *Racing Post*;
- racehorse names, dates and places of race meetings; form guide on paper and on TV;
- betting form; the TV times; labels, and receipts.

… the numeracy he might have to do:

- weights and measures for feed; measuring out medicines;
- calculating speed of horse;
- dates and times; understanding the form; calculating the odds, winnings and losses;
- checking pay slip; filling in the betting form; scoring darts and snooker;
- counting money for drinks.

And consider:

… the classroom work that could support Tom such as:

- reading flash cards of different feeds;
- locating race meets on the map;
- identifying and copying horses' names from the paper;
- calculating last week's losses (addition and subtraction).

Offer students these possible follow-up exercises:

- Mapping
  Roughly map out the layout of the racecourse, including stables, car parks, betting area, etc, with moveable objects. When agreement is reached, transfer drawing onto paper. Label the different parts. These words can become the reading text.

  Draw a map from the stables to the racecourse for the driver of the horse box.

- Ranking
  Put in rank order the number of wins of each horse or the condition and chances of each horse at different races.

- Calendar
  Draw up the racing calendar of activities for the coming year.

Pictures – evaluation

There are two approaches suggested here for using photographs. In this first one, we discuss the use of a collection of photographs as a catalyst for discussing experiences of learning. In the one that follows, we shall see how encouraging students to take photographs can lead to these providing material for reflection and learning. In both cases, the work was done with groups but it could certainly be used with individual students, too.

In the first year of the curriculum project (2006), nine tutors agreed to hold meetings with students to explore their experience of learning. The idea was to ask four questions, with questions three and four being the key ones. Each group had a set of pictures showing people in different contexts – at work, in the community, in their families. No one in the pictures was shown actually doing any literacy or numeracy. The aim was to raise awareness of the unnoticed literacy and numeracy events in daily life, by asking students, from their own expertise and experience, to discuss the kind of literacy or numeracy activities that might come up for these people in these contexts. The questions that followed were intended to enable them to focus on their own experience, first in settings of the same kind in their own life, then in the classroom.

Tutors reported that this approach, while offering some helpful information for this guide, could also provide a helpful tool for reflection and evaluation. These guidelines are adapted from those used in the project.

Materials: a set of photographs of people in home, community or work settings, outdoors or indoors. Gather pictures (you can use your own) that are likely to be relevant to the students in the group in categories such as:
- working with others;
- family and friends;
- free time and interests.

Ensure that nobody in the pictures will be actually reading, writing or doing numeracy.

Timing tip: allow 20 minutes minimum, 45 minutes maximum for this, of which keep back 5 minutes for the 'wind-up'.

Clarify that the aim of the session is for students to share:
a) their experience of dealing with literacy and numeracy in everyday life;
b) their perception of how useful classroom learning has been to this experience;
c) their ideas for what would be helpful to their continuing learning in order to ensure that classroom work is of maximum use to their purposes.

Explain that you will ask them four questions about the pictures:

- the first two about the literacy and numeracy situations which people in the photos may have to face;
- the other two about how similar situations they may face themselves get thought about and dealt with in the work of this class.

Make sure that students are aware that nobody in the pictures will be actually reading, writing or doing numeracy and that the point is to reflect on:

- what they seem to be doing; and
- how or when reading or writing or maths might occur in these situations.

The questions:
Each of the questions is a catalyst for discussion – for which you will need to find a way of taking notes. After discussion on each question, it can be helpful to read back some of the things that have been said and see if people want to say more.

1. Spread out the pictures on the table. Begin with a 'what's going on here?' question. Then ask:
'Can you think of any reading, writing, maths or numeracy that might crop up for someone in this situation?' (Allow time for hesitation, second thoughts and pondering).

2. Next, ask students to think back to something at work, at home or in their free time that they have been doing in the last few days and ask:
'Was there any reading, writing, maths or numeracy involved?' 'Could you say how you dealt with this?'

Maybe give an example of your own to prompt discussion. Encourage the idea that any story of someone getting help from (or giving help to) someone else is absolutely fine.

3. Now ask: 'is there anything you're learning now in your class – or anything about the way that you're learning – that you are finding particularly useful for you in dealing with situations like these?'
(Or: 'Is there anything that you're learning in class that is particularly useful for you outside class?')
Use follow-up prompts to elicit more, such as: 'If so what/how? If not, is there anything you would like to be doing more of?'
If they get stuck, re-state for them the answers they gave to question 2.

4. After there has been a good exchange about this, introduce the last question: 'How do you help your tutor decide what to teach?'
Give time for this question to sink in. Ask them not to rush answers. Some students may see it as an inappropriate thing for them to do – or be unaware that they do it.

Possible follow-up questions:
'Are there any topics you would like to study in your class that you have not yet?'
'If you don't help your tutor decide, is there any way you would like to in future?'

Windup: recap answers to questions 3 and 4. Ask students to say which they feel are important. Add any more. Reflect on what has been learned. Bring back the list to the following week's session to help guide future work.

Examples of the pictures used in the original project are at the end of this section.

Pictures – contexts
An extension of the previous activity is for students themselves to choose what pictures to take and where.

In South Tipperary VEC, Sheilagh Murphy explored this with the group of students on the *Return to Learning* programme that she was teaching. The three men – Pat, Mark and Jack – were all employees of the county council, in their 40s and 50s. She invited them to think about how they might take pictures of the numeracy practices in their working lives. In order to do this, they began with thinking about their daily life, and how and when numeracy cropped up.

This is her reflection on four sessions of work they did on this in April/May 2007.

1. The group listened to the details of the project and were interested in it. They named different work activities, with which they were all familiar although they had varying levels of experience, depending on their years of service in the council.

   We then talked about their jobs, looking at what was involved, breaking down the tasks and naming the skills required for them. We focussed on maths, but it was very apparent to us that there was considerable crossover with literacy and communications skills. I used the flipchart to record the tasks and skills we identified for each.

   The men expressed surprise at the multitude and complexity of skills required to do the various jobs. We also talked about their sports interests – darts, golf, soccer and Gaelic football – and the maths which they involved. Jack said: 'You would never think there was so much in it [the tasks]' and 'There's a lot going on'. Pat said: 'You wouldn't realise there is so much maths in it.' I summarised and printed out the flipchart notes for the following week.

2. We recapped on the project and discussed the method we would use to photograph the activities and the issues involved. Pat planned to use the camera on a mobile phone. This meant sorting out existing photographs in the camera and learning how to store and retrieve photographs from camera and card memory, skills he was happy to have the motivation to learn.

Mark and Jack, who work together frequently and know each other outside of work, agreed to share the use of a disposable camera. They were happy with its low cost and ease of use.

The issues raised were:
• Who will see the photographs and what will they be used for?
• Should people's faces be included in the photographs?
• Was the permission of the supervisor required?
• The content of the pictures: signs to be included or not?

We agreed that they would tell the supervisors what they were going to do and I would ask the co-ordinator of the *Return to Learning* project to support any queries. We also agreed to include pictures of people doing work, but only photograph faces if people were happy about it. With regard to content of the pictures, they decided they would include signage, e.g. 'hedge cutting in progress' and try to get pictures of as many of the activities we had identified as possible.

This is a selection of the tasks, maths and skills that we came up with:

Activity	Maths involved	Skills
Wet mixing: preparing mix, ordering concrete, preparing the road	Measuring amount of mix, Estimating, marking out distances	Multiplying, division, calculating measuring distance in metric and imperial
Chipping, preparing signs, using correct size of stones	Estimating, measuring, mapping, describe distances, right and left	Spatial skills, mapping skills, visual discrimination, calculating, volume. quantity and size.
Weather related road works	Temperatures, seasons,	Understanding and reading temperature gauges, judging, planning, knowledge of regulations
Patching	Planning, estimating, measuring materials	Planning skills, efficient use of time and manpower, measuring materials
Kerbing/gully and manhole work, wall building	Measuring, calculating numbers of blocks and sand, cement, measuring distance, size of blocks, stone, levels.	Knowledge of imperial and metric units of measurement, calculating quantity, estimating time, volume and number, levels,
Leisure pursuits, including darts, and golf	Multiplying, dividing, adding subtraction, calculating, planning	Judging distance, speed and accuracy, mental calculations, estimating, planning, reading league tables, scorecards

3. We spent some 20 minutes discussing progress with taking the pictures. Jack had taken about 12 photos and had a few laughs with his co-workers in the process. Pat had taken three with his camera phone and sorted out his storing of pictures. The challenge now was how he could send the photos to his email address. This he managed to do; the photo was good and we printed it off. Mark had not taken any photographs but agreed to take the disposable camera for the coming week and take some, including any leisure activities that struck him as useful. He also agreed to get the film developed before the next class to save on time.

4. The class missed a week but we completed the project a week later by:
   – selecting photographs;
   – using the computer to edit and print them;
   – writing a heading and detailing the maths in each.

We then put together the pages in a folder. At a later stage with this group, we may look at using computers to produce a more finished portfolio and present it as evidence for FETAC accreditation. Despite the missed week, we completed the project we had set for ourselves. The decision-making and writing work was where I saw the most active learning going on in class. Having the folder completed and looking so well gave the students a sense of completion and pride.

Some of the pictures used
for the curriculum project discussions

Pictures produced by Pat,
Mark and Jack

Learning and student publishing

Publishing does not have to mean a book with a print run of a thousand copies or more. As soon as there are several copies of a text – or as soon as you put it up on the wall (or on a website) – it is a published piece of writing.

'Publishing' is something that students can engage in, involving all the processes and stages of writing, including reading and re-reading. If students are invited to help in the process of producing a collection of writing, they can develop their skills of reading as editors (remembering that the first rule for offering constructive feedback is always to say something you like about the work before you say anything else).

Relevant studies in the Ideas and Research section help us see how such an invitation might contribute to student learning. For example, research tells us that:
- it is important that students feel a sense of relevance and authenticity about any writing exercises that tutors ask them to do; and
- peer tutoring in an informal way reaps benefits for student confidence.

So, involving students in the process and stages of student publishing seems to have much to be said for it.

Adult basic education practice in England and Scotland has recently seen a resurgence of published student writing.[50] In Ireland, it has been a widespread activity for some time, supported by activities such as NALA writing weekends.[51]

Editing and publishing is often left to busy tutors, collecting student writing from other busy tutors, taking it all home to turn into a printed, stapled collection with a cover. This tutor's account seems fairly typical:

> *We produce a magazine every year. Start the work in September. "Anybody want to write anything for the magazine?" We make about 60 copies. Done in a bit of a rush. Produced in time for Christmas. (Tutor, Cork Prison, interview, January 2006)*

In this section, we suggest ways in which student publishing could be designed as a course allowing existing students

to be the editors of their centre's publication – and in so doing, exercise and develop their skills and experience across numeracy, writing, reading, and speaking and listening. At the end of either course, students would be able to show evidence of their learning in the form of a portfolio of notes of meetings and drafts of writing. They would also be able to map this evidence to specific learning outcomes set out by FETAC.

Here are sketch outlines of two such courses. The first entails students producing and editing their own writing in the space of a 5-week course, acting as authors and editors. The second, spaced over 10 weeks, involves them as editors of writing by other students – commissioning and organising the work and acting as editors and publishers.

Course 1: 'Making a book'
5 sessions over 5 weeks

Overall aim: to provide a practical course in the process of drafting, editing, revising, proof-reading and publishing a publication of writing and photographs by the group.
Book print run: 10-20 copies

Learning objectives: to enable students to:
- gain experience and skills in writing for a readership;
- develop their ability to read draft writing by peers with the eye of an editor;
- identify features of writing that make it interesting to read;
- acquire and apply techniques of proof-reading;
- exercise their skills in decision-making in a group.

During the span of the course, students would:
- examine the constituent parts of published collections (contents pages, publisher's blurb, and so on);
- agree a topic and work plan to produce their own and have a first go at writing something on the topic;
- have a first careful read-around and guided feedback.

They would then re-read their work and add to it, and have a second read-around and feedback. By this time, it may be week three or four and the tutor will need to make copies of the whole set of drafts so that each student has a set.

There is time at this stage for a read-through. Some practice in proof-reading could be included as well as agreement

on the sequence the pieces should appear in, a few introductory words to the reader as to process and a title choice. A publishing event could complete the course or follow it, to which family and friends could be invited.

Course 2: 'Producing a magazine'
5 sessions over 10 weeks

Overall aim: to provide a practical course in commissioning, collecting and producing a magazine containing a variety of writing. To plan, carry out and review a production timetable from first meeting to celebration evening of publication. Magazine print run: 30-50 copies

Objectives: to enable students to:
- gain experience of producing a publication;
- develop their ability to read writing by peers with the eye of an editor;
- identify features of writing that make it interesting to read;
- acquire and apply constructive ways of giving feedback to peers;
- exercise their skills in decision-making as a group.

During the span of the course, students would:
- agree purpose, plan, timetable;
- examine samples of previously published magazines and discuss content and design ideas;
- draft and send invitation to other students to contribute writing, puzzles, pictures;
- collect, share and read submissions, discuss feedback to authors, send or give it to them, consider sequence and introduction;
- read and agree final version, check for errors, agree title and layout, complete and send off for printing, draft and send invitation to launch.

These are ideas for courses. Timing and content could of course be adapted to suit circumstances. As to evaluation, it would be important to collect student views of how they experienced the learning. It would be sensible to allow a few days' interval before asking them for their reflections. As always, the course aims and learning objectives provide the material against which evaluation could be invited.

The grid below offers examples of how either of these courses could enable students to collect evidence that would fulfil various FETAC learning outcomes, according to their level of ability and participation in the work. To fully satisfy a given component – for example, writing at Level 2 or shape and space at Level 1 – there would need to be more learning outcomes demonstrated (an average of six per component).

	Level 1	Level 2
Writing	Write for different personal and socially relevant audiences	Write, including drafting, at least five sentences so that they convey meaning or information
	Use some rules f writing appropriately	Use the rules of writing appropriately
		Use a range of different forms of writing to suit purpose and audience
Speaking and listening	Explore ideas and new vocabulary that is relevant and appropriate to a personal situation	Ask questions to gain information
	Communicate about past, present and future activities	Express opinions, facts and feelings appropriately
Quantity and number	Recognise the language of mathematics in everyday situations using elementary language	Estimate quantities to the nearest value of in broad terms
Shape and space	Use the language of measurement in relation to shape and form	Recognise the relationship between area and volume
Reading	Demonstrate awareness of text conventions, print material and the alphabet	Use simple rules and text conventions that support meaning
	Use word identification strategies	Use reading strategies
Quantitative problem solving		Find a solution to a real life quantitative problem
Setting learning goals	Identify a small range of short medium-term learning aspirations	Discuss different ways of learning

Different kinds of publishing[52]

There are different kinds of student publishing in adult basic education, each with its own purpose, intended readership, format possibilities and hidden 'message'. It's important to be clear which kind of project this is going to be. If it's to celebrate achievement, then it shouldn't be judged in the same way as a 'literary production'. This is where an introduction or magazine editorial can be helpful: it explains how the book or magazine was produced and who its intended readership might be.

Context 2: Ideas and research

Context 2: Ideas and research

In this section is a digest of key research influences on this guide. Please do not regard it as a complete exposition of all research that might be relevant. See it, rather, as a brief indication of the work in Ireland and elsewhere which has contributed to the concepts, principles and strategies that add up to a well-supported curriculum for change in adult basic education. References are given to further sources.

Literacy and numeracy as social practice

Research studies since the 1970s have shown that uses of literacy and numeracy change from place to place. By that, they do not mean *the ability to read and write and manipulate numbers changes*, but *the way in which people* **use** *written and numerical language.*[53] A particular focus on literacy has given this the heading 'literacy as a social practice.'[54]

The idea of literacy and numeracy as *something we do*, in various ways, for various reasons, introduced a change to earlier ideas, particularly about literacy. Until the 1970s, a 'great divide' theory had dominated, holding that societies were either primarily oral (and more primitive) or primarily literate (and more capable of rational thought).[55] By contrast, researchers since then have argued that we can only properly understand the way in which any individual or group uses literacy or numeracy if we pay attention to the context in which they use these things. This context is not only the physical setting or timing – the kitchen, the betting shop, the job interview – but also the purposes and relationships of the people involved. Along with the concept of context, social practice theorists have also offered those of the 'event' (observable behaviour) and the 'practice' (value, habit or custom). A literacy event might entail two people working out what to write for a poster giving a safety warning. The event is part of a 'dominant' literacy practice, whereby – in our culture, at this time – for

there to be legal evidence that a warning has been given, that evidence needs to be written.[56]

Our more everyday activities of, say, working out what to write on a greeting card have been called 'vernacular' literacy practices. (In both cases, it may be helpful to notice that the word 'practice' is very close to the more common word 'habit' or 'custom').

A social practice view of numeracy, like that of literacy, shows that there is much going on in everyday life that goes unnoticed. Studies of maths and numeracy in adults' lives have found that people regard the maths they can do as 'just common sense'; it is the maths they find difficult to do that they call 'mathematics'.[57] Other studies have shown, too, that it is school maths that many find difficult, not the maths they deal with all the time. In a study of how children and adults use mathematics, researchers observed and interviewed children and adults using mathematics at work (street maths), and then asked them to perform related 'school maths' tasks.[58] They found that in the 'street', problem solving went on all the time by 'the mental manipulation of quantities'. In the school-type situations, the emphasis on the symbols that represented the quantities and performance was seen as poor.[59] Their 'school maths' was weak; their 'street maths' strong.

As Juliet Merrifield has pointed out, recent cognitive and socio-cultural research has recognised learning to be:

> 'a process of making meaning – of organising and interpreting experience'. In this understanding, learning is both 'a cognitive process (happening in the mind) and a social process (shaped by community assumptions about values, meanings and purposes).'[60]

Ursula Coleman's work on the educational biographies of 136 adult basic education learners (almost all of whom had had direct experience of being labelled as 'lacking in ability' at school) and later, in the curriculum development project she led with students and tutors (drawing on the work of Vygotsky), has drawn attention to the connections to be made between carefully structured learning, language and cognitive development.[61]

To say that learning is a social process, as Juliet Merrifield comments, is not to say that all learning has to happen in a group, or to deny our human ability to create individual meanings. It does argue that our social context shapes our understanding.[62]

Curriculum for change

A useful source for curriculum theory in adult learning is the work of Mark Smith whose website, the Encyclopaedia of Informal Education, is both scholarly and accessible.[63] A model of curriculum which 'makes an explicit commitment to emancipation' is the model based on the idea of 'praxis'. Praxis, he explains:

'is not simply action based on reflection. It is action which embodies certain qualities. These include a commitment to human well-being, the search for truth and respect for others.'

In her book on this, Shirley Grundy argues that a curriculum is not just about learning 'things' but is a social act. The view of curriculum as praxis, she argues, regards the learning environment as social, not just physical, and regards an exclusively individualised approach to instruction as something to be questioned. 'Curriculum as praxis' means saying:
• knowledge is something which people together construct;
• critical learning is not learning to be negative, but engaging in 'a process of discernment';
• the whole teaching and learning activity is informed by an emancipatory interest – a freeing or liberating – which expects both to start with and to transform the learner's experience.[64]

The Brazilian educator Paolo Freire is the source most closely associated with ideas about 'praxis' as a combination of action and reflection. His theoretical analyses and learning and teaching methodologies transformed adult literacy in both the developing and the industrialised world. Freire identified three stages of learning: task related activities, activities concerned with personal relationships and 'concretisation' activities (perceiving the reality of oppression but believing in the possibility of change). He advocated a learning cycle, which starts with experience, leads to action, then to further reflection

and action again.[65] (We can see some links with our curriculum development spiral here). Essential to this process is dialogue.

In the literature on Freire's work, there is a stress on his interest in learning as having collective benefits. Education for liberation and emancipation is a collective educational activity which has as its goal social and political transformation.[66] If personal development takes place, it does so within that context.

NALA's debt to Freire is acknowledged in the *Guidelines for Good Adult Literacy Practice* (NALA 2005a: 9-10) and, for a short time, the trial in Ireland of an explicitly Freirean project known as REFLECT[67]. A fusion of Freirean principles with the practice of 'participatory rural appraisal', designed and piloted originally for use in developing countries, REFLECT engages participants in creating their own materials:

> *In a REFLECT programme there is…no pre-printed materials except a manual for the literacy practitioners. Each literacy circle develops its own materials through the construction of maps, matrices, calendars and diagrams that represent local reality, systematise the existing knowledge of participants and promote the detailed analysis of local issues. (Archer and Cottingham1996: 6)[68]*

Between 1997 and 1999, ActionAid Ireland worked to explore the application of REFLECT in Ireland, with the support of various organisations including NALA. A conference and training of trainer workshops included exploration of participatory methodologies.[69] One of the workshop participants, Rosamund Phillips, recalled that she used these methodologies with three different groups: students from literacy centres in Dublin City and Dublin North East wishing to set up a national forum for students; women literacy students in a local community in Dun Laoghaire; and a group of adults on a Back To Education Initiative. In each case, she used a map or diagram to explore the issues and discuss what to do. Work with reading, writing and number skills developed with the second and third of her groups but were not the focus of work in the first. As she reflected:

> *It is really important that students do not feel they are being treated like children. Some of the REFLECT tools and*

materials could appear childish and/or contrived (making models. maps, drawing, etc) and the reasons for using them need to be real and carefully explained.[70]

Multiple intelligences

In the 1980s, a psychologist called Howard Gardiner led a project at Harvard Business School called 'Teaching for Understanding' based on the work he had been doing on this. His research findings had challenged earlier assumptions about inherited or innate intelligence, arguing instead for an understanding of intelligence as a range of human capacities described by eight different intelligences.

In Ireland, these ideas were taken up in a four-year study to develop work in the school curriculum.[71] In a later study in America, practitioner researchers in adult basic education explored ways in which the theory could help literacy and numeracy work. They found that approaches inspired by multiple intelligences theory, could lessen students' maths anxiety and promote a democratic classroom environment in popular education.[72]

The chart below provides a summary of the eight intelligences, their key abilities, everyday uses and the roles and domains in which each might be required. This grid shows the code used for each intelligence:

Codeword	Full title
Word smart	Linguistic intelligence
Logic smart	Logical-mathematical intelligence
Body smart	Bodily-kinaesthetic intelligence
People smart	Interpersonal intelligence
Self smart	Intrapersonal intelligence
Music smart	Musical intelligence
Picture smart	Spatial intelligence
Nature smart	Naturalist intelligence

	Word smart	Logic smart	Body smart	People smart	Self Smart	Music smart	Picture smart	Nature smart
Key abilities	Sense making through language	Facility in use of numbers and logical thinking	Ability to control all parts of the body	Sensitivity to moods, feelings, beliefs and intentions of other people	Self-knowledge	Creating and communicating meaning from sound	Ability recreate images from memory	Ability to classify and distinguish features of the environment
Everyday uses	Writing a letter	Solving puzzles	Mending something intricate	Asking or giving directions; parenting	Religious practices	Appreciating a song on the radio	Finding ones way in an unfamiliar town	Gardening Organising collections
Roles, domains	Teaching, coaching	Knitting, budget analysis	Dancing, sign language interpreting	Negotiating, community organising	Inspiring others, writing poetry	Piano tuning, cheerleading	Carpentry, athletics	Tree warden, chef

Effective practice in teaching

Between 2003 and 2007, the NRDC conducted major new studies in England aimed at understanding what enables students to make progress in their learning of reading, writing and numeracy[73]. Altogether, these inquiries met with some 1,000 students.

The researchers explored attitude change as well as learning achievement. They interviewed tutors and students and undertook detailed logs of classroom observations across many sites in varied settings.

Among the key findings were:
– much of what constitutes good practice depends on where it happens and with whom;
– less experienced tutors tend to be more reliant on teaching 'scripted classes' which may not be well attuned to classroom diversity;
– more experienced tutors tend to be aware of the wider context, and readier to respond and adapt as issues arise in the classroom.

The findings on working in groups were interesting. In the reading study, students who spent more time working in pairs made better progress. In the numeracy study, students did better when they had worked in pairs or groups. In the writing study, students who progressed well were those who had been given time for discussion of writing tasks in the full group.

Among other findings and recommendations were:
for numeracy (243)[74]
– adult numeracy education should be seen as part of mathematics education and as a discrete subject in relation to adult literacy;
– tutors need a firm grasp of subject and pedagogical knowledge to enable them to be flexible in their approaches.

for reading (454):
– students who spent time in self-study between classes made better progress;
– students were progressing and achieving, supported by regular attendance;

– tutors need to develop strategies to balance pair and group work with time given over to students working alone (all the students researched were learning in groups rather than one-to-one tuition);
– students who spent less time working alone in class made better progress,

for writing (341):
– demonstrable progress in writing – particularly free writing, explored in this study – cannot be achieved quickly;
– tutors need to encourage students to compose their own texts and support them to do this through the careful setting up of writing tasks and use of talk;
– tutors need to approach the technical writing skills within the context of meaningful writing tasks rather than decontextualised exercises.

See *Effective Practice Studies Reports* (NRDC:2007)

Student empowerment

NALA's work in this area has not been presented as research but contains the ingredients of a consistent and long-term action research effort. The work has evolved over time. There have been conferences, grants, meetings and training initiatives; there is a rigour in planning and evaluation. The work engages participants in the findings, in a process of review and re-direction driven by insights gained at each stage. These are some of the signposts in the work:

• In 1986, the first national meeting of ABE students[75] was held, with an attendance of over 60.
• In 1989, Ireland was the only country to send students to take part in a workshop on learners' perspectives at a conference of the European Basic Education/Literacy Network in France.
• From 1998, students have been involved in the process of developing the Quality Framework.

Each year, VEC adult literacy services have been granted funds to support development with students. This process has included the development of student committees and of committee skills and public speaking. Such developments are particularly relevant to the idea of 'emancipation' at the heart of this curriculum framework.

'Emancipation' – the extra layer to the idea of 'empowerment' – has to do with one of the ways that 'power' itself may be understood, as Margaret Murray, NALA Development Worker observes:

> *Gender training theorists have shown that it can be understand in two ways:*
> * *power within – the self-confidence, self-awareness and assertiveness that individuals may gain;*
> * *power without – the energy of people organising with a common purpose or understanding to achieve collective goals.*

As Margaret notes: 'One person cannot empower another. However, they can facilitate empowerment.' (NALA:2004a) Arising from her own work in community development and from students' experiences of regional student forums and the NALA Student Sub-committee, Margaret posted up a useful list of 'hints and tips' for setting up student committees (April 2005), to be found on *www.nala.ie/students*.

Also of relevance here is work by NALA on citizenship and participation. See especially NALA (2005a) and (2006d).

Students as peer tutors
Noelle O'Dwyer's research[76] into students as peer tutors illustrates another way in which we can empower students in their learning. Her aim was to discover the best way for students to support each other, not to 'alert learners and practitioners to peer tutoring as though it were something entirely new', but rather to offer some 'clear signposts' for practitioners interested to supplement their efforts to encourage collaborative techniques. This was a small-scale action research project and its interest for a learning-centred curriculum for change is considerable.

In order to explore the use of peer tutoring, she carried out a wide review of existing literature on peer tutoring which, prior to her work, had been mostly on the use of peer tutoring among children in school settings. The literature seemed to suggest that improved confidence would be the main result of peer tutoring but that there could be the possibility of the benefits between tutor and tutee being unequal.

She then spent time interviewing and working with nine adult literacy students attending a weekly class in an outreach centre of the service for which she works. The group she researched also reported self-esteem as their main gain from the process. While peer tutoring might sound like a way for the tutor himself or herself to be out of a job, she actually found that students expected to be no less active – the emphasis being on facilitating, rather than depositing knowledge (we might even say, on 'emancipating').

From her observation of the adult students, Noelle found that what they expected of a good teacher, they were also showing in their interactions with each other ('listening', 'encouraging' and 'praising'). She found that the best approach to peer tutoring in an adult basic education class was one which emphasised informal collaborative activities based on familiar topics and which encouraged free discussion.

This appeared to work better than 'if they were involved in tasks that result in a right or wrong answer'. (Section 7.1) She also found that students were more comfortable offering each other tutoring support in a group than in one-to-one arrangements. And finally, she noted that the tutor's role as guide is crucial to the students; the students she interviewed wanted a tutor to steer them in the right direction and impart knowledge.

Numeracy

In Ireland, as elsewhere, practitioners are involved in energetic debates about numeracy. This note is an attempt to signpost readers of this guide towards some key issues in these debates and towards some useful sources.

NALA has supported the development of views about the connections between literacy and numeracy and between numeracy and mathematics and has sought to do this in ways which include students and practitioners. NALA recognises (2004b: 15) that there is no 'unified concept of numeracy among service providers who are not operating to a generally agreed vision or concept of numeracy', and is engaging practitioners in ongoing discussions about the key issues. There is thus a dynamic relationship between statements in NALA publications and thinking among service providers. The views described here as 'NALA' positions reflect this ongoing discussion.

Numeracy and literacy

How numeracy is viewed with respect to literacy is perhaps particularly important. NALA positions numeracy as part of literacy[77] but also accords it a separate definition.[78] While acknowledging that numeracy's association with literacy gives it strength, it also promotes the view that there is a need to develop numeracy in its own right. The NALA development plan also explicitly seeks to learn from numeracy development in other countries (in particular Australia, Canada, Denmark, the United Kingdom and the USA). In describing these developments, it situates numeracy in relation to debates about literacy or literacies. These debates often focus on how mathematical thinking might be used, with an emphasis on its use to assist choice and decision-making in society. Sometimes the purposes are focussed tightly on work or 'everyday' purposes, but in other contexts the focus is broader and includes the use of numeracy/mathematics to interpret and change social and economic conditions.

While the NALA 2004 definition of numeracy zooms in on 'the mathematical demands of real life situations such as everyday living, work-related settings and in further education', it also takes a high-level view that numeracy should contribute to the making of 'effective choices…in our evolving technological and knowledge-based society'.

What counts as numerate behaviour?

Drawing on ideas from these contexts, NALA has produced a comprehensive statement about what constitutes 'numerate behaviour'. In this statement, numeracy is much more than 'procedural' mathematics and 'skills', and numerate behaviour is much more than the practical application of procedural mathematics; it is essentially about managing life choices.

> *Numerate behaviour involves managing a situation or solving a problem in a real context…by responding to… information about mathematical ideas…that is represented in a range of ways…and requires activation of a range of… [knowledge and skills]. (NALA 2004b: 17)*

Numeracy and mathematics

NALA has also made explicit connections between numeracy and mathematics. In a paper (Maguire 2006) written for numeracy tutors, NALA challenges its member organisations to work towards a particular (integrative) view which 'recognises

the integration of mathematics, communication, cultural, social, emotional and personal aspects of each individual's numeracy in context'. In tandem with this thinking, NALA articulates an aspiration to create numeracy provision which, drawing on Coben (2002) offers both 'high use value and high exchange value'. That is, it 'builds on the practices and processes in adults' lives while at the same time meeting the requirements for accreditation or measurable outcomes'. The guide includes several references to practice in which tutors are working towards this aspiration.

Approaches to mathematics and to teaching
Implicit also in the NALA thinking about 'numeracy in context' are questions about how an individual teacher's philosophical position about mathematics may relate to her or his approach to teaching numeracy. In discussions largely isolated from thinking about adult literacy or literacies, mathematicians and mathematics/numeracy educators inside and outside Ireland have debated these issues.

According to Ernest (1991) for example, a teacher who strongly believes that mathematical knowledge is there to be discovered – rather than created – may be likely to adopt a 'transmission' approach to teaching; whereas somebody who takes the view that mathematical knowledge is socially constructed may be more likely to encourage students to see themselves as valid developers of mathematical thinking. Similarly, a teacher who thinks of mathematics as a set of skills rather than a set of social practices may tend to ask students to move in a linear way up a ladder-like structure from whole numbers to decimals; whereas a teacher more influenced by a social practice model may be convinced that students can successfully tackle real-life problems involving decimals even though they have not yet fully 'mastered' whole number calculations.

Such theoretical positions about the nature of mathematics do not, of course, often translate simply into numeracy tutors' pedagogical practice. For recent discussion of these issues, you might like to look at Malcolm Swan's (2006) *Collaborative Learning in Mathematics*. For online debate about mathematics and numeracy teaching, you might also like to visit the website of the (English) National Centre for Excellence in Teaching Mathematics, *www.ncetm.org.uk*.

Glossary of terms

The terms listed here concern methods of teaching and learning adult literacy and numeracy. Some of those listed have been used in the text of this guide; others, tutors will encounter in further reading. Tutors can choose from those which best suit their purpose.

cloze
– an approach to teaching 'reading for meaning'. The idea is to encourage students to do some intelligent guessing, from what comes before and after, as to what word might be needed to fill a gap in a given sentence or passage. Tutors delete certain words and invite students to supply what's missing. It is important that any answer that provides possible meaning should be allowed, rather than merely the word that happens to have been deleted. If students have been working on metalanguage tutors might want to delete certain parts of speech (e.g. adjectives, conjunctions). It is more usual to provide the exercise as a follow-up to a text that has already been read, to support students in their efforts to read strategically.

cognitive conflict (in mathematics/numeracy)
– the idea that it's productive to unearth and explore the sometimes conflicting mathematical ideas people have. (See also 'mistakes and misconceptions')

collaborative learning (in mathematics/numeracy)
– people develop mathematical understanding and competence more effectively and efficiently if they discuss ideas and methods, explore apparent contradictions and try to understand each others' approaches. A term often used to distance this approach from one based on acquiring procedural competence through individual practice.

comprehension
– the level of understanding of a written text or spoken utterance. With literal comprehension, the reader has access to the surface details of the text, and can recall details that have been directly related. With inferential comprehension, the reader can read meanings that are not directly explained. For example, the reader would be able to make inferences about the time of year from information given about temperature, weather, etc. and from characters' behaviour and dialogue. With evaluative comprehension, the reader can offer an opinion on the effectiveness of the text for its purpose.

connectionism (in mathematics/numeracy)
– the idea that mathematical concepts form an interconnected web of meaning, and that teaching is more effective when it helps students explore and create that web. For example, you can see ¾ in several ways:
• it's what each person gets if four people share three somethings equally;
• it's what one person is left with if she takes a whole something, splits it into 4 equal pieces and gives 3 of the pieces away;
• it's a 'division waiting to be done' i.e. if you punch 3 into a calculator and then divide it by 4, whereupon you get the answer 0.75, which also means three quarters;

- it doesn't mean very much unless you know what it's three quarters of…because three quarters of my salary might not be the same as three quarters of yours

Connectionist teachers support students to make all these connections, and are likely to do so iteratively, revisiting and adding to the web of meaning from time to time. They are also likely to challenge students to express and thus build their own understandings.

critical literacy

At the heart of this approach to teaching is the belief that while literacy enables students to make meaning from texts, critical literacy will empower them to understand how texts are trying to influence and change them as members of society. According to proponents of critical literacy, it is not simply a means of attaining literacy in the sense of improving the ability to decode words, syntax, etc.; the important thing is being able to have a discussion with others about the different meanings a text might have and teaching the potentially critically-literate learner how to think flexibly about it.

explicit/implicit knowledge

Native speakers of a language know implicitly how their language works through using it. Being specifically taught about aspects of form, structure and usage makes implicit knowledge explicit, enabling learners to consciously think and talk about how the language works, and how they use it themselves.

genre

Using a 'genre approach' to teach writing has gained a certain popularity in adult literacy and language teaching. Originally used to refer to an identifiable category or type of literary composition (e.g. novel, drama, short story, poetry, autobiography), the word 'genre' is now used more widely to refer to different types of written form, literary and non-literary (e.g. story, list, letter). Students can be encouraged to notice the different features of each and offered a writing frame (opening phrases of paragraphs, and suggested vocabulary) to write their own.

higher order/open questions (in mathematics/numeracy)

Questions which do more than "guess what's in the teacher's mind" . For example "Give me a pair of numbers that add to 50…now give me a different pair", or "If you cut a piece off a shape does its perimeter stay the same, increase or decrease?" Or "If you add two odd numbers, will the answer be odd or even?"

investigations and puzzles (See also "higher-order questions")

– exploring a situation mathematically, not necessarily to solve a "real-world" problem, but to see where the thinking leads. Essentially this means asking the "what if" question. It is often associated with mathematical puzzle-solving, where the problem is at least initially of interest mainly as an intellectual exercise. For example, when ten people meet at a party and everybody shakes hands with everybody else, how many handshakes occur? What if there were 20 people? Would the number double?" Investigators:

- make mathematical models (perhaps using drawings, real objects etc) of the puzzle, gather some data;
- generalise from the data to create a hypothesis;
- test the hypothesis against more data;
- iteratively come to a refined model, perhaps accompanied by a general "rule" which solves" the puzzle.

For the handshake puzzle, groups of students might shake hands with each other, draw diagrams to show the sequence, try this out with groups of different sizes, and come up with the idea that you can calculate the number of handshakes by multiplying the number of people at the party by the number of people less one, and dividing your answer by two.

language experience
– an approach to learning that uses the learner's own words to provide the basis for reading and writing. Tutor and student works together to produce a text based on something the student has said – usually, but not always, about themselves – in order to have the basis of something familiar for the student to use either as reading material or as the start of a piece of writing. Usually done on an individual basis, it can also be used with a group, with the tutor acting as scribe, in order to produce a collaborative piece of writing, whether a poem or a letter.

mathematical eyes
– viewing the world through a mathematical filter; seeing the mathematical aspects in everyday situations, being aware of how mathematics has been used to shape everyday objects or situations. For example, becoming aware that mathematical modelling underlies decisions about how to distribute public goods such as health services, that supermarkets use mathematically based weather forecasts when they are deciding how much salad to stock, or that crystals and wallpaper patterns exhibit the same kinds of symmetry.

metalanguage
This is the language we use when talking about language itself. It includes words like sentence, noun, paragraph, preposition, and thus to specify which bit of writing or reading we are noticing. Acquisition of metalanguage is seen as a crucial step in developing awareness of and proficiency in communication, particularly in written language.

mistakes and misconceptions (in mathematics/numeracy)
– the idea that 'mistakes' may sometimes be intelligent over-generalisations. For example, people may think that "multiplying makes numbers bigger", but then find it surprising when somebody tells them that 0.4 x 0.3 equals 0.12 (which is smaller than either 0.4 or 0.3). To keep their "multiplying makes things bigger" rule intact, they may then shift the decimal point and end up with an answer of "1.2" Teachers and students can treat this situation as evidence of muddled thinking, or can see "multiplying makes things bigger" as an over-generalisation from a perhaps more familiar world of whole numbers; they can then explore the limits of the generalisation. See also "rules and tools" and "connectionist teaching".

mnemonic

– a device to aid memory. They are particularly useful for some students as a technique to remember particular spelling patterns, e.g. '**I g**o **h**ome **t**onight' for the pattern '**–ight**'; or 'there's a **rat**' in 'sepa**rat**e' to remember that it is '**a**' rather than '**e**' in the middle syllable of this word.

modelling (see also "mathematical eyes")

– the idea that to use mathematics effectively as a problem-solving tool, it helps to:
- make a mental model of the situation;
- identify the aspects can be represented mathematically;
- make a mathematical model;
- choose and use appropriate mathematical tools;
- test the model using a range of data;
- reflect on the results in the context of the original situation;
- decide whether and how to use the results;
- communicate your ideas appropriately.

numeracy

NALA defines numeracy as 'a lifeskill that involves the competent use of mathematical language, knowledge and skills'.

phoneme

– the smallest contrastive unit of sound in a word. A phoneme may have variant pronunciations in different positions; for example, the first and last sounds in the word 'little' are variants of the phoneme /l/. A phoneme may be represented by one, two, three or four letters. The following words end in the same phoneme (with the corresponding letters underlined): *to*, *sho*, *through*.

phonic

– relating to vocal, or speech, sounds. As a plural noun, **phonics** denotes a method of teaching reading and spelling that is based on establishing the link between the sound of a word and its graphical representation.

phonological awareness

– awareness of sounds within words, demonstrated, for example, by the ability to segment and blend component sounds and to recognise and generate sound patterns such as rhyme.

rules and tools (in mathematics/numeracy)

– the idea that learners should be discouraged from relying on 'rules' like 'to multiply by ten, just add a zero'. Rules like this work only in limited situations – the 'add a zero' idea works only for whole numbers. Better to encourage them to think in terms of 'tools' and to explore where these tools might be useful. A sledgehammer is very useful, but it's not the ideal tool for cracking nuts.

skimming and scanning

– useful techniques to help students to overcome barriers caused by specific words in a text that are preventing them from deriving meaning from the whole. They are also useful to any of us

wishing to have a strategic approach to any reading. **Skimming** is what students can do to get an initial overview of the subject matter and the main ideas of a passage: skimming a whole page and picking up the sub-heads, key words, top and bottom sentences, for instance. In a search for particular information, students can be encouraged to **scan**: looking for particular words or phrases in a text. Key places to scan in the case of a textbook are the contents page and/or index. So, if you're trying to remember the quantities for baking scones, 'scones' is the word you scan for in the cookery book.

strategic reading
– an approach that encourages students to attempt to gain an overall meaning of a passage before worrying about word-by-word decoding. Approaches such as 'cloze', 'comprehension' and 'skim and scan' support this.

strategic writing
– an approach that prioritises composition over technical correctness or 'transcription'. Approaches such as 'language experience' and 'genre' support this.

turn-taking
– conversation is constructed through speakers taking turns; understanding how these turns are negotiated and signalled is of key importance.

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(2004b)   _Meeting the Numeracy Challenge – a development strategy for numeracy in Adult Basic Education_

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(2006c)   _Really Useful Guide to Words and Numbers: learner workbook._ (Marie Grogan, Pauline Hensey, Tracey Ingelbach, Patsy Kane)

(2006d)   _Who makes decisions and where in Ireland_: report on one-day course for adult literacy students. (Margaret Murray)

(2006e)   Political participation and literacy: conference report.

(2006f)   _Adult basic education in Ireland: towards a curriculum framework_ (Jane Mace, Juliet McCaffery, Joan O'Hagan

(2006g)   _Steps to Safety_ (FAS and NALA):

(2007)   Report on two student writing weekends. (Margaret Murray)

(2007a)   _Making Cents – How Do I Manage money?_

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Appendices

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Appendix (3) Organisations involved in adult literacy and numeracy tuition and support in Ireland

Literacy and numeracy support and development is available to adults both as specific provision and as part of training and work-based programmes, as shown below:

Vocational Education Committees (VECs)
Adult Literacy Services
Back to Education Initiative (BTEI)
Youthreach Centres
Senior Travellers Education and Training Centres
Vocational Training Opportunities Scheme (VTOS)
Community Education

FAS
FAS Community Training Centres
FAS/VEC Return to Education Programmes (Community Employment participants)
FAS local training initiatives

Workplace Basic Education
The Return to Learning Initiative (local authorities and VECs)
Skills for Work project (FAS Services to Business)

Irish Prison Education Service

Organisations providing for special needs
National Learning Network
Enable Ireland
Central Remedial Clinic
Rehab Group
St.Michael's House

Other providers
Family Resource Centres
Department of Justice Probation and Training Centres
Irish Congress of Trade Unions (ICTU) Congress Network Centres
Area Development Management (ADM) funded local partnerships and community groups
Community projects
Traveller Community projects

Notes

1   Until recently, 'learner' was the preferred term in Irish ABE. After learner meetings in 2005 recommended abandoning this term in favour of 'student', the word used originally by NALA, and that is the word used in this document. For the concept of student (learner)-centred and student (learner)-directed, see: NALA (2005):11

2   This refers to the National Adult Literacy and Numeracy Implementation Plan (NALA, 2004).

3   Focus group 5a, quoted in scoping study

4   Focus group 3a ditto

5   For more information on this "connectionist" view of teaching, see the Glossary

6   These notes on assumptions and beliefs draws on 'Thinking through mathematics' a free resource from NRDC (2006), and the NALA numeracy strategy (2004b).

7   Ditto

8   NALA 2003: pp. 56-57, 64 and 78)

9   NALA 2006

10   Frances Ward, email June 2007

11   Widely published in adult education, Alan Rogers has specialised in international policy in the field. The idea of literacy as being of secondary importance to decent living conditions and social justice is a theme of much of his writing; notably in – Literacy comes second: working with groups in developing societies, Development in Practice 10.2: 236-240, 2000

12   Knijnik, Gelsa, 1999, ZDM (Zentralblatt für Didaktik der Mathematik, International Reviews on Mathematical Education Volume 31 (June 1999) Number 3.

13   The educational programme involved young people and adults who contributed as learners, teachers, designers and users of the programme.

14   Ethnomathematics is Variously used to refer to
     •   the specific mathematical ideas and procedures that emerge from any culture or historical period (e.g in the extracts about the work of Gelsa Knijnik, the measurement of land as the "tractor time taken to hoe" rather than square metres)
     •   the idea that mathematics is not an invariant body of knowledge, but is different in different cultures, is in fact a product of that culture
     •   the idea that mathematics, seen as a cultural product, reflects the power relationships in the culture within which it was produced

15   Laurillard, D (1993)

16   Adapted from Learning Connections

17   MLJ Section 3, p.4-15

18   Storysacks is a resource for working in family learning. In Ireland this approach began to grow after training and conferences on the idea in 2006. See Keating (2004) for more information.

19   Nunes, Schliemann and Carraher (1993)

20   For examples of different ways of doing multiplication, see for example *www.ncetm.org.uk*

21   For stimulating discussion of mathematics in different cultures see: Zaslavsky (1973) or Ifrah (1981)

22   For useful ideas on this, see Kazemek and Rigg (1995) and Feder (2000)

23   Quoted from WIT/NALA Curriculum development notes, Sally Sweeney, 06

24   FETAC (2006) Certificate specification: level 1 in General Learning, Further Education and Training Awards Council This Certificate is classified as a major award and is 'worth' twenty credits. There are a range of minor awards, each worth five or ten credits and a combination of two or more of these can add up enough credits to make a Certificate. To achieve the minor award in reading (worth five credits) a student needs to be able to show evidence of six learning outcomes. This 'evidence' can take the form of a portfolio of work, and the guidelines for the award set these out. They may include, for example, a description by the tutor of what the student had done, or a record of the kind of reading undertaken.

25   Adapted from: Grief (2003), p.62-63

26   Focus group 3a, quoted p40 scoping study

27   Focus group 3b, ditto

28   Ditto

29   Focus group 5b quoted in NALA 2006f, p40
30   Focus group 7a
31   The third of the Statements of Quality set out in the NALA Evolving Quality Framework for ABE (2002) to be achieved by a centre or scheme is 'Teaching and Learning'. This evaluation exercise offers a useful tool with which to gather a picture of this.
32   With thanks to Columba O'Connor, DALC, June 2007
33   Mary Roche, NALA Journal spring 07
34   The group is part of a training and education programme at Exchange House Family Support Service for Travellers. It is funded by FAS and the City of Dublin VEC.
35   Coben and Thumpston (1995)
36   Adapted from Burton (2007)
37   Greg Brooks, Maxine Burton, Pam Cole, and Martine Szczerbinski (2007) Effective Teaching and Learning Reading. pages 9-10,London, NRDC,
38   For more examples see Mace 2002: 178-195
39   Sue Grief, Bill Meyer and Amy Burgess(2007) Effective Teaching and Learning: Writing. London, the National Research and Development Centre
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46   NRDC research publications on Reading, Writing, and Numeracy. Both full and summary reports are available
47   Learning Connections: An Adult Literacy and Numeracy for Scotland (undated p.45) Edinburgh, Communities Scottish
48   Lots are groups of riders and horses who go out together
49   Painkiller for horses
50   See Duncan (2007)
51   NALA (2007).
52   See: Mace, J and Tomlinson, K (2005) Teaching ideas for teaching writing. NIACE website. _www.niace.org.uk_ for more on this.
53   Roz Ivanic, a linguist, provides an account of this thinking in: Ivanic (1998): 53-73
54   In the opening chapter of their study of literacy in a town in England, Mary Hamilton and David Barton offer a clear summary Barton and Hamilton 1998: 3-23
55   Brian Street, an anthropologist, was among those to challenge the idea of a 'great divide' (Street 1984, 1995)
56   Fowler and Mace 2005: 3-4
57   Coben and Thumpston (1995) and Baxter et al (2006): 17
58   Nunes, Schlieman and Carraher, Street mathematics and
59   Reed and Lave 1981, p.442
60   NALA 2001:5
61   Coleman, 1999, 2001 and 2006
62   NALA 2001: 6
63   _www.infed.org/biblio/b-curric.htm_, see Smith (200a)
64   Grundy 1987: 115
65   Freire 1970: 68
66   Inglis 1997:14
67   Regenerated Freirean Literacy through Empowering Literacy Techniques
68   Ten years on, the approach had been used by over 350 organisations in 60 countries, not only for adult literacy work but as a means to 'strengthen people's capacity for communication through whatever medium is most appropriate to them.' (_www.actionaid.org.uk_ visited 11/4/06)
69   Maxwell 1999
70   Email correspondence, 15 May 2006

71   Hyland 2000

72   Viens and Kallenbach 2004

73   Studies were also carried out into the teaching and learning of ESOL and ICT. Full reports and summary version can be downloaded from *www.nrdc.org.uk* or obtained free by emailing publications@nrdc.org.uk

74   Numbers of students researched in brackets; numbers of tutors not included here.

75   For this paper, we revert to the term 'learners', since this was the term preferred between 1983 and 2004.

76   O'Dwyer, N (2005)

77   'Literacy involves the integration of listening, speaking, reading, writing and numeracy.' NALA (2004: 15)

78   'Numeracy is a lifeskill that involves the competent use of mathematical language, knowledge and skills.' NALA (2004: 11)

79   Adapted from – *http://www.dfes.gov.uk/curriculum_literacy/glossary/* and *http://www.dfes.gov.uk/curriculum_numeracy/glossary/*