Assessing Literacy and Numeracy at NFQ Levels 4-6 in ETBs:

Background Report

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SOLAS learning works

etbi Education and Training Boards Ireland *Boird Oideachais agus Oiliúna Eireann*

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Contents

Foreword

It is with great pleasure we present this background report, produced by Dr. Elizabeth McSkeane, on behalf of SOLAS and ETBI.

This work builds on the solid foundations of the SOLAS Guidelines and Toolkit for Initial and Ongoing Assessment of Adult Literacy and Numeracy at NFQ Levels 1–3. The recommendations emerging from that report, published in 2018, prompted a deeper exploration of screening and assessment practices across FET programme delivery at NFQ Levels 4, 5 and 6.

Supporting the assessment of literacy and numeracy across the whole of FET remains a firm commitment in the Further Education and Training Strategy 2020–2024. This strategy, accompanied by the 2020 FET Services Plan, places a strong emphasis on inclusion, skills and pathways for learners. It is therefore anticipated that the guidelines and toolkit emerging from this research will further augment literacy and numeracy assessment practices across Education and Training Boards.

This report details the high level of commitment and skill of all involved in delivery, whilst emphasising the need to support this diverse cohort of learners within the complex context of the many different programmes and providers that offer FET at Levels 4, 5 and 6.

Effective screening and assessment enables learners to experience richer educational experiences which are more aligned to their needs and aspirations.

The findings presented in this background report provide a wealth of detail on domestic and international assessment practices and greatly complement the accompanying Guidelines and Toolkit. We are fortunate as a sector to have gathered such information and trust that it will be a source of rich learning for all involved in the assessment and screening of literacy and numeracy.

The views and opinions expressed in this report are those of the authors and do not necessarily reflect the policy or position of SOLAS.

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Glossary of Acronyms

Acronym	Definition	Description
ABE	Adult Basic Education	Programmes and other learning activities designed to support learners aged 16 and over who have left school and who want to improve their skills in reading, writing, math, listening, and speaking.
ACSF	Australian Core Skills Framework	Framework describing five core skills of learning, reading, writing, oral communication and numeracy, at five levels of proficiency.
AfL	Assessment for Learning	An approach to assessment, designed by Black and Wiliam (1998) that mobilises potential of assessment to support learning.
AHEAD	Association for Higher Education Access & Disability	Membership body representing individuals that supports policy and provision for learners with disability in higher education.
ALO	Adult Literacy Organiser	Employed by one of the 16 Education and Training Boards, the ALO is responsible for managing the delivery of the Adult Literacy Service within the ETB.
AONTAS	Irish National Adult Learning Organisation	Advocacy organisation promoting adult access to high-quality lifelong learning opportunities.
BKSB	Basic and Key Skills Builder	UK company specialising in developing Education products designed to improve English and Maths Skills.
BTEI	Back to Education Initiative	Part-time courses for young people and adults, (over 16s) who have not completed the Leaving Certificate.
CASAS	Comprehensive Adult Student Assessment Systems	Non-profit US organisation that provides assessments of basic and academic skills for young people and adults and curriculum tools to support teaching, learning and assessment.
CEDEFOP	European Centre for the Development of Vocational Training	Agency of the European Union based in Greece. Supports Vocational Training through research and policy analysis.
CSPA	Core Skills Profile for Adults	A set of generic assessments of adult skills in use in Australia.
CTE	Careers and Technical Education	Term used in the US to designate tech-based and career-oriented education and training.
CVET	Career and Vocational Education and Training	Term used in the US to designate vocational education and training.
DE	Department of Education	The Department of Education is responsible for policy, funding and governance of primary and post-primary education in Ireland. The Department works to facilitate individuals through learning, to achieve their full potential and contribute to Ireland's social, cultural and economic development.
DEASP	Department of Employment Affairs and Social Protection	A department of the Government of Ireland responsible for the administration of the national welfare system. It oversees the provision of income support and other social services.

Acronym	Definition	Description
DES	Department of Education and Skills*[1]	Government of Ireland department whose responsibilities include Further Education and Training.
DFHERIS	Department of Further and Higher Education, Innovation, Research and Science	The Department of Further and Higher Education, Research, Innovation and Science is responsible for policy, funding and governance of the Higher and Further Education and research sectors and for the oversight of the work of the State agencies and public institutions operating in those areas.
EFL	English as a Foreign Language	Use or study of the English language by non-native speakers in countries where English is generally not a local medium of communication.
ESOL	English for Speakers of Other Languages	Programmes and learning activities that support people whose first language is not English to achieve functional competence in English.
ETB	Education and Training Board	The 16 Education and Training Boards are responsible for organising Further Education and Training within a defined geographical area in Ireland.
ETBI	Education and Training Boards Ireland	Organisation representing the 16 ETBs.
FET	Further Education and Training	Post-compulsory education and training programmes up to Level 6 on the National Framework of Qualifications.
HEA	Higher Education Authority	Statutory planning and policy development body for higher education and research in Ireland.
HNC	Higher National Certificate	A further/higher education qualification awarded in England, Wales and Northern Ireland. Equivalent to Level 5 QQI.
HND	Higher National Diploma	A further/higher education qualification awarded in England, Wales and Northern Ireland. Equivalent to Level 6 QQI.
ICT	Information and Communications Technology	Technologies that provide access to information through telecommunications, including internet, mobile phones, computers and other devices and platforms.
ILP	Individual Learner Plan	Individualised plan for learners, setting out learning goals, signposts of progress and achievement and programmes of study.
INOU	Irish National Organisation for the Unemployed	Membership body for organisations supporting the unemployed, including community-based resource centres, and national NGOs.
ITO	Industry Training Organisation	Network of sectoral organisations in New Zealand responsible for supporting delivery of vocational education and training.
ITP	Institute of Technology and Polytechnics	Network of Institutes which provide learners with applied learning pathways to acquire advanced technical skills.
IVEA	Irish Vocational Education Association	Representative body of the Vocational Education Committees: dissolved in 2013 and relaunched as ETBI.

1 Please note: The Department referred to as The Department of Education and Skills is the Government Department that had responsibility for Further Education and Training at time of writing of this report. Responsibility for Further Education and Training now rests with the Department of Further and Higher Education, Research, Innovation and Science. The Department of Education and Skills has since been renamed the Department of Education.

Acronym	Definition	Description
LLN	Language, Literacy and Numeracy	Term used in some countries to designate programmes and learning activities dedicated to basic skills in literacy and numeracy.
NAAC	National Apprenticeship Advisory Council	Advisory body to SOLAS Board on existing apprenticeships.
NAC	National Advisory Committee on Language, Literacy, Numeracy and Digital Literacy	Representative sub-group of ETBI which supports the FET Literacy and Numeracy Strategy. Advisory Committee to the current project.
NALA	National Adult Literacy Agency	Independent charity dedicated to supporting people with literacy and numeracy difficulties to take part in society and have access to learning opportunities.
NFQ	National Framework of Qualifications	A 10-level framework for the development, recognition and awarding of qualifications in Ireland.
NOS	National Occupational Standard	Specifications of knowledge, skills and standards required for workplace performance.
NRS	National Reporting System	In the US, an outcomes-based accountability system for adult education that describes standards and provides framework for assessment and evaluation. Tied to funding.
OECD	Organisation for Economic Cooperation and Development	Economic intergovernmental organisation set up to stimulate economic progress and trade. Represents 35 member countries (including Ireland).
PD	Professional Development	Educational programmes and other activities for professionals that support them in maintaining and improving their professional skills and competences.
PIAAC	Programme for the International Assessment of Adult Competences	International survey and reports on findings carried out by OECD in over 40 countries, designed to provide data on key cognitive and workplace skills needed for individuals and economies.
PLC	Post Leaving Certificate	Full-time programmes for young people and adults. Provided in PLC colleges and elsewhere, leading to QQI Major Awards Levels 5 or 6.
PTE	Private Training Establishment	Network of private organisations in New Zealand that deliver vocational education and training.
QQI	Quality and Qualifications Ireland	Independent State agency that promotes, maintains and develops the Irish National Framework of Qualifications.
RTO	Registered Training Organisation	Network of organisations in Australia that deliver vocational education and training.
SEN	Special Educational Needs	Term used to indicate learner has a disability or need that makes it difficult for them to learn.
SOLAS	An tSeirbhís Oideachais Leanúnaigh agus Scileanna/ Further Education and Training Authority	SOLAS is the State organisation with responsibility for funding, planning and co-ordinating Further Education and Training (FET) in Ireland.

Acronym	Definition	Description
TAFE	Technical and Further Education	Term used in Australia to designate vocational education and training that prepares students for employment.
TE	Tertiary Education	Term used in New Zealand to designate all post-compulsory education and training, including universities, institutes of technology and private training centres.
TEC	Tertiary Education Commission	New Zealand statutory organisation responsible for funding and supporting Tertiary Education Organisations and delivering the Tertiary Education Strategy. Tertiary Education encompasses all post-compulsory education in New Zealand.
TEO	Tertiary Education Organisation	Education and Training organisation in New Zealand that delivers tertiary education, training or assessment.
TVET	Technical and Vocational Education and Training	Term used in many countries to designate programmes and learning experiences that prepare students for employment; also encompasses informal and non-formal learning.
VET	Vocational Education and Training	Term used in many countries to designate education and training programmes that prepare students for employment in specific fields.
VTOS	Vocational Training Opportunities Scheme	A full-time education programme designed to support long-term unemployed adults.
WRAT	Wide Range Achievement Test	Standardised test designed to assess word reading, sentence comprehension, spelling and maths computation.

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Executive Summary

1. Purpose and Context of Project

This report documents the research and findings of a SOLAS/ETBI project designed to support assessment of literacy and numeracy in the context of Further Education and Training (FET) programmes at NFQ Levels 4, 5 and 6. The main output of this initiative, in addition to this final report on the project, is a handbook of good practice Guidelines for initial and on-going assessment of literacy and numeracy of learners following FET programmes in Education and Training Boards (ETBs). The project addresses Goal 2 of the Further Education and Training Strategy 2014–2019,[2] in particular the Strategic Objective to support Active Inclusion across all 12 elements of the FET Literacy and Numeracy Strategy 2014–2019.

A similar set of Assessment Guidelines for Levels 1, 2 and 3, designed to support practitioners and learners in ETB adult literacy centres, was published by SOLAS in 2018. The current project addresses the more complex context of the many different programmes and providers that offer FET at Levels 4, 5 and 6. The target group for these new Guidelines comprise several stakeholder groups:

- Adult literacy and numeracy tutors.
- Tutors of a wide variety of subject areas.
- Resource staff.

2. Research Methodology

The research and consultation process underpinning the development of these guidelines was carried out from March – October, 2019. An analytic framework of key topics was drawn up to structure the research:

Analytic Framework	Topic
Conceptual	Concepts of literacy and numeracy Generic and contextualised approaches Concept of competence
Contextual	Providers Programmes Content of assessment
Operational	Purposes of assessment: initial and ongoing Assessment strategies: integrated and stand-alone Assessment methods Resources to support assessment process Roles and responsibilities Uses of data generated by assessment process National structures and tools to support assessment
Recommendations for Guidelines	Assessment strategy Methods and materials Recording assessment results Challenges and risk factors

2 SOLAS (2014) "Further Education and Training Strategy 2014 – 2019," Dublin: SOLAS/An tSeirbhis Oideachais Leanúnaigh agus Scileanna/ Further Education and Training Authority. https://www.solas.ie/f/70398/x/920e2fa0b6/fetstrategy2014-2019.pdf

The topics identified were explored through a combination of:

- Desk research
  - International Literature Review, Australia, Canada, New Zealand and UK.
  - Review of context and current practice in Ireland.
- Field work
  - Focus group meetings, guided by a series of standard questions relating to pertinent aspects of assessment, were carried out with 12 of the 16 ETBs. The interview schedule is shown in Appendix 1. These meetings were held in May and June 2019 and reached literacy and numeracy practitioners as well as tutors and managers from: Apprenticeships, BTEI, VTOS, Training Services and PLC programmes.
  - Individual interviews, both face-to-face and telephone, were conducted with stakeholders including QQI, FET tutors and managers.

3. Key Questions

The analysis of the concepts and purposes underpinning literacy and numeracy assessment in FET at Levels 4, 5 and 6 generated more detailed questions. Analysis of these topics informed the development of Guidelines for FET at Levels 4, 5 and 6:

1. What is the optimum range and scope of definitions of literacy and numeracy, in the context of Levels 4, 5 and 6 FET programmes? This refers to boundaries between basic literacy and numeracy, and more advanced language/communication and mathematical skills; whether the distinction is useful or relevant in this setting.
2. Which dimensions of 'competence' are most relevant for literacy and numeracy in Levels 4–6 in FET? National and international conceptualisations of competence comprise multi-faceted dimensions of application in different contexts, some of which may be relevant to literacy and numeracy in an educational setting.
3. What are the acceptable outcomes of initial assessment? The spirit of FET is based on an inclusive ethos which seeks to support students[3] who may need help with learning skills, including literacy and numeracy. If, in some cases, the level of support needed is beyond the scope of what current FET structures can provide, protocols are needed to guide managers and practitioners in how best to support the prospective learner in engaging with the optimum learning environment for them.
4. Which elements of QQI procedures could be drawn on to support literacy and numeracy assessment? Although these Guidelines are devised with a different purpose from QQI procedures, it may nevertheless be possible to integrate some of the planning and monitoring processes outlined in the Guidelines with processes already operating, to meet QQI assessment and quality assurance requirements.

4. Findings of Literature Review

Some features of literacy and numeracy assessment currently practised in the further education and training systems in other countries informed the development of the Assessment Guidelines for FET in Ireland. This study examined systems and strategies in Australia, Canada, the USA, New Zealand and the UK.

Purpose of literacy and numeracy assessment
In these systems, assessment of literacy and numeracy in FET is carried out for a range of purposes:

- Initial screening.
- More specific, contextualised diagnosis of learning needs.
- Clarification of specific support needed by learners.
- In a small number of cases (the four UK systems) to award qualifications at the relevant levels.

Assessment Methods
In all cases, multiple methods are used to serve the purposes referred to above. These include:

- Generic texts, online or on paper, which

3 To reflect the diversity of FET, the terms 'student' and 'learner', 'tutor' and 'teacher' and 'course' and 'programme' are used interchangeably in the text.

perform an 'alerting' function.

- Standardised tests are used for initial assessment and sometimes as follow-up post-tests.
- Informal contextualised quizzes and tasks are designed for the learner's use to help them identify the literacy and numeracy they will need for a specific programme or occupation.
- More formal tasks contextualised to a programme or occupation are used by basic education experts.
- Observation of students' performance on naturally-occurring tasks in the workplace is highlighted in some systems.

5. Current Practice in Ireland

Initial assessment procedures are already well-developed in many FET programmes and centres in Ireland. For the most part, these address learners' literacy and, to a lesser extent, numeracy skills. A few centres reported that no initial assessment is conducted at certain levels of some programmes but this was the exception rather than the rule.

Initial assessments are carried out in different ways, in different settings, using a wide variety of tools and materials. This diversity occurs not only between ETBs, but also, within ETBs and within the same programme. Local conditions and practical considerations such as recruitment procedures, premises, staffing and other resources, geography and additional factors, influence the choice of assessment strategies and tools.

Some initial assessments take place before students enrol, and some afterwards. Initial assessment prior to enrolment is usually carried out for the purpose of placing the learner in the optimum learning environment, and for identifying suitable resources that will help them to manage any obstacles presented by the literacy or numeracy content of their programme. However, in some cases, the individual's support needs may be so great that they are advised to enrol in a different programme, or to engage with the literacy service.

Initial assessments that take place after enrolment work best when they are carried out at, or near, the start of the programme. If this process is deferred for some weeks, it may be too late to identify the relevant support needs and vulnerable learners may have dropped out by then.

Some generic tests which assess learner's literacy and numeracy skills on a stand-alone basis are currently in use for programme entrants at Levels 4, 5 and 6. A small number of programmes, especially those provided by contracted training providers, also use aptitude tests relevant to the programme sector.

Contextualised assessments, which embed the literacy or numeracy assessment in a task built around an authentic context, are used in many programmes and in most ETBs. These are often contextualised to the programme sector but topics from Induction Programmes and Learning to Learn inputs are also sometimes used as vehicles for initial assessment.

The informal interview forms part of the initial assessment processes in all cases where initial assessments take place. Assessors probe a wide range of topics with the aim of gaining a preliminary indication of the individual's learning readiness. This includes, but is not confined to, their literacy and numeracy skills.

Ongoing assessment takes place, for the most part, on a day-to-day basis, as part of regular monitoring of the learner's progress in the vocational content of the programme. This includes observation of class-work and performance on QQI assignments.

Repeat stand-alone tests are a feature of formal formative assessment of literacy and numeracy in some centres and programmes.

Formal formative assessment of literacy and numeracy is carried out in some centres and in those cases, is supported by relevant tools and resources such as tracking frameworks and recording instruments.

Informal formative assessment, which is woven into the regular interaction between tutor and learner and integrates assessment of literacy and numeracy into the technical programme content, is widespread.

Explicit and systematic connections between initial and ongoing assessment are embedded in procedures in a few settings. However, formal ongoing assessment or tracking of learners' progress in relation to specific literacy or numeracy needs identified during the initial assessment stage was the exception, rather than the rule.

The assessment strategy contained in the Guidelines, described in number 7 below, is informed by the findings of the both international literature review, and information on assessment practices currently implemented in Ireland.

Development of the Guidelines is also informed by the following conclusions arising from analysis of the key topics and questions explored.

6. Conclusions

The range and scope of literacy and numeracy content in FET programmes should address students' competence in relation to any aspect of language, communication and mathematics embedded in FET programmes at Levels 4, 5 and 6. These include:

- Basic level skills traditionally associated with literacy and numeracy programmes, such as spelling, grammar and basic number operations.
- Advanced literacy and number skills associated with higher levels of FET study and programmes, such as report writing, use of mathematical formulae etc.
- Wider dimensions that describe competence and application, including independence, fluency, ability to apply skills in different settings.
- For the most part, contextualised tasks, either created for the purpose of assessment, or carried out in the work of the programme in the formal learning setting or in workplace learning setting, provide the optimum assessment method.
- The overall purpose of literacy and numeracy assessment in the context of FET programmes at Levels 4, 5 and 6 is to support teaching and learning, so that learners can reach their learning goals.

Literacy and numeracy assessment should therefore address, not only knowledge and skill, but all dimensions of competence relevant to the programme content and context.

Initial assessment in FET at programme Levels 4, 5 and 6:

- Determines whether the learner is likely to need literacy or numeracy support to manage the demands of their chosen programme.
- Informs placement decisions about the best learning environment for their needs.
- Identifies those specific needs and the range of supports to be provided.

This process applies both to students who have been formally diagnosed with a learning difficulty, and those who have not, but who nevertheless need help with literacy and numeracy.

Initial assessment of FET learners' literacy and numeracy skills may be carried out, or at least initiated, during one or more of the following:

- Open day for ETB, programme or centre, organised to promote FET to the public.
- Group meeting of new learners who have enroled on a specific programme.
- Learning to Learn programme providing a session, a day or several days' introduction to study skills.
- Interview with new learner, either before or after their enrolment, attended by programme coordinator and sometimes tutor and/or resource staff.
- Induction Programme with individual learner or group, which may take place either before or after enrolment.

Ongoing assessment has the overall purpose of monitoring the learner's progress, specifically in the literacy and numeracy required to manage the demands of the programme.

- Informal formative assessment is an informal feedback loop between student and tutor which forms part of the day-to-day communication between them.
- Formal formative assessment involves periodic, purposeful reviews, when progress and difficulties are foregrounded and recorded, and action consciously planned.

Although informal formative assessment of literacy and numeracy usually takes place in the context of the technical programme content, it is important to make explicit reference to the literacy and numeracy content from time to time, especially in relation to those areas identified as problematic at the initial assessment stage.

Formal formative assessment of literacy and numeracy, especially those items identified as problematic in the initial assessment, should be carried out periodically in FET programmes at Levels 4, 5 and 6.

7. Assessment Strategy

The Assessment Strategy for assessing literacy and numeracy in the context of FET at programme Levels 4, 5, and 6 comprises tools to support:

- Methods for initial assessment.
- Method for ongoing assessment.
- Recording results of initial and ongoing assessment.

The Performance Task method, involving observation of the learner's performance of a real-life or constructed task, together with discussion, is the assessment strategy of choice for both initial and ongoing assessment of literacy and numeracy in FET.

Initial Assessment

The following methods provide information for managers to determine learners' support needs:

- Initial Interview; AND
- A choice of the following methods:
  - Skills demonstration (performance task) of generic literacy/numeracy.
  - Skills demonstration (performance task) of specific literacy/numeracy tasks related to the programme.
  - Skills demonstration (performance task) of literacy/numeracy in a context relevant to the centre e.g. Induction or Learning to Learn session or programme.

Ongoing Assessment

FET programme coordinators, tutors and resource staff all have a role in explicitly monitoring learners' progress in the literacy and numeracy learning goals identified during initial assessment; and also, in supporting learners in meeting any new demands that emerge later.

Recording Outcomes of Assessment

Assessment outcomes for initial and ongoing literacy and numeracy assessment in FET are recorded using two recording tools:

Individual Learner Plan (ILP) for the main outcomes of initial assessment.

Individual Progress Tracking Form, for the main outcomes arising from ongoing assessment.

The Individual Learner Plan (ILP) and Individual Progress Tracking Form facilitate the recording of key aspects of learners' literacy and numeracy needs, and their progress in working towards those learning goals. Evidence of progress recorded here may be generated by observation of the learner's work on a specially designed performance task. These may include tasks carried out in the normal course of their programme.

The Individual Learner Plan and the Individual Progress Tracking Form are teaching tools only. They are not designed for accreditation or statistical purposes and are used only by the learner and the tutor and any managers or resource staff who support their learning.

Practical Implications

The complexity of the processes involved in implementing literacy and numeracy assessment in the context of FET in programmes at NFQ Levels 4, 5 and 6, highlights the need for dedicated support for learners, staff and centres. These could include:

- Resource staff on site whose main role is to support subject tutors in navigating the demands of monitoring the literacy and numeracy of their own area, both in relation to teaching and assessment.
- Provision of literacy and numeracy support to students tailored to the setting.
- Provision of professional development opportunities for subject tutors.
- Administration and record-keeping to support identification and monitoring of literacy and numeracy needs, where these arise.

In large centres, these functions may need to be carried out by a resource team, such as the approach already implemented by the Support to Apprentices Group. It may be worth considering whether this model could be adapted for FET settings outside the apprenticeship programmes.

8. Recommendations

Implementation of the assessment strategy described above places new demands on practitioners and managers, and has resource implications for ETBs and individual centres. National, system-level tools and processes will also be needed to support a coherent approach to literacy and numeracy assessment across all FET providers, programmes and levels.

1. Literacy and numeracy framework: There is scope for the development of a literacy and numeracy framework which includes the wider dimensions of competence, designed for use across all education and training sectors and levels.

2. Literacy and numeracy audit: Designated stakeholders should carry out a national literacy and numeracy audit, comprising a comprehensive analysis of the literacy and numeracy content of existing modules and programmes and publish the outcomes as a literacy and numeracy FET handbook, for use by programme developers, learners, tutors and employers.

3. Consistent and integrated learning supports: The sector should address the need for consistent and integrated support to all learners, in all FET settings. This approach will ensure that support for learning is an integral part of programme planning and delivery for all learners, readily available in the learning setting, and not only triggered by a diagnosis of a learning difficulty.

4. Leverage the benefits of Universal Design for Learning (UDL) Principles and Technology Enhanced Learning (TEL): There have been significant developments in both UDL and TEL during the last FET Strategy and additional work in these areas is planned for the next FET Strategy. With adequate support and planning, both TEL and UDL can be used to good effect to assist initial and ongoing assessment of literacy and numeracy for learners.

5. Address increased demand on adult literacy service from FET: ETBs should continue to track, support and resource the extra demands placed on the adult literacy service as a result of its increased role in supporting higher FET learners.

6. Support literacy and numeracy assessment in FET: ETBs should continue to influence and facilitate access to dedicated literacy and numeracy support for all centres, and all programmes where FET is delivered at Programme Levels 4, 5 and 6.

Section One:
Introduction and Rationale

1.1 Project Aim and FET Context

This report documents the process and outcomes of a SOLAS/ETBI research project which addresses adult literacy and numeracy screening and assessment in the context of Further Education and Training (FET). The project sets out to produce Good Practice Guidelines, tools and supports for initial and on-going screening and assessment of literacy and numeracy of learners participating in Further Education and Training programmes at NFQ Levels 4, 5 and 6 in Education and Training Boards (ETBs). The initiative addresses a specific aspect of major policy priorities: literacy and numeracy obstacles which impact learners' experience of Further Education and Training in Ireland.

Tackling literacy and numeracy difficulties in Further Education and Training, (hereafter referred to as FET), was stated as a major priority in Goal 2 of the Further Education and Training Strategy 2014–2019,[4] in particular the Strategic Objective to support Active Inclusion across all 12 elements of the FET Literacy and Numeracy Strategy 2014–2019. An important component of this Literacy and Numeracy Strategy refers to the need to

> "Develop more reliable and fit-for-purpose screening and assessment systems by conducting research to identify and develop effective screening and assessment instruments to systematically identify the literacy and numeracy problems of those who come into contact with training." [5]

The urgency of this work was restated in Strategic Objectives 1 and 2 of the SOLAS Corporate Plan 2017–2019,[6] which refer to Skills for the Economy, and Active Inclusion respectively. The overall goals include the commitment:

> "…to expand[ing] FET access for socially, economically or educationally disadvantaged groups, such as long-term unemployed people, those facing literacy and numeracy challenges, people with disabilities, low-skilled workers and those aged 18–24 not in education training or employment."[7]

Similar goals are identified as a major priority in the European policy context, most recently in the Key Competences for Lifelong Learning:

> "Key competences are those which all individuals need for personal fulfilment and development, employability, social inclusion, sustainable lifestyle, successful life in peaceful societies, health-conscious life management and active citizenship."[8]

Whereas the original 2006 Key Competences Framework embedded literacy and numeracy in other competences,[9] the revised, 2018 version **foregrounds literacy as a Key Competence in its own right**. Significantly, the updated Key Competences framework recommends that Member States

> "support the development of key competences paying special attention to raising the level of

4 SOLAS (2014) "Further Education and Training Strategy 2014–2019," Dublin: SOLAS/An tSeirbhis Oideachais Leanúnaigh agus Scileanna/ Further Education and Training Authority. https://www.solas.ie/f/70398/x/920e2fa0b6/fetstrategy2014-2019.pdf
5 ibid, p. 90.
6 SOLAS (2017) "Corporate Plan 2017–2019 SOLAS," "Strategic Goal 1, Skills for the Economy: FET provision is aligned with the labour market & learners' employability and lifelong learning needs…Strategic Goal 2, Active Inclusion: FET provision is equitable and inclusive, reflecting Government policies," p10. https://www.solas.ie/f/70398/x/0e99a88016/solascorporateplan.pdf
7 ibid, p. 5.
8 Council Recommendation of 22 May 2018 on Key Competences for Lifelong Learning, p7. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_.2018.189.01.0001.01.ENG&toc=OJ:C:2018:189:TOC
9 Council Recommendation: Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning (2006/962/EC). https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:394:0010:0018:en:PDF

achievement of basic skills (literacy, numeracy and basic digital skills)."

Furthermore, the 2018 Recommendation highlights the potentially supportive role of assessment in competence development:

> "Assessment may help in structuring learning processes and in guidance, helping people to improve their competences also with regard to changing requirements on the labour market."[10]

This observation is of particular relevance to the purpose of this project, where assessment is designed, not to provide qualifications in literacy and numeracy, but to support learners in programmes that will lead to qualifications in vocationally-oriented programmes. This study explores how assessment can help in "structuring learning processes," both in initial assessment, and in relation to the role of on-going assessment in supporting teaching and learning.

Significant progress has already been made in working towards these national and European goals, in relation to learners in the adult literacy and community strands of FET. A 2018 research project conducted by SOLAS and ETBI produced a set of national Guidelines for the assessment of adult literacy and numeracy in ETB adult literacy centres at NFQ Levels 1, 2 and 3[11]. Those Guidelines are complemented by a resource pack which supports implementation, and a project report which documents the extensive process of stakeholder consultation with practitioners and managers in every ETB. The project report also details the research and evidence base underpinning the Guidelines.

The current project involves the development of resources tools with a similar purpose to the Guidelines now available for Levels 1, 2 and 3, but in the more complex context of the many different programmes and providers that offer FET at Levels 4, 5 and 6, leading to the development of a FET-wide approach to literacy and numeracy assessment in Ireland.

1.2 Scope of Project: FET Provision in Ireland

FET provides many education and training opportunities for a very large and diverse cohort of almost 338,000 beneficiaries[12] each year. These include early school leavers, adult literacy learners, apprentices, adults returning to the workforce or embarking on a career change, and others who want to maximise their career opportunities through the high-level courses now available under FET.

Most of the FET programmes in Ireland are accredited by the Quality and Qualifications Ireland (hereafter referred to as QQI), who validate education and training programmes and make awards for Levels 1–6 on the 10-level National Framework of Qualifications.[13] These correspond to European Qualifications Framework Levels 1–5[14] and range from awards for adult literacy and numeracy learners, to Apprenticeships and Diplomas. There is currently a total of 2,044 QQI awards in 79 fields of learning.

Table 1: Number of QQI Awards by Level[15]

Level	Number of Awards	Level	Number of Awards
Level 1	29	Level 4	180
Level 2	28	Level 5	890
Level 3	168	Level 6	749

These educational opportunities are offered across a variety of programmes designed for different target groups and institutions.

10 Council Recommendation of 22 May 2018, op. cit., p. 2.
11 SOLAS (2018) "Initial and Ongoing Assessment of Adult Literacy and Numeracy at NFQ Levels 1, 2 and 3 – Guidelines, Toolkit and Research Report," Dublin: SOLAS An tSeirbhis Oideachais Leanúnaigh agus Scileanna/ Further Education and Training Authority. https://www.solas.ie/f/70398/x-/5451e6dd60/initial-and-ongoing-assessment-of-adult.pdf
12 SOLAS (2018) "Further Education and Training Services Plan" Dublin: SOLAS An tSeirbhis Oideachais Leanúnaigh agus Scileanna/ Further Education and Training Authority, p. 7. https://www.solas.ie/f/70398/x/47454f2b77/15083_solas_fet_services_plan_2019_web.PDF. A beneficiary is a term which describes a learner who has benefited from the FET budget during a given reporting period. A single learner may benefit from the FET budget more than once during that period by engaging in learning activities across a number of different services.
13 See Appendix 2 for a Table of Equivalencies between the 10-level Irish NFQ and the 8-level EQF.
14 QQI (1999) "Referencing of the Irish National Framework of Qualifications (NFQ) to the European Framework for Lifelong Learning (EFQ)" Dublin: National Qualification Authority of Ireland. https://www.qqi.ie/Documents/Referencing%20Irish%20NFQ%20to%20the%20European%20QF%20for%20Lifelong%20Learning.pdf
15 QQI Awards. https://qsearch.qqi.ie/WebPart/Search?searchtype=awards

FET is a term used in Ireland to refer to lifelong learning opportunities that target the full spectrum of stages from post-compulsory education to high-level apprenticeships.[15] Listed below are organisations with a role in development, delivery or policy formation for FET.

1. The **Department of Further and Higher Education, Research, Innovation and Science** is a department of the Irish state with responsibility for education and training.

2. **SOLAS** is the National Further Education and Training Authority, with a statutory remit to: fund, co-ordinate and monitor the full range of FET initiatives, in partnership with ETBI and the 16 Education and Training Boards (ETBs); to oversee development of programmes and qualifications, including new apprenticeships; to develop and disseminate policy through Strategic Frameworks and Corporate Plans. SOLAS also manages the National Apprenticeship System and maintains a national register of employers approved to take on apprentices.[16]

3.a **The Apprenticeship Council** was launched by the Minister for Education and Skills in November 2014. The establishment of the Council was a key action in the implementation of recommendations from a 2014 Review of Apprenticeship Training in Ireland. The Council is tasked with the expansion of apprenticeship into new sectors of the economy and identifying sectors where new apprenticeships can make a real difference to both employers and employees.

In carrying out its role, the Council takes account of ongoing and future skills needs, including through data and reports produced by the Expert Group on Future Skills Needs and the Skills and Labour Market Research Unit.

3.b **National Apprenticeship Advisory Committee (NAAC)** advises the Board of SOLAS on apprenticeships in place prior to 2016. The Committee includes representation of employers, trade unions, education and training providers in further and higher education via an Institutes of Technology Apprenticeship Committee (ITAC), the Department of Education and Skills, SOLAS and the HEA.

To support its work, the NAAC establishes working groups representative of the main stakeholders to develop guidelines on curricula, and a small group of experts, also representing the stakeholders reviews and develops apprenticeship curricula in accordance with the guidelines. The Committee also provides advice on the designation of new occupations in apprenticeship training, drawing on scoping studies.

4.a **Education and Training Boards Ireland (ETBI)** and the national network of 16 ETBs were established in June 2013, replacing the IVEA and the Vocational Education Committees.[17] ETBI is the association established to represent the 16 education and training boards and promote their interests. It provides a range of support services, including training, research and other supports.

4.b **Education and Training Boards (ETBs)** ETBs are statutory authorities which have responsibility for education and training, youth work and a range of other statutory functions. ETBs manage and operate second-level schools, further education colleges, multi-faith community national schools and a range of adult and further education centres delivering education and training programmes.

ETBs are the main providers of FET in Ireland, including vocational and occupational training in PLC Colleges and Training Centres and through Youthreach for young people, VTOS[18] and BTEI, literacy and community education.[19]

5.a **Quality and Qualifications Ireland (QQI)[20]** QQI is an independent State agency responsible for promoting quality and accountability in education and training services in Ireland. It was established in 2012

16 Generation Apprenticeship.ie website, https://apprenticeship.ie/
17 ETBI website, https://www.etbi.ie/
18 Department of Education and Skills website which details further information on the VTOS scheme. https://www.education.ie/en/Schools-Colleges/Services/Further-Education-and-Training/Vocational-and-Training-Opportunities-Scheme-VTOS-/
19 Department of Education and Skills website which details further information on the BTEI initiative. https://www.education.ie/en/Schools-Colleges/Services/Further-Education-and-Training/Back-to-Education-Initiative-BTEI-/
20 QQI website, https://www.qqi.ie/

by the Qualifications and Quality Assurance (Education and Training) Act 2012 (available at http://revisedacts.lawreform.ie/eli/2012/act/28/revised/en/html. QQI promotes, maintains and develops the Irish NFQ.

5.b **National Framework of Qualifications (NFQ)** is a 10-level framework for the development, recognition and awarding of qualifications in Ireland.

6. **Learners**
SOLAS values the voice of the learner in the development of a strong FET sector. Ireland's Further Education and Training (FET) Strategy 2014 – 2019 commits to listen to and consult with learners in further education and training. Specifically, 'Strategic Objective 3.1 'Respond to the needs of learners,' states: Systematically benchmark learners' views and satisfaction with their FET programme on an on-going basis through the establishment of a Learner Forum and appropriate Learner Surveys. Throughout the development of the SOLAS FET Strategy (2014-2019), this commitment to listen to, and consult with learners in FET has resulted in the National FET Learner Forum and also the NALA Annual Student Days. NALA Annual Student Days gather and share learners' views and satisfaction with their FET programmes, and contribute to this strategic objective.

   The National Learner Forum allows adult learners to influence Further Education and Training (FET) policy for the first time. The Forum has reached over 1,900 learners. The project consists of one national event and a series of 16 regional events held at Education and Training Boards across Ireland each year. At each event, learners from across the FET sector are asked to share their experience in FET and offer recommendations on how to improve services. Learners' responses are documented and reported back to key stakeholders to be used in future policy planning. (AONTAS, 2020)

   The importance of the learner voice will continue to be supported and emphasised in the FET Strategy 2020-2024 and subsequent strategies.

7. **Advocacy & Representative Organisations**
Includes National Advisory Committee on Adult Literacy, NALA, AONTAS, INOU, Trade Unions, AHEAD, & manager and tutor organisations and others.

8. **Industry Representatives:** Certain FET programmes are developed in consultation with the relevant partners in industry and business.

9. **Non-ETB Providers:** Some community schools and secondary schools provide Post Leaving Certificate programmes.

The diversity of FET in Ireland, which is partly illustrated here by the wide range of programmes and levels covered, has a significant impact on the scope of the current project. Whereas the Guidelines for Levels 1, 2 and 3 focus on QQI modules which describe reading, writing and numeracy at those levels, in the context of programmes at Levels 4, 5 and 6, the literacy and numeracy content is almost always embedded in the subject content of the programme. This structural difference influences several key aspects of these Guidelines. The target group at the higher levels is both wider and more diverse, as the Guidelines must cater for several groups of stakeholders, including:

- Adult literacy and numeracy tutors.
- Tutors of a variety of subject areas.
- Resource staff who may be on hand to provide support.

The complexity of this context may present a challenge for FET practitioners. However, it is envisaged that the National Assessment Guidelines developed as a result of this project will support both practitioners and learners in negotiating the literacy and numeracy demands of Levels 4, 5 and 6 programmes. As well as this, the diverse vocational content will provide a context within which learners can work on their literacy and numeracy in an immediate, meaningful situation.

That is not to say that their learning goals should be confined to the vocational elements of those skills. Rather, these may provide motivation, and a starting point that can be consolidated to encompass the literacy and numeracy involved in daily life.

1.3 Document Structure

The findings of the research conducted as part of the development of the Guidelines for assessing literacy and numeracy in FET programmes at NFQ Levels 4, 5 and 6 are presented in the following sections:

- Section One concludes this introduction with an overview of the methodology of the study.
- Section Two explores key conceptual questions underpinning literacy and numeracy assessment.
- Section Three summarises the findings of an international literature review, which describes assessment procedures, methods and support tools currently in use in Australia, Canada, the UK, the USA and New Zealand.
- Section Four analyses the process and outcomes of a stakeholder consultation.
- Section Five analyses key topics and concepts arising from the data which are relevant to the development of Guidelines for Ireland. This final section also contains a summary of the key features of the Guidelines and support structures needed to ensure effective implementation. The study concludes with an exploration of potential obstacles and risk factors, along with recommendations for future action needed to support implementation of the Guidelines.

1.4 Methodology of Study

This study was carried out between March and October, 2019, using a combination of qualitative approaches to data collection. Qualitative methods facilitated exploration of the complexities of assessment practices and the context within which these operate, both internationally and within ETBs in Ireland.

The study set out to explore:

- International assessment strategies and tools that work well in the context of literacy and numeracy in FET.
- Current practice in Ireland.
- The elements of national and international practice suitable for Guidelines on assessing initial and ongoing assessment of literacy and numeracy in the context of FET.
- Stakeholder priorities and implementation issues.

Data on these topics were gathered through a combination of

- Desk research:
  - International Literature Review, Australia, Canada, the UK, the USA and New Zealand.
  - Review of context and current practice in Ireland.
- Field work:
  - Focus group meetings with 12 of the 16 ETBs, organised around semi-structured interviews, were held in May and June 2019. Focus group participants included adult literacy and numeracy practitioners and also tutors and managers from Apprenticeships, BTEI, VTOS, Training Services and PLC programmes.
  - Individual interviews with key stakeholders took place during the same period. These included FET tutors and managers and representatives of QQI.

An analytic framework to structure the research was drawn up at an early stage and periodically expanded, in the light of insights arising from the literature review and fieldwork. The final version of the framework is given in Appendix Two.

The findings of the project informed the development of the companion document to this report, the FET Handbook of National Guidelines for Programme Levels 4–6.[21] The work was carried out in collaboration with the SOLAS Learner Support Team, reviewed periodically by a peer reviewer and overseen by the ETBI Literacy, Numeracy and Basic Skills Network who acted as the advisory group for this project.

21 SOLAS (2021) "Assessing Literacy and Numeracy at NFQ Levels 4-6 in ETBs, Dublin, SOLAS (Forthcoming)." Dublin: SOLAS (forthcoming).

Section Two:
Concepts and Practice

Given the diversity of Further Education and Training programmes and learning environments described in Section One, the assessment of literacy and numeracy at Levels 4, 5 and 6 introduces complexities, both in relation to practice, and also, in underlying concepts. Before identifying methods, tools and materials for National Assessment Guidelines, it is necessary to clarify first what is meant by the terms 'literacy' and 'numeracy' in FET at Levels 4, 5 and 6; whether those concepts are understood in exactly the same way as they are used in Levels 1, 2 and 3 programmes; or, if there are differences, what these differences are and what impact they might have on the practicalities of literacy and numeracy assessment in FET programmes delivered at the higher levels.

2.1 Definitions of Literacy and Numeracy

The following EU and OECD definitions of literacy and numeracy show that both concepts share several common features.

Figure 1: Definitions of literacy and numeracy

LITERACY	NUMERACY
EU Key Competences for Lifelong Learning[22] Literacy is the ability to identify, understand, express, create, and interpret concepts, feelings, facts and opinions in both oral and written forms, using visual, sound/audio and digital materials across disciplines and contexts. It implies the ability to communicate and connect effectively with others, in an appropriate and creative way.	**EU Key Competences for Lifelong Learning[23]** Mathematical competence is the ability to develop and apply mathematical thinking and insight in order to solve a range of problems in everyday situations. Building on a sound mastery of numeracy, the emphasis is on process and activity, as well as knowledge. Mathematical competence involves, to different degrees, the ability and willingness to use mathematical modes of thought and presentation (formulas, models, constructs, graphs, charts).
OECD[24] Literacy: understanding, evaluating, using and engaging with written texts to participate in society, to achieve one's goals, and to develop one's knowledge and potential.	**OECD[25]** Numeracy: the ability to access, use, interpret and communicate mathematical information and ideas, in order to engage in and manage the mathematical demands of a range of situations in adult life.(OECD, 2012). Numeracy is further defined in terms of the concept of 'numerate behaviour' that involves managing a situation or solving a problem in a real context by responding to mathematical information and content represented in various ways.

22 Council Recommendation of 22 May 2018 op.cit, p 8. Key Competence for Lifelong Learning 2018. https://op.europa.eu/en/publication-detail/-/publication/297a33c8-a1f3-11e9-9d01-01aa75ed71a1/language-en
23 ibid.,p 9.
24 OECD (2016), 'The Survey of Adult Skills: Reader's Companion, Second Edition, OECD Skills Studies', OECD Publishing, Paris, p 19.
25 Ibid., p.24.

According to these definitions, the terms 'literacy' and 'numeracy' both emphasise practical application and the ability of the individual to use knowledge and skill in real-life situations. These concepts are:

- **Multi-faceted,** in that they involve skill, and also knowledge and understanding.
- **Purposeful**, as they address engagement, action and the pursuit of goals.
- **Context-bound**, being influenced by the purpose, setting and the task at hand.

Additional elements such as problem-solving and the focus on interpretation, process and modes of thought, introduce a significant metacognitive dimension to these internationally-recognised definitions.

Analysis of the two definitions of numeracy given above raises an important question which is especially relevant to programmes at Levels 4, 5 and 6. The Key Competences for Lifelong Learning is a level-free European Reference Framework which defines the eight key competences[26] "necessary for employability, personal fulfilment and health, active and responsible citizenship and social inclusion."[27]

Although the eight key competences are level-free, in Mathematical Competence,[28] **'numeracy' is the 'foundation' on which 'mathematical competence' is built. This implies that numeracy designates a set of basic skills, whereas 'mathematical competence' is more advanced.** The OECD definition, in contrast, emphasises a dynamic relation between the two terms, in which 'numerate behaviour' responds to 'mathematical information' which does not necessarily suggest a clear distinction between the two terms.

This raises the question as to the scope of literacy and numeracy which is relevant to National Assessment Guidelines for Levels 4, 5 and 6 FET programmes: whether assessment should focus on the basic building blocks of literacy and numeracy, as defined, for example, by relevant QQI content at Levels 1, 2 and 3; or whether any language, communication and mathematical skills embedded in FET programmes at Levels 4, 5 and 6 should be considered as relevant and therefore, part of the set of literacy and numeracy skills to be assessed.

How this question is answered will have significant practical and operational implications, not only in the range of materials and tools required for each, but also, in the implementation structures such as staffing, roles, responsibilities and resourcing strategies. This key question is explored in more detail in the light of the data gathered for the international literature review and also, arising from the consultations with ETBs and other stakeholders.

26 Literacy competence, multilingual competence, mathematical competence and competence in science, technology, engineering, digital competence, personal, social and learning to learn, entrepreneurship, cultural awareness and expression.
27 Council Recommendation of 22 May 2018, op. cit., p. 7.
28 Ibid., p. 9. Council Recommendation on Key Competences (2018/C 189/01), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018H0604%2801%29

2.2 Competence

The concept of competence has gone through many definitions and has evolved from narrow, often fragmented, atomised outcomes associated with teacher-proof curriculums, to encompass a more holistic concept. Competence is one of the strands which defines the QQI National Qualifications Framework.[29]

Figure 2 below shows that the same concept is also found in the work of the Council of Europe, CEDEFOP and in the European Reference Framework of Key Competences for Lifelong Learning:

Figure 2: Definitions of 'Competence' [30]

The application of knowledge to a set of tasks that is typically acquired by practice and reflection. It is the effective and creative demonstration and deployment of knowledge and skill in human situations. Such situations could comprise general, social and civic ones as well as specific occupational ones.

QQI

To act in a competent way, a person deploys relevant values, attitudes, skills, and knowledge and critical understanding in a specific situation.

Council of Europe

Ability to use knowledge, skills and personal, social and/or methodological abilities in work or study situations and in professional and personal development.

CEDEFOP

...a combination of knowledge, skills and attitudes, where:

- knowledge is composed of the facts and figures, concepts, ideas and theories which are already established and support the understanding of a certain area or subject;
- skills are defined as the ability and capacity to carry out processes and use the existing knowledge to achieve results;
- attitudes describe the disposition and mind-sets to act or react to ideas, persons or situations.

Key Competences for Lifelong Learning

29 QQI (2013) "Quality Assuring Assessment: Guidelines for Providers," Dublin: QQI p. 53. https://www.qqi.ie/Downloads/Quality%20Assuring%20Assessment%20-%20Guidelines%20for%20Providers%2C%20Revised%202013.pdf

30 QQI (2013) op. cit., p. 53. Council of Europe (2018) "Reference Framework of Competences for Democratic Culture Vol 3: Guidance for Implementation," Strasbourg: Council of Europe Publishing, p. 15 . https://rm.coe.int/prems-008518-gbr-2508-reference-framework-of-competences-vol-3-8575-co/16807bc66e COUNCIL RECOMMENDATION of 22 May 2018 op. cit., p 7.

'Competence' therefore, refers not only to knowledge of theory or procedures or facts, but is intertwined with action, involving the use of technical skills applied in a certain way, which encompasses interpersonal behaviour and attitudinal dimensions appropriate to the context.

These features of 'competence', combined and adapted according to the requirements of the situation, are consistent with the concepts of literacy and numeracy outlined above. This suggests that literacy and numeracy assessment – and, by implication, teaching – should address not only facts, procedures and technical know-how – but also insight, context, and self-reflection, all the elements that are summed up in the concept of 'competence'.

2.3 Purpose

QQI programmes at Levels 4, 5 and 6 are already supported by assessment processes which comprise a wide variety of methods and procedures. These include tools such as marking schemes, criteria and instructions for the development of assessment briefs. Assessment in that context is carried out with a specific purpose: to support the awarding of qualifications in the learner's vocational programme of choice.

In contrast, literacy and numeracy assessment carried out within vocational programmes serves different priorities. Figure 5 below lists six broad purposes for assessment,[31] and highlights those which are most relevant to Guidelines on Literacy and Numeracy assessment in FET.

Figure 3: Purposes of Assessment

1. Alerting: identify the existence of a general learning need.
2. Placing: identify the broad level at which a learner should be working.
3. Diagnostic: identify learning needs.
4. Formative: support and manage the process of learning and teaching.
5. Summative: recognise or certify learner achievement.
6. Evaluation: identify the strengths and weaknesses of learning processes or programmes.

Although summative assessment may lead to awards in Communications and Mathematics at Levels 4, 5 and 6, the Guidelines developed as part of this project focus on **the literacy and numeracy content which is embedded in vocational programmes,** rather than the extensive language and mathematical content of stand-alone programmes. Summative assessment is therefore not the focus of these Guidelines, although effective practice directed towards the other purposes listed here should support summative outcomes.

The focus of literacy and numeracy assessment, in this context, is on initial assessment of learners' needs; and ongoing assessment of progress in literacy and numeracy, to the extent that this supports their broader learning experience in following the programme.

2.3.1 Initial Assessment in FET Levels 4, 5, 6

Initial assessment is not so much a single event, but rather a process which is carried out over a period of time, in three distinct, but related, stages.

The first stage, the 'alerting' purpose, identifies whether the learner has a literacy/numeracy need, and whether any further investigation is required to support their prospective learning goals. This assessment may take place before the learner is formally enroled in the programme, and is sometimes carried out in relation to entrance criteria which prospective learners must meet. However, in many cases this initial alerting process is carried out after the learner has been admitted to the course, just before or at the start of their course. If a literacy or numeracy need is identified, more information is gathered to determine the best learning environment for the learner's general level. This is followed by a more in-depth process which diagnoses the exact nature of the learner's strengths and learning needs.

The information gathered at the initial assessment stage could therefore be used either to exclude prospective learners who are likely to have difficulty with the course, or to put in place supports that will help them to manage the demands of their programme. Given the inclusive ethos of FET in Ireland, the primary purpose of initial assessment in this context is the latter: to identify students' learning needs, in order to facilitate their participation.

That said, there may be cases where a student's learning goals exceed their current level of

31 Scottish Executive (2014) "An Adult Literacy and Numeracy Curriculum Framework for Scotland," Edinburgh: Learning Connections Scotland p.22.

competence. If the situation cannot be resolved by the provision of tailored supports, alternative measures, including offering a different programme more appropriate to their level, are sometimes taken. **When this happens, robust initial assessment processes are needed to provide objective evidence in support of professional judgements.**

2.3.2 Ongoing Assessment: Purposes

Ongoing assessment supports teaching and learning on a day-to-day basis by monitoring the learner's progress in fine detail, a purpose usually referred to as 'formative assessment.' According to QQI,[32]

> "Formative assessment informs a learner how to improve their learning and is generally carried out in the early stages of, or during, a programme. Formative assessment provides feedback on a learner's work, and is not necessarily used for certification purposes. The emphasis in formative assessment is on encouraging more understanding by learners of their respective strengths, weaknesses and gaps in knowledge."

This is carried out as a continuous part of the teaching and learning process, as a source of information and communication between teacher and learner. A significant feature of formative assessment of literacy and numeracy in FET programmes at Levels 4, 5 and 6, is that this mostly takes place in the context of the vocational programme or workplace learning.

This presents both an opportunity, and a challenge. On the positive side, the vocational content offers a meaningful, goal-directed situation within which many dimensions of competence can be observed in situ. At the same time, systemic demands, such as the need for advance planning, clarification of roles and responsibilities and staff support, must be met to ensure that effective literacy and numeracy assessment does occur on an ongoing basis.

It is useful to identify the features of two distinct, though complementary, approaches to ongoing assessment:

- An informal, continuous feedback loop between learner and tutor.
- A systematic process carried out at key points for review purposes.

Informal Formative Assessment is a regular part of the everyday social interaction between tutor and learner, when normal learning activities present frequent opportunities to observe and gather evidence of learners' learning. These day-to-day interactions can indicate:

- How far a learner understands the knowledge and concepts involved in a task.
- Their command of the practical demands of a task.
- The social elements of the work.
- Aspects of the wider dimension of learning such as independence and fluency.
- General attitude to their work.

Information gathered during this informal formative assessment process is usually acted on immediately, when the tutor engages with the learner and makes helpful adjustments to the teaching approach, in resource materials, or in confirming, correcting or refining the learner's understanding or performance.

Formal Formative Assessment shares many of the same features as informal formative assessment, but involves more explicit, systematic feedback. In addition, the outcomes are periodically recorded. An example of an approach to formative assessment which includes structured elements is found in the Assessment for Learning movement, which tailors assessment to have a positive impact on teaching and learning.

Assessment for Learning (AfL)[33] is based on the principle that conscious, systematic use of formative assessment can improve the outcomes of learning, as well as enhance learners' motivation and self-esteem. Assessment for Learning may be carried out:

- On a day-to-day basis, giving specific and finely-tuned feedback to learners.
- Periodically, as part of a progress review.
- Transitionally, when the learner reaches a bridge to another learning experience.

Assessment for Learning, as well as putting learning at the centre of the assessment process, involves learners in their own assessments and:

32 QQI (2013) op. cit., p. 54.
33 More information on Assessment for Learning, available at https://www.nuffieldfoundation.org/project/the-assessment-reform-group/

- Sets clear goals and criteria for success.
- Tracks progress in relation to goals and criteria.
- Gives immediate feedback to improve learners' progress.
- Uses feedback to strengthen the teaching strategy.

A summary of the key features of Assessment for Learning is given in Appendix Three.

Ongoing assessment, therefore, often blurs the boundaries between teaching, learning and assessment to the extent that assessment is carried out as an integral part of the process, rather than as necessarily being a separate event.

That said, it is important to bear in mind that the day-to-day feedback and periodic formal assignments in FET at Levels 4, 5 and 6 are designed to probe the vocational content of the programme. In order to monitor how the learner is managing literacy and numeracy demands, clarity is needed on what exactly those demands are and what are the dimensions of competence important to that learner at that time.

Ongoing assessment, both formal and informal, can be a powerful enhancement to teaching and learning. However, as a recent SOLAS-commissioned study on integrating literacy observed, it is clear that expert support and a high level of literacy and numeracy awareness on the part of vocational tutors is essential for this approach to work,[34] and that significant advance planning and analysis are needed, along with appropriate support tools, to ensure that this is happening. Data from the international review and from the consultation process indicate what those requirements could be.

2.4 Questions Arising

The analysis of the concepts and purposes underpinning literacy and numeracy assessment in FET at Levels 4, 5 and 6 gives rise to the following questions which are explored in later sections of this study:

1. What is the optimum range and scope of definitions of literacy and numeracy, in the context of Levels 4, 5 and 6 FET programmes? It will be necessary to decide on the boundaries between basic literacy and numeracy, and more advanced language/communication and mathematical skills; or indeed, decide whether the distinction is useful or relevant in this setting.

2. Which dimensions of 'competence' are most relevant for literacy and numeracy in Levels 4–6 FET? National and international concepts of competence comprise multi-faceted dimensions of application in different contexts, some of which may be most relevant to literacy and numeracy in an educational setting.

3. What are the acceptable outcomes of initial assessment? The spirit of FET is based on an inclusive ethos which seeks to support learners who may need help with learning skills, including literacy and numeracy. If, in some cases, the level of support needed is beyond the scope of what current FET structures can provide, protocols are needed to guide managers and practitioners in how best to support the prospective learner in engaging with the optimum learning environment for them.

4. Which elements of QQI procedures could be drawn on to support literacy and numeracy assessment? Although these Guidelines are devised with a different purpose from QQI procedures, it may nevertheless be possible to integrate some of the planning and monitoring processes outlined in the Guidelines with processes already operating to meet QQI assessment and quality assurance requirements.

34 ICF (2018) "Integrating Literacy and Numeracy: Final Report," Dublin: SOLAS/An tSeirbhis Oideachais Leanúnaigh agus Scileanna/Further Education and Training Authority, p. 27. https://www.solas.ie/f/70398/x/2176ab65bb/integrated-literacy-and-numeracy-final-report.pdf

Section Three:
International Literature Review

3.1 Scope of Literature Review

This section analyses the key features of literacy and numeracy assessment currently practised in the further education and training systems in Australia, Canada, the USA, New Zealand and the UK.[35] Components addressed here include:

- **The broad FET context** within which the literacy and numeracy assessment and related supports operate, including providers and programmes.
- **The range of competences assessed**, and analysis of how these are defined and conceptualised.
- **Methods of assessment** and the tools and materials used to support these.
- **System support tools**, such as national frameworks of levels and other system-level resources.

3.2 Systems of Further Education and Training

Education and training sectors in other countries which are broadly equivalent to the FET system in Ireland, are known by a variety of names. In Australia, this is the Technical and Further Education (TAFE) sector; New Zealand has the TVET (Technical and Vocational Education) system and in the US, provision of similar educational experiences is known as Vocational Education and Training (VET), or Technical and Vocational Education and Training (TVET), or Career and Technical Education (CTE). The UK system devolves different elements of policy and implementation to the four UK countries and there are substantial variations between those individual TVET systems.

3.2.1 Providers

- **Australia:** Some vocational education and training opportunities, such as Apprenticeships, are offered in the final year of secondary school, whereas other opportunities can be accessed through vocational training organisations and also, in the universities. In some cases, literacy and numeracy support is explicitly tied to organisations' quality standards.
- TVET in **New Zealand** is offered in a variety of institutions, including schools, and also, through Institutes of Technology and Polytechnics (ITPs). Industry Training Organisations (ITOs) develop national standards and qualifications in their own sectors, support employers and trainees, provide Training Advisors, handle assessment and provide resources to meet employer and trainee needs. They also support a network of about 550 Private Training Establishments (PTEs) and some universities. Also worth mentioning are the Trades Academies, which provide a broad range of secondary-tertiary programmes designed to encourage senior secondary learners to remain in education.
- **Canada:** Vocational education is delivered in colleges, community colleges, institutes of technology or science and, in French-speaking Québec, Collèges d'Enseignement Général et Professionnel. There are also institutions dedicated to specific industries, such as applied arts or applied technology, in addition to private colleges.
- **VET and CVET in the US** are offered during the final years of high-school, and also in community colleges, technical schools, trade schools and in some adult education centres. The VET system in the US is

35 Including selected details of the four nations of England, Scotland, Northern Ireland and Wales, whose education and training systems differ.

especially diverse and fragmented because curriculums, assessment procedures and programmes are provided and regulated on a State-wide basis. Given the diversity of VET provision, assessment procedures also differ widely, as different states approve a variety of assessment tools for use in different contexts. There are therefore many frameworks and assessment tools associated with different programmes.

- **UK:** TVET is delivered in colleges of Further Education and sometimes through private training providers; and also, in the context of employment, through the Apprenticeship systems in all four nations of the UK.

FET provision in these countries is therefore delivered in a wide range of settings, which include both public and private providers.

3.2.2 Programmes

FET programmes in these countries share several common features. The development process is typically employer-led, in that programmes are practically-orientated and usually developed in partnership with national representatives of business and industry. Programmes offered include education and training opportunities at a wide range of levels and in a great variety of disciplines. Apprenticeship programmes are, naturally, part of all these systems, though this strand of training is complemented by programmes provided in other settings, including colleges and universities, some of which are dedicated to specific sectors.

A Variety of Levels

- Canada: Programmes offered range from those which require one to three years' study and lead to qualifications at Diploma or Certificate level, offering entry to jobs in business, ICT, health, social services, the trades and others.
- UK: Higher level vocational qualifications include Higher National Certificates (HNC) and Diplomas (HND) which, as well as providing entry to a wide range of occupations, can also offer a route into university degree programmes.
- Australia: FET programmes include apprenticeships and vocational programmes which lead to Certificate qualifications. These take six months to a year of full-time study. Diplomas are achieved in one or two years.
- USA: VET programmes range from a few months to about two years in duration, though some are more extensive and lead to Certificates, Diplomas and the Associate Degree (a primary degree often provided in technical schools and is equivalent to a Level 6 Diploma on the Irish NFQ). Credits achieved through VET programmes may be transferable to Bachelor's Programmes but also provide access to trades and professions in their own right.

A Wide Range of Disciplines

- In New Zealand, programmes offered through the network of Trades Academies include disciplines such as tourism, building and construction, hospitality, engineering, business, computing, and others. Courses are practically-orientated and involve work experience relevant to the sector.
- Canadian colleges, community colleges, institutes of technology or science and, in French-speaking Québec, Collèges d'Enseignement Général et Professionnel offer entry to jobs in business, ICT, health, social services, the trades and others.

Apprenticeships

In all countries, the FET/VET sector includes apprenticeships whose standards are set by the relevant industry and combine workplace learning with school or college study:

- New Zealand Apprenticeships lead to awards at Level 4 on the New Zealand Qualifications Framework.
- USA apprenticeships lead to the skilled trades and other occupations in sectors such as healthcare, interpreting, ICT, hospitality, art and design and many more.

Networks of Training Institutions

- Australia: Registered Training Organisations (RTOs) comprise a national network of public training providers.
- New Zealand: FET is delivered through a national network of 16 Institutes of Technology and Polytechnics (ITPs).
- Canada: community colleges, institutes of technology or science and, in French-speaking Québec, Collèges d'Enseignement Général et Professionnel.

Some Dedicated Institutions

- Canada: Some institutions are dedicated to specific industries, such as applied arts or

applied technology, in addition to private colleges.

- Australia: Some paraprofessional studies in areas such as Accounting and Engineering may be followed in specialist institutions. These programmes may be completed at university level, and usually take up to two years' full-time study.

Literacy and Numeracy Provision Enshrined in Quality Assurance Requirements

This is especially highlighted in New Zealand and Canada, where there is a statutory requirement to show that relevant support for literacy and numeracy is embedded in vocational programmes

- The New Zealand Tertiary Education Commission (TEC) determines the type of technical, logistic and practical supports which Industry Training Organisations (ITOs) must put in place for apprentices and employers. As such, ITOs must:

> "develop a training plan in collaboration with the apprentice and employer. The industry training organisation works with the apprentice and the employer to develop a training plan for the apprenticeship. The training plan ensures the apprentice **can complete the required qualification for the occupation.** The training plan is also based on a **comprehensive training needs analysis of the apprentice, recognition of prior learning and may include the development of other key skills."** [36] (author's emphasis)

There is therefore a clear obligation on both the employer and the ITO to clarify the training needs of the individual apprentice, in order to facilitate the process of drawing up a customised apprentice training plan. Furthermore, it is the responsibility of the ITO to support the implementation of this plan, including the provision of specific resources and strategies tailored to the training needs of the individual apprentice.

> "The industry training organisation supports the implementation of the training plan through the provision of resources, **arrangements for on-the-job assessments** and facilitating off-the-job training. The industry training organisation **monitors and reports on the apprentice's progress against the training plan** on a regular basis to both the apprentice and employer. Where possible the industry training organisation provides assistance to the apprentice and the employer to **overcome any barriers to training**."

This includes the provision of resources to support assessment of literacy and numeracy.

- In Australia, Registered Training Organisations (RTOs) are subject to quality requirements composed of eight quality Standards, which are enshrined in legislation. One in particular, which refers to "Learner Support,"[37] is of special interest:

> "The RTO **determines the support needs of individual learners** and **provides access to the educational and support services** necessary for the individual learner to meet the requirements of the training product as specified in training packages or VET accredited programmes." (author's emphasis)

In practice, therefore, the access and equity obligations of Registered Training Organisations extend to ensuring accessibility, including literacy and numeracy content as defined in VET-accredited programmes or in training packages.

3.3 Support Tools and Materials

The assessment methods used to probe FET learners' literacy and numeracy in these countries are aligned to a variety of support tools, which in many cases, yield insights into the range of knowledge and skills which are assessed in these contexts. This overview of support tools and materials in current use, therefore, provides essential background for the description of assessment methods which follows.

3.3.1 Frameworks of Levels

The national frameworks of skills levels that support the FET systems in these countries, though very similar conceptually and in their purpose and uses, are known by a variety of names: Core Skills in Scotland, Australia and Canada, Functional Skills in England, Essential Skills in Wales and Northern Ireland, Learning Progressions in New Zealand and Employability Skills in the USA. The content

36 Tertiary Education Commission (2015) "Code of Good Practice for New Zealand Apprenticeships" Wellington: TEC, p. 3. https://www.competenz.org.nz/assets/Uploads/The-code-of-good-practice-for-New-Zealand-apprenticeships.pdf

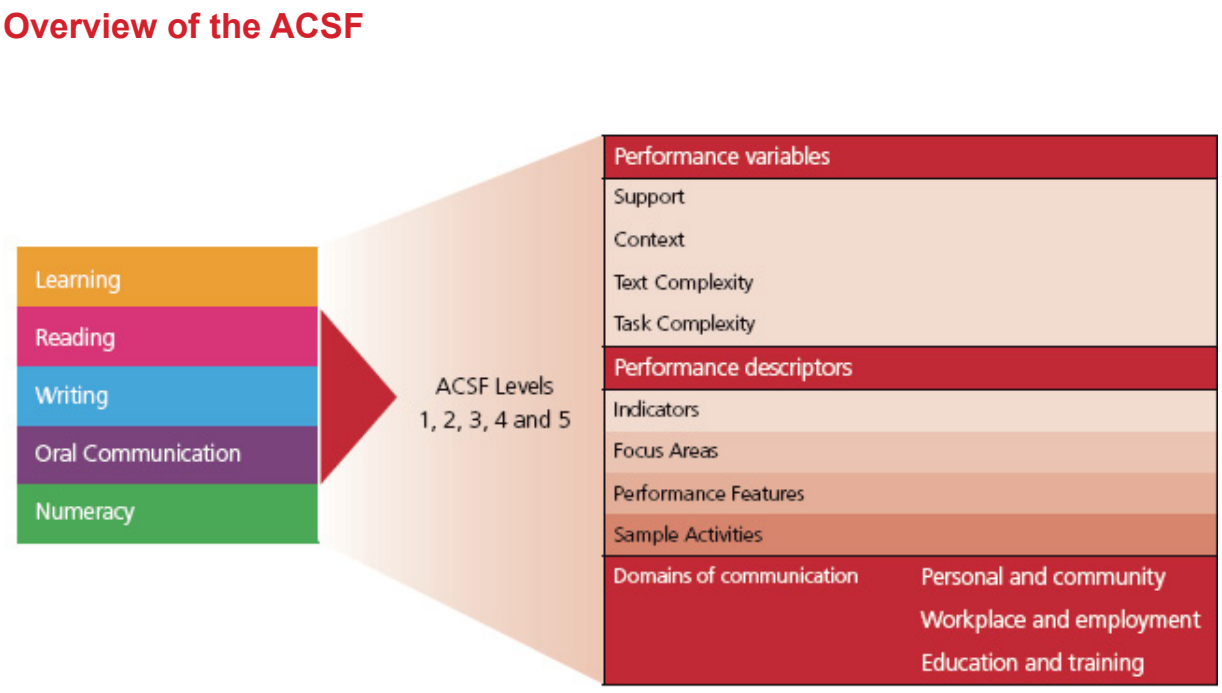
37 Standards for Registered Training Organisations (RTOs) 2015 made under subsection 185(1) and subsection 186(1) of the *National Vocational Education and Training Regulator Act 2011* (the Act) Federal Register of Legislation. Standard 1.7 https://www.legislation.gov.au/Details/F2017C00663

summary provided in the Appendices shows that although these frameworks include slightly different content and organisational structures, literacy and numeracy is a significant component of all of them.

These frameworks of levels sit alongside, but are distinct from, the national frameworks of qualifications and are quite separate in content, focus, level of detail and purpose. **Whereas qualifications frameworks are designed to support national education and training awards, these parallel frameworks support programme development, teaching, learning and assessment of certain skills found in all or most settings, often called 'transversal' skills.** These frameworks of levels are therefore a very significant resource in the assessment of literacy and numeracy within the FET systems in each of these countries.

- The Australian Core Skills Framework[38] (ACSF) describes five core skills of learning reading, writing, oral communication and numeracy, at five levels of proficiency. The components of each of the five core skills in the ACSF are outlined in Figure 4.

Figure 4: Australian Core Skills Framework[39]



- Canada Essential Skills Framework[40] defines "the skills needed for work, learning and life" which are used in nearly every job, at different levels of complexity. The nine Essential Skills are:

• Reading	• Oral Communication
• Document Use	• Working with Others
• Numeracy (Math)	• Thinking
• Writing	• Digital Technology
	• Continuous Learning

Clearly, the first four of these Essential Skills are directly related to literacy and numeracy.

38 Australian Core Skills Framework, https://www.employment.gov.au/australian-core-skills-framework
39 Department of Industry, Innovation, Science, Research and Tertiary Education (2012) "Australian Core Skills Handbook." Canberra: Commonwealth of Australia, p. 10. https://docs.employment.gov.au/documents/australian-core-skills-framework
40 Canada Essential Skills Framework. https://www.canada.ca/en/employment-social-development/programs/essential-skills/definitions.html

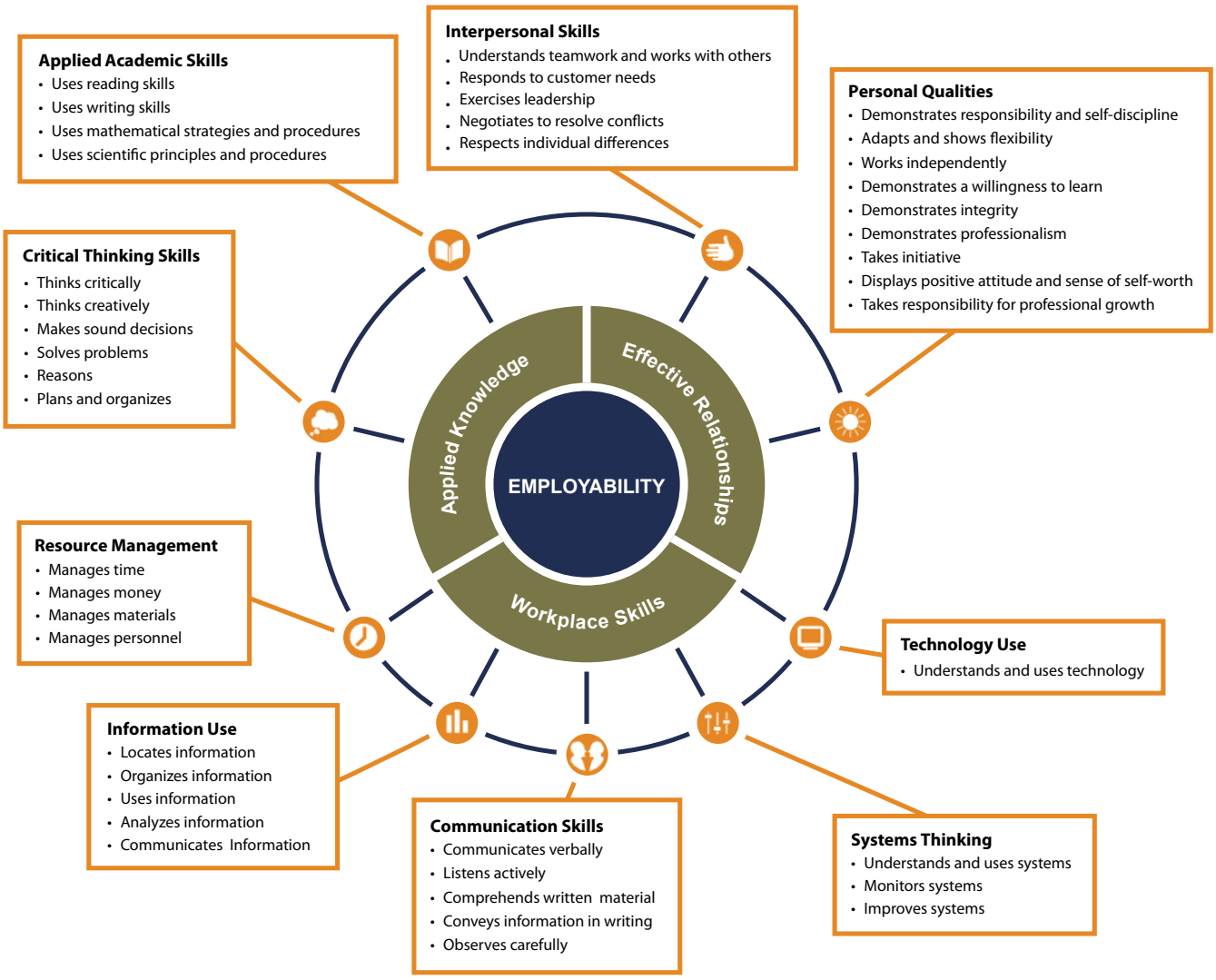
Each Essential Skill is expressed at different levels of complexity, some on a Level Scale of 1–4, others at 1–5, where 1 corresponds to a basic task, and 4 or 5 is advanced. Differentiation of levels is determined by the variety in skill requirements of particular tasks, and also, by the context. This framework is promoted by Government, by education and training institutions and by all agencies with responsibility for programme development and occupational standards.

- US Employability Skills Framework[41] defines general skills that are widely used in work, at all levels, in all sectors and also, in daily life. These are "cross-cutting abilities" and the framework is widely used in Continuing and Technical Education Programmes as a structure for programme development, teaching and learning, and assessment.

Figure 5 shows that the Framework is composed of nine Employability Skills grouped under three sections: Applied Knowledge, Effective Relationships and Workplace Skills, of which the first, Applied Academic Skills (Knowledge), is relevant to literacy and numeracy. Applied Academic Skills in this section include Reading, Writing, Maths strategies/ procedures and Scientific principles/procedures.

Here, 'Reading' is defined as: "interpreting written instructions/project directions and constructing responses, using print and online materials as resources, completing worksheets, and seeking clarification about what they have read."[42]

Figure 5: US Employability Skills Framework



41 US Employability Framework. https://cte.ed.gov/initiatives/employability-skills-framework
42 US Department of Education Office of Career, Technical, and Adult Education. Employability Skills checklist. https://cte.ed.gov/initiatives/employability-skills-framework

Maths strategies/procedures require learners to use "computational skills appropriately and make logical choices when analysing and differentiating among available procedures." This includes creating/interpreting tables and graphs and organizing/displaying data.

- The US National Reporting System for Adult Education is the national system which is used for accountability purposes by all adult education programmes funded under the Workforce Innovation and Opportunity Act (WIOA). The educational functioning level (EFL) descriptors for Literacy/English Language, define Literacy and Mathematics at six Educational Functioning Levels.[43]

The NRS levels of most relevance to VET programmes are Low and High Adult Secondary in: Reading, Writing, Speaking and Listening, Language;[44] and, in relation to numeracy, Mathematical Practices, Number Sense and Operations, Algebraic Thinking, Geometry and Measurement, Data Analysis (Statistics and Probability).

In the UK each of the four nations has its own framework of Core Skills, Functional Skills or Essential Skills which, though used for similar purposes of development, delivery and assessment, differ slightly in content and structure:

- **Functional Skills, England** is a five-level Framework consisting of level definitions for English, ICT and Maths at Entry Level 1, Entry Level 2, Entry Level 3, Level 1 and Level 2. Programmes are assessed by awarding bodies according to standards set by Ofqual.
- **Essential Skills, Northern Ireland** comprises descriptors of Reading, Writing and Numeracy at the same five levels as the Functional Skills.[45] Essential Skills programmes are delivered by further education colleges in Northern Ireland.
- **Essential Skills, Wales** consists of the four skills of Communication English, Communication Welsh, Application of Number and Digital Literacy, all four at the same five levels as the Functional Skills; plus an additional Essential Skill, Essential Employability Skills which is available at four levels: from Entry Level 3 to Level 3. This set of skills comprises three sub-sections: Critical Thinking and Problem Solving; Creativity and Innovation; Planning and Organisation.
- **Core Skills, Scotland:** This framework describes the five core skills of Numeracy, Communication, ICT, Working with Others and Problem Solving, which are also defined at five levels.

The **New Zealand Learning Progressions** describe steps of progress along a continuum and is designed to be used as a resource in planning and assessment in literacy, language and numeracy. The Framework is constructed around four interconnected strands: Listen with Understanding, Speak to Communicate, Read with Understanding and Write to Communicate.[46]

Figure 6 shows the Read with Understanding Progression. This is composed of a number of strands and sub-strands, in this case shown across the table, horizontally: decoding, vocabulary, language, comprehension and reading critically. The vertical axis, or placement denotes ascending levels of difficulty.

43 US Department of Education Division of Adult Education and Literacy (Dec 2017) "Technical Assistance Guide for Performance Accountability Under the Workforce Innovation and Opportunity Act -National Reporting System for Adult Education, Appendix B-2. https://www.nrsweb.org/policy-data/nrs-ta-guide

44 Ibid., Appendix B-10-112.

45 Northern Ireland Essential Skills. https://www.nidirect.gov.uk/articles/essential-skills

46 Tertiary Education Commission Te Amurangi Matuaranga Matua (2008)"Learning Progressions for Adult Literacy," Wellington: Tertiary Education Commission. https://ako.ac.nz/knowledge-centre/learning-progressions-for-adult-literacy/learning-progressions-for-adult-literacy/

Figure 6: New Zealand Learning Progressions, Read with Understanding[47]

DECODING PROGRESSION	VOCABULARY PROGRESSION
Most adults will be able to	**Most adults will be able to**
• have a bank of sight words (words they recognise automatically) • use a few reliable strategies for decoding regularly and irregularly spelled everyday words in short, simple texts.	• have a reading vocabulary of everyday words, signs and symbols.
• have a large bank of sight words • use several simple, reliable strategies for decoding everyday words in short texts with some fluency and accuracy • have some awareness of the accuracy of their decoding attempts.	• have a reading vocabulary of everyday words that includes some compound words • have a knowledge of word families that enables them to increase their reading vocabulary • be aware that many words have more than one meaning and notice when a word is used with an unfamiliar meaning • have some understanding of the purposes of acronyms and abbreviations • know some everyday signs and symbols.
• use more complex, reliable strategies for decoding most everyday words with fluency and accuracy.	• have a reading vocabulary of everyday words and some less common words, acronyms and abbreviations • understand that some words and phrases can have figurative as well as literal meanings • have strategies for finding the meanings of unknown words, including a knowledge of how to find words in a dictionary and interpret definitions.
• fluently decode more specialised words, including words of many syllables • monitor their reading for accuracy and sense.	• have a reading vocabulary that includes some general academic words and some specialised words • understand how word families can be generated (based on roots, prefixes and suffixes) and use this understanding to extend their vocabulary.
• fluently decode more complex and/or irregular words, using strategies such as inferring the unknown from the known and analysing words (for example, by identifying morpheme patterns involving less common prefixes and suffixes) • decode most words automatically.	
• decode unfamiliar words rapidly and automatically.	• have a large reading vocabulary that includes general academic words and specialised words and terms.

47 Tertiary Education Commission Te Amurangi Matuaranga Matua (2008) op.cit., p.17.
https://ako.ac.nz/knowledge-centre/learning-progressions-for-adult-literacy/learning-progressions-for-adult-literacy/

LANGUAGE AND TEXT FEATURES PROGRESSION	COMPREHENSION PROGRESSION	READING CRITICALLY PROGRESSION
Most adults will be able to	**Most adults will be able to**	**Most adults will be able to**
• understand that groups of words work together in meaningful units.	• have some awareness of their purpose for reading • expect that texts will make sense • use strategies to read short, simple texts with support.	• have some awareness of the different purposes of visual and written texts • be aware that all readers and all writers have a perspective (point of view).
• understand short, simple texts that are made up of simple sentences and compound sentences • understand how capital letters and full stops are used to show where sentences begin and end • recognise some common text types • recognise some common visual text forms.	• use comprehension strategies to understand short, simple texts • use strategies to locate items of information in short, simple texts • have some awareness of what to do and how to do it when comprehension breaks down.	• recognise the purposes, levels of meaning and possible uses of different forms and types of written and visual texts • use strategies to compare and evaluate information from different sources.
• understand a variety of sentence structures and paragraph structures within more complex texts • be aware of how clauses can be combined and marked with commas, semicolons or colons within complex sentences • understand how simple clauses can be elaborated by adding words and phrases • recognise the features and structures of a wider range of text types • be aware of a range of visual text forms • that can be combined with or included in written texts.	• use comprehension strategies to assist in understanding information or ideas in longer or more complex texts • use strategies to locate important information in texts • have an increasing awareness of what to do and how to do it when comprehension breaks down.	• identify writers' purposes and ways in which writers use ideas and language to suit their purposes • identify a variety of sources for specific information and use strategies to compare and evaluate information within or across different texts.
	• use strategies to read an increasingly varied range of more complex texts for specific purposes • use strategies to locate, organise and summarise important information in texts • use strategies to gather and synthesise information from across a small range of texts • have increasing control over how they use comprehension strategies.	
• understand a variety of sentence structures and paragraph structures across a wide range of complex texts • understand that the information in well constructed paragraphs includes both general and particular information, for example, a paragraph may move from a claim to reasons justifying the claim • be aware of rhetorical patterns that are common to many text types, such as descriptions of cause and effect • recognise the features and structures of a wide range of text types, including some specialised text types such as instruction manuals.		• use strategies to analyse ideas and information and to reflect critically on surface meanings and underlying meanings • evaluate the validity (truth) of information • in relation to the writer's purpose and/or the reader's purpose.
	• select and integrate a wide range of comprehension strategies • have an awareness of how to use strategies and evaluate their effectiveness • use strategies to summarise and synthesise information across a wider range of more complex texts and for more complex purposes • integrate prior knowledge with new information within and across several different texts to deepen their understanding.	• use strategies confidently to reflect critically on meaning • evaluate a writer's point of view, attitude, bias or agenda • have an understanding of the language features used by writers for specific purposes.

3.3.2 Other Support Structures

In two of the systems examined, national structures include systems that provide special support to FET teaching and assessment. These are worth discussing in relation to literacy and numeracy support.

Australia: Training Packages

These nationally-validated statements of standards set out in detail the industry requirements for specific occupations or clusters of occupations, and are composed of three main elements: statements of workplace competences, known as units of competency; the range of qualifications to which different combinations of units of competency can lead; and guidelines on the assessment procedures expected by industry for different elements of the units of competency.

Training packages, which are developed by Service Skills Organisations, are available at a wide range of levels and are published on a national database of education and training programmes,[48] for use by training providers and programme developers, as well as learners. During the development process,

> "Training Package developers must ensure that foundation skills [i.e. literacy and numeracy] are explicit and recognisable within the Training Package. These requirements are expressed within the Foundation Skills field of the unit of competency template. Foundation skills in Training Packages must reflect and not exceed the foundation skills required in the workplace."[49]

The literacy and numeracy demands of all occupations and all programmes leading to qualifications for those occupations, are therefore foregrounded at the development stage of creating occupational profiles and setting standards.

Canada Occupational Standards: National Occupational Analysis (NOA)

Occupational Standards set out in detail the skills requirements and the tasks involved in individual workplace roles. Significantly, they include an analysis of how each of the nine Essential Skills is used in the context of that occupation. Appendix Four shows an example of the National Occupational Analysis (NOA) of the Essential Skills needed in the occupation of Hairstylist.[50] All other NOAs similarly identify the Essential Skills required in each of the specific occupational contexts. The nine Essential Skills are always represented, but the specific tasks identified under each of those headings is tailored to a particular occupation and context.

Canada Essential Skills Profiles

Essential Skills Profiles are accessed through a searchable database which contains a list of sample tasks that illustrate how each of the nine Essential Skills is generally performed by most workers in the target occupation. Levels of complexity ranked between 1 (basic) and 5 (advanced) are estimated for each task. Appendix Five gives an example of how the Essential Skill of Numeracy is typically used in the occupation of Aerospace Engineer,[51] and the range of numeracy-related skills, knowledge and tasks a person in that occupation will routinely perform.

3.4 What is Assessed?

The richest source of data on which aspects of literacy and numeracy are assessed in the context of these international FET systems, is provided by the national frameworks of core, key, essential and functional skills described in the last section. These are designed specifically to support teaching, learning – and assessment. As the tools and methods[52] used in these contexts are aligned with these frameworks of levels, their content can be considered a reliable indicator of what is assessed.

A brief analysis of the framework context, summarised in Appendix Six, shows that assessment not only addresses technical knowledge and skills but also, probes the broader dimensions of application and context.

All frameworks contain elements of the following technical skills:

Reading: Comprehension, understanding; locate information; make inferences; reading strategies (word attack, decoding, skimming, scanning); respond to grammatical cues; interpret information; critically evaluate.

Writing: Convey information; write continuous text; spelling, syntax; structure writing; use register appropriate to audience and purpose.

48 Training Packages database. https://training.gov.au/Search/
49 Australian Government: Department of Employment, Skills, Small and Family Business. (2015) "Training Package Products Policy," Canberra: Commonwealth of Australia.
50 Employment and Social Development Canada (2016) "National Occupational Analysis, Hairstylist" Montreal: Labour Market and Integration Directorate, Trade and Apprenticeship Division. http://www.red-seal.ca/trades/hairstylists/2016n.4.1_.4v.2rv.3.2w-eng.html
51 Canadian Essential Skills Fact Sheets. https://www.jobbank.gc.ca/essentialskillsresults/73
52 These tools and methods also form part of many of those frameworks.

Numeracy: Problem-solving; select/identify mathematical information embedded in tasks and activities; make sense of number to solve problems; analyse and interpret data; measure and interpret shape and space; number sense and operations.

Some also include multi-dimensional aspects of literacy and numeracy including:

Support: The amount of help required. Also, the degree of structure that provides support.

Context: The training context (workplace, college); the vocational context (Canada occupational skills); the domain (personal/community/workplace/education and training).[53]

Conclusions: This summary indicates:

- That literacy and numeracy are assessed at a wide range of levels, ranging from basic (information retrieval, respond to punctuation, spelling and basic operations) to complex (critical reading, write extended prose and problem-solving).
- A fairly consistent range of technical knowledge and skills is addressed, notwithstanding some variety, which could also be attributed to the level of detail expressed in national documentation.
- In some cases, a wider range of components which include context and independence, is assessed.

3.5 Assessment Methods and Tools

A variety of assessment methods and tools emerged from the international review of literacy and numeracy assessment. Methods are intertwined with the tools and materials used to support them, and for this reason, the related topics of assessment strategies and tools/resources are explored in this section together.

Strategies may be categorised into two main approaches: those that assess generic reading, writing and numeracy content, closely related to the technical knowledge and skills listed in the last section, the 'generic' approach; and 'contextualised' strategies which probe learners' competence in using these and related skills, as demonstrated in an appropriate situation.

Generic methods may include tests or tasks, which in turn may be completed on paper or in computerised versions. Assessments of this kind often summarise learners' results in terms of a mark, a grade or, in some cases, a detailed profile of strengths and weaknesses.

Contextualised approaches integrate assessment of literacy and numeracy into other activities, most often the vocational context of the programme. Tasks may focus on a technical aspect of the programme that requires literacy or numeracy knowledge and skills, and provide an opportunity to observe the learner's performance in the embedded reading, writing or numeracy.

3.5.1 Generic Assessments

This refers to assessment of generic literacy and numeracy skills, rather than those contextualised to specific vocational areas. Examples are taken from each of the countries represented in this study.

New Zealand Literacy and Numeracy for Adults Assessment Tool[54]

This is composed of several interlinked tools provided in different formats, designed to support different target groups including adult learners, young adult learners and Maori learners. Figure 7 shows that an Online Adaptive Tool is available in Numeracy, Reading and Vocabulary, as well as an additional category called Starting Points. Additionally, it shows that a non-adaptive paper-based tool is available in most of the same categories, and that a Snapshot tool, which is a shortened version of the Online Adaptive Tool, can assess some of the areas.

Figure 7: New Zealand Generic Assessment Tool

Availability of Assessment Area by Assessment Type

	Online Adaptive	Snapshot	Non-adaptive (paper-based)
Numeracy	Yes	Yes	Yes
Reading	Yes	Yes	Yes
Writing			Yes
Vocabulary	Yes		
Step 2 Threshold Assessment for Reading		Yes	Yes
Starting Points	Yes		

53 Australian Government Department of Employment, Skills, Small and Family Business (2015)"Core Skills Framework," Canberra: Commonwealth of Australia https://www.education.gov.au/australian-core-skills-framework
54 Tertiary Education Commission Adult Literacy and Numeracy Assessment Tool. https://assess.literacyandnumeracyforadults.com/Login.aspx

Online Adaptive Tool

This is an adaptive assessment test that takes up to 80 minutes to complete. Items are differentiated according to the user's responses, with more complex questions presented following a series of correct answers.

Snapshot Assessments

The Snapshot assessment is a shorter version of the adaptive assessment, and takes about 40 minutes to complete. Tutors and trainers can target a specific step in the Learning Progressions and judge where the learner is in relation to it.

Non-Adaptive Paper-Based Tool

This covers similar ground to the online adaptive tool and is used only in cases where the Online Adaptive Tool is impractical.

Starting Points

The Starting Points options are designed to be done on tablets in a supported one-on-one situation, although they may also be completed using a PC or Laptop. This test assesses foundation level reading skills and is designed for both ESOL and non-ESOL learners.[55]

Australian Core Skills Framework Practice Assessment Tasks (generic)

Aligned to the Australian Core Skills Framework, these Tasks cover the five Core Skills of Learning, Reading, Writing, Oral Communication and Numeracy, from pre-Level 1 up to Level 4 and are validated against the ACSF by assessors and industry experts.[56] About half of the Assessment Tasks are generic, rather than being tied to a particular occupation and include activities such as "fill[ing] out an information form", "making numbers work", "read[ing] a calendar" and "read[ing] a map".

What makes this a quick and easy approach to informal literacy and numeracy assessment is the format, which comes in the form of booklets that instruct the assessor on how to present the task, and maps it to the appropriate Levels 1–3 of the ACSF. The booklets come with a caveat, indicating that only Language Literacy and Numeracy (LLN) practitioners should use these Tasks as a formal assessment method. However, they may be used by less experienced staff as a resource for teaching, rather than assessment.

Core Skills Profile for Adults[57]

The Australian Core Skills Profile for Adults comprises a full suite of online assessments, aligned with the Australian Core Skills Framework. This is designed to assess the skills of adult learners in the full range of TAFE levels and contexts. Assessments cover the three core skills of Reading, Numeracy and Writing at the five ACSF levels described above. A fourth component of the Core Skills Profile for Adults is a shortened version of the tests and is known as Snapshot Reading and Numeracy Indicator, (SRNI). This is a quick screening tool and can only be taken in conjunction with the full, integrated suite of assessments. The purpose of the Core Skills Profile for Adults is to assess the learner's performance against the full range of components that make up the ACSF. The specific elements of the CSPA assessments, the Online Adaptive Screening Tool and the Snapshot Reading and Numeracy Indicator, are described below.

Online Adaptive Screening Tools

This set of screening tests comprises items at ACSF Levels 2–4, designed to determine the individual's current Core Skill level in relation to all of the Core Skills. Tests are adaptive in that after answering 10 items, individuals are automatically directed to a differentiated set of items at an appropriate level (low, intermediate or advanced) for an additional 15 questions, the level determined by their answers on the first ten items.

Snapshot Reading and Numeracy Indicator (SRNI)

The Snapshot Reading and Numeracy Indicator (SRNI) is an alerting tool designed to identify VET learners who are most at risk in relation to their literacy and numeracy skills. This test is also carried out through the Core Skills Profile for Adults Online Assessment Platform, and tests both reading and numeracy against Exit Level 2 of the Australian Core Skills Framework. Any learners identified as achieving below Exit Level 2 undertake a more comprehensive assessment of their Learning, Literacy and Numeracy skills, using the full suite of CSPA assessments. This information is used to determine the range of supports they will need in order to develop their literacy and numeracy skills. Some learners who achieve higher than Exit Level 2, but who enrol on programmes with higher literacy and numeracy demands, may be required to take a full assessment, using the CSPA suite of tools described above, to determine their capacity

55 New Zealand Literacy and Numeracy for Adults Assessment Tool. http://assessforadults.nzcer.org.nz/support/solutions/articles/4000125013-the-home-tab

56 Database of Australian Assessment Tasks http://www.precisionconsultancy.com.au/acs_framework

57 Pdf Information Pack for the Australian Core Skills Profile for Adults https://www.acer.org/au/cspa

to handle the demands of the programme. For this system to work, of course, it is necessary to have analysed in advance the literacy and numeracy requirements of each programme.

Canada Online Indicator

This is a set of informal online assessments[58] that probe the learner's ability to handle generic requirements in Numeracy, Reading and Document Use. They comprise a series of short quizzes that give a general overview of the person's skill strengths, and where they may need to improve. Tests, or "quizzes" are provided at three levels and there are two sets of each, to facilitate pre- and post- testing. Quizzes comprise a small number of questions, between 4 and 5, requiring reflection, reading and calculation. The process is learner-directed, in that the individual selects a quiz at their chosen Level, in their chosen Essential Skill, types in the answers, reviews, submits their answers and gets an immediate summary of results.

USA Standardised Tests Comprehensive Adult Literacy Assessment System (CASAS)[59]

CASAS is the most widely used system in the US for assessing adult basic reading, maths, listening, writing, and speaking skills. It is the only system of its kind which is approved and validated by the U.S. Department of Education and the U.S. Department of Labor.

The CASAS tests which are most relevant in the context of vocational education, are the suite of assessments known as the Employability Competency System. This is a set of employment-orientated pre- and post-progress tests which track the progress of learners following vocational programmes. It is a competency-based approach that can be delivered online or using CASAS test booklets and, most significantly, is valid for NRS reporting purposes.

The four levels of tests range from Beginning Literacy to Adult Secondary level on the NRS, using the National Reporting System (NRS) benchmarks. When this framework is used to track Measurable Skills Gain (MSG), evidence of the individual's Educational Functioning Level (EFL) gain – that is, measurable improvements – can be generated in different ways, including comparison of the results from approved pre- and post- tests.

UK Wales The Screener, Assessment of Essential Skills[60]

This quick screening tool is in the public domain and allows individuals to check their own level of the Essential Skills by opening an account and completing a series of online tests. Users are required to register to gain access to the 'Screener,' which is a multiple-choice test consisting of 20 items, with questions voiced, as well as shown onscreen. Once completed, the test result is presented in the form of an indication of the best next step. This is followed by directions to resources and exercises to improve the skill.

3.5.2 Contextualised Assessments

These include informal quizzes, contextualised tests and tasks built around specific occupations.

Practice Aptitude Quizzes

Australia: Practice Aptitude Quizzes are contextualised tests, set out in the form of occupation-specific booklets, which give learners the opportunity to self-assess their abilities to handle the language, literacy and numeracy requirements of a specific job. Trainers may also use them, possibly as informal initial assessment tools, and these quizzes can be a resource for career guidance counsellors to help people identify their skills strengths and weaknesses.[61]

Although they are not formal assessment tools required for entry or recruitment, these quizzes are a useful preparatory resource as they are developed by representatives of industry and training providers. Items consist of reading, writing and numeracy tasks contextualised to a particular sector or occupation, and consist of around 30 plus questions which can be completed in under an hour. There are a total of 32 quizzes tailored to 17 sectors, and one generic quiz which probes more general tasks.

Assessment Tasks, Australia (contextualised)

Aligned to the Australian Core Skills Framework Assessment Tasks, developed by Precision Consultancy with funding from the Department of Industry,[62] these assessment tasks provide another contextualised resource. They are presented in the form of individualised booklets for every occupation. Tasks cover the five Core Skills of Learning, Reading, Writing, Oral Communication

58 Canada Online Indicator https://www.canada.ca/en/employment-social-development/programs/essential-skills/tools/online-indicator.html
59 USA CASAS https://www.casas.org/education-providers
60 UK Wales The Screener Assessment of Essential Skills. https://www.walesessentialskills.com/?q=adv_screener
61 Practical Aptitude Quizzes. https://www.aapathways.com.au/insiders-advisers/practice-aptitude-quizzes
62 Australian Core Skills Framework Assessment Tasks. http://www.precisionconsultancy.com.au/acs_framework

and Numeracy, from pre-Level 1 up to Level 4 and are validated against the Australian Core Skills Framework by assessors and industry experts.

Each Task includes: a summary of the ACSF skills embedded in the task and the context; instructions for the assessor; and a mapping of the various elements of the Task to the ACSF. This bank of 44 Assessment Tasks includes activities such as "Use Hand Signals" from the Aviation occupation; "Write an Accident Report" from Transport; "Use a Floor Plan" from Construction, and so on. Only Core Skills Levels 1–3 are addressed, so this resource is aimed at people who may have the greatest difficulty in managing the literacy and numeracy demands of their chosen occupation.

Canada Essential Skills Passport

This is a tool which allows the learner to track their own progress on the development of specific Essential Skills, in the context of their training.[63] With the support of a mentor or supervisor, the learner records the results of any assessments, inserts the date and returns to enable periodic review. This allows the individual to record both skill strengths, and to identify areas for further development.

Instructions on how to complete the Essential Skills Passport shows that as well as being a personalised resource for the individual, this is also tailored to the occupation for which they are studying. Entries are verified with the support of a supervisor or mentor.

Table 2: Essential Skills Passport (Canada)

- Personalise your Passport by listing tasks or competencies that are specific to your job under Job-specific statements.
- Repeat steps 2–3 using your personalized statements.
- Record any formal training or achievements related to the skill under Training, Certifications and/or Accomplishments.
- List any skills requiring improvement under Areas for Further Development.

This resource, like several of those described here, illustrates the connection between analysis of skills, content of the occupation and education programme, and assessment of the individual's progress.

UK Scotland Assessment Workplace Core Skills Tasks

The Scottish Core Skills Framework includes a strand that is tailored to the workplace and supported by a set of resources designed to assess and accredit Workplace Core Skills[64] in a working environment. Core Skills Units can be followed as individual qualifications, or are sometimes embedded in other qualifications including Scottish Vocational Qualifications (SVQs) and Apprenticeships. Significantly, all five core skills must be included in the Modern Apprenticeship (MA) and in order to be eligible for accreditation, core skills content must be mapped as they occur in all programmes.

The assessment of Workplace Core Skills is conducted through a task-based strategy, which assesses knowledge, understanding and occupational competence in the workplace. These Workplace Assessed Core Skills Units make it possible to assess learners in the course of their work, against the five levels described by the core skills framework. Evidence of the learner's achievement is mostly gathered in the workplace.

The Scottish Qualifications Authority provides a large bank of resources designed to support the creation of an assessment plan, identifying and aligning evidence with the Unit specifications. Some of these supports are presented in the format of booklets tailored to each Core Skill at each of the five levels. These clarify the steps involved and how the assessor and the learner should engage with the process and also, record the key components of information required for accreditation purposes.

Here below is one example, an extract from the Assessment Resource Pack for Level 3 Communication,[65] which is composed of three elements: Reading and Understanding, Writing, Speaking and Listening. Assessment is built around three tasks which the learner must carry out in the workplace and generate evidence that they have performed it to the specified standard.

63 Essential Skills Passport http://publications.gc.ca/site/eng/360723/publication.html
64 Scottish Qualifications Authority Workplace Core Skills https://accreditation.sqa.org.uk/accreditation/Qualifications/Workplace_Core_Skills/Workplace_Core_Skills
65 SQA (2014) Assessment Resource Pack, Level 3 Communication," Glasgow: SQA https://accreditation.sqa.org.uk/accreditation/Qualifications/Workplace_Core_Skills/Workplace_Core_Skills

Table 3: Extract 1 from Assessment Resource Pack, Level 3 Communication

Task 1: Reading and understanding Read, understand, and evaluate a document related to your work that presents and analyses factual content or presents a sustained point of view or central argument, for example a report, trade article, or equipment manual. The document should have some words that you are unfamiliar with and use some specialist terms.
Task 2: Writing Produce a well-structured document or a collection of related documents that are concerned with the presentation and analysis of information and/or with developing an opinion or argument.
Task 3: Speaking and listening Either make a substantial contribution to a discussion on a topic related to your work or give a presentation on a work-related topic to one or more people.

The Guidelines that accompany this report set out more detail of the specifications required and also, shown in Figure 8, examples of the range of acceptable evidence.

Figure 8: Extract from SQA Unit Specification, Level 3 Communication[66]

How will I show that I have achieved this Unit?

You will need evidence to show that you have achieved all three tasks in this Unit.

For Task 1 reading and understanding: you might have written evidence such as a short report, blog or wiki. Alternatively, your assessor may ask you questions, watch what you do, and make notes or a recording of what was said and/ or done.

For Task 2 writing: you may be able to use the document you have produced for Task 1 as evidence. Your document(s) is likely to total 80 words or more.

For Task 3 speaking and listening: your assessor will observe you and make notes or a recording of the activity which should last a minimum of two minutes, including time for questions. You should also keep a short note explaining the situation, for example:

- who was present
- what was being discussed
- what was the purpose of the discussion

You must show that you can do the whole of each individual task at one time. You are not allowed to gather evidence from different situations for different parts of the task.

The Assessment Resource Pack includes extensive guidance on the content specifications for each level and each Core Skill, always tailored to the workplace content. According to this highly contextualised, task-based approach:

> "The assessment process is likely to involve one or more of the following: observation; recording; oral questioning. When assessing by observation, you must keep a detailed checklist. Similarly, if you use oral questioning, you must keep a record of both the questions and the candidate responses. All evidence, whether produced by the candidate or a record made by yourself, must be retained, signed, and dated by you."[67]

All these processes are supported by additional resources that include sample tasks and sample forms and checklists for use in planning for assessment and to record outcomes and evidence.

66 SQA (2014) "Unit Specification, Level 3 Communication." Glasgow: SQA, p 6.
67 SQA (2014) "Assessment Resource Pack, Level 3 Communication," Glasgow: SQA, p.10.

3.5.3 Self-assessment.

Canada Self-Assessment Checklist

The checklist shown in Table 4 below[68] helps the individual learner to identify their Essential Skills strengths, and areas they need to improve. It consists of a set of about a dozen statements related to each of the Essential Skills that describe common trades-related tasks and invite the individual to rate themselves on a three-point scale in relation to the statement "I am confident in my ability to…" Answers are given as 'yes', 'somewhat' or 'no.'

Table 4: Essential Skills Self-Assessment Checklist (Canada)

Essential Skill	Sample statement
Reading	• Read and follow directions on products or labels. • Read and understand formal documents, such as service contracts and incident reports. • Read and interpret regulations to comply with standards.
Document Use	• Understand signs or symbols, such as safety signs. • Find information in a document. • Compare information from a variety of documents.
Numeracy (Math)	• Perform one-step calculations, such as addition, subtraction, multiplication or division. • Calculate the dimensions, area or volume of different shapes. • Perform calculations using geometry (e.g. calculate slopes or elevation).
Writing	• Record information, such as telephone messages or tasks to be completed. • Tailor writing for a specific audience, such as a foreperson or a supplier. • Write business plans or proposals.

The learner's self-assessment process is accompanied by a wide variety of supports aimed at helping the individual to improve their competence in Essential Skills. These include tip sheets, a trades maths workbook, which learners can use to practise the trade-related numeracy skills, and an Essential Skills workbook for the trades.

3.6 Conclusions from literature review

Purpose In these contexts, literacy and numeracy assessments are carried out for a range of purposes:

- Initial screening.
- More specific, contextualised diagnosis of learning needs.
- Clarification of specific support needed.
- In a small number of cases (the four UK systems) to award qualifications at the relevant levels.

Methods In all cases, multiple methods are used to serve the purposes referred to above.

- Generic texts, online or paper, perform an 'alerting' function.
- Standardised tests are used for initial and sometimes as follow-up post-test.
- Informal contextualised quizzes and tasks are designed for the learner's use to help them identify the literacy and numeracy they will need for a specific programme or occupation.
- More formal tasks contextualised to a programme or occupation are used by basic education experts.
- Observation of learner's performance on naturally-occurring tasks in the workplace is highlighted in some systems.

68 Self Assessment Checklist for the Canadian Essential Skills in the Trades. https://www.canada.ca/en/employment-social-development/programs/essential-skills/tools/self-assessment-trades.html

Section Four:
Consultation Process and Findings

This section provides an overview of literacy and numeracy assessment processes currently implemented in FET, and explores the priorities and insights expressed by participants working in a variety of contexts and roles. The findings reported here are based on data gathered through a series of focus group meetings conducted in 12 ETBs throughout the country between April and May 2019. A total of 143 practitioners took part in the consultation.

As it was important to form a picture of the FET system as a whole, the consultation processes included tutors and organisers from Post Leaving Certificate programmes, Apprenticeships, BTEI and VTOS programmes, as well as Guidance staff, resource workers, managers and literacy and numeracy tutors. Consultation meetings explored a common range of topics, which are summarised in the Interview Schedule and Analytic Framework shown in Appendices 1 and 2.

4.1 Literacy and Numeracy Needs in FET

The proportion of FET learners who struggle with the reading, writing and number demands of their programme varies from group to group and depends on a range of factors. These include the demands of the subject area, as well as external circumstances that may influence the profile of new recruits to the service. In some ETBs, staff have carried out their own internal research into the scale of the need, and found that this can range from none, up to as much as 50% of the group.

4.1.1 Extent and Scope of Literacy and Numeracy Needs

All consultation participants, without exception, stated that they routinely encounter learners for whom gaps in literacy and numeracy present a significant, and sometimes decisive, obstacle to their studies, although there were differences in their experience of the numbers of learners affected.

In some cases, the number of learners requiring literacy or numeracy support was in single figures:

> "Yes, there is a difficulty. In most groups there is at least one person who is struggling. This is true mostly in Levels 4 and 5, not so much in Level 6." (PLC Tutor)

These issues were evident across all FET programmes surveyed:

> "There is a huge problem. In VTOS, a lot of people are early school leavers. In Apprenticeships there would be one or two in every group. In one construction programme, seven learners out of a group of 14 needed support. So yes, some learners do experience literacy and numeracy difficulties." (FET Manager)

Many respondents thought that the need for literacy or numeracy support among FET learners is on the increase:

> "In recent years, it's very rare at Level 5 that there isn't someone in the group with a literacy difficulty." (PLC Manager)

Some respondents even reported having encountered learners who already have degrees and are following Level 8 programmes, who find it challenging to manage the reading, writing and number demands of their area of study. Overall, educators are concerned that learners'

competence in the reading, writing and numeracy elements of their vocational areas cannot be assumed:

> "There's an expectation that people are coming in with a level of competence. In an ideal world, they would be. But it's a wrong expectation…" (VTOS Tutor)

A recurring theme concerned the influence of the specialist programme content on the type of reading, writing, and mathematical skills that learners have to grapple with. This highly specific and context-bound use of language and number may be completely new for some learners, or may use familiar language and processes in unfamiliar ways:

> "Even people who have competence in a general sense, can have difficulty with the literacy or numeracy of a particular context." (PLC Tutor)

It is therefore clear that the difficulties experienced by some FET learners in handing the literacy and numeracy demands of their studies can have a decisive impact on their progress.

4.1.2 Impact on Learners' Experience of FET

Respondents agreed that struggling with aspects of literacy or numeracy can have a serious negative impact on the individual's personal, day-to-day experience. They feel under pressure, may lose focus, freeze, suffer loss of confidence and self-esteem arising from the experience of constantly falling behind. Under these circumstances, it is not unusual for learners to develop low expectations of themselves:

> "They struggle, feel that they are not able for the course." (Apprenticeship Tutor)

In some cases, this affects their interaction with peers and their general demeanour. Some experience feeling overwhelmed and others, again, suffer this in silence. A few people may react by deflecting their feelings and acting out:

> "Learners are at risk or in fear of being bullied and can exhibit disruptive behaviours as a way of distracting from their difficulties." (Youthreach Tutor)

Under these stresses, some learners, struggling with assignments and deadlines, finding it difficult to make progress in their studies, may absent themselves and, eventually, fail the module. In some cases they do not get that far:

> "If support is not found fairly quickly, they may drop out." (PLC Tutor)

FET practitioners see this as a missed opportunity, both for the learner and for the FET system, to help people become competent in skills they had not gained in compulsory schooling:

> "If they're on the wrong course and they drop out, they're not coming back." (PLC Manager)

Identifying the kind of help that people need at an early stage and ensuring that they are following the course that is right for them, is therefore a priority and a significant rationale for robust and effective initial assessment strategies.

4.1.3 Purpose of Initial Assessment

There is strong consensus among managers and tutors that initial assessment of learners' literacy and numeracy should be carried out in order to gather information that will support individuals in their studies, rather than to exclude them from programmes that may be deemed too difficult for them. The range of purposes identified include:

- **Placing:** ensure that learners are enroled on the program most suited to their needs and aspirations.
- **Establish a base line:** identify learners' starting level in these basic skills.
- **Learning support:** clarify the type and extent of learning support learners will need.
- **Influence teaching approach:** provide information that will shape teaching methods and strategies.
- **Individualise teaching and learning strategies:** tailor learning experiences to learners' individual needs.
- **Promote progression:** support learners in achieving their life goals through improved literacy and numeracy, as a result of positive learning experiences.

However, initial assessment is not an end in itself and the practical benefits of identifying learners' strengths and learning needs in relation to literacy and numeracy are determined by what happens

next. This is a key question concerning the range of supports available to meet any identified needs. It is also important to consider structural factors that can influence the effectiveness of any support measures carried out. These topics are explored in Section Five.

Notwithstanding the inclusive intention underpinning initial assessments in ETBs, sometimes the process indicates that a person has very significant support needs that are beyond the scope of what the system can provide, in the context of their chosen programme. When this happens, individuals are never refused entry to FET, but are always offered an alternative.

The outcome of the initial assessment process may therefore yield one of the following options:

- Entry to programme of choice.
- Entry to programme of their choice, with support needs identified.
- Offer of an alternative, preparatory programme, e.g. a similar programme at a lower level.
- Referral to the Adult Literacy Service for targeted work on literacy and/or numeracy.

Although some initial assessments currently in operation in ETBs are carried out prior to enrolment, in some programmes, such as Youthreach, the learner enrols first and their support needs, if any, are determined in the early stages of their studies. When assessments are carried out as part of the recruitment process indicate that an applicant is likely to have significant difficulties in coping with the demands of the programme, there is a tension between the goal of inclusiveness, and the educational imperative to ensure that an individual is placed in the most suitable learning context.

Some prospective learners are willing to accept the alternative offer of a place on a preparatory programme, or more targeted learning support. However, programme managers report that some learners are not happy with this advice, which can create a difficult situation. If the learner is reluctant to accept the recommendation:

> "...we try to talk them round. We tell them we have other learners who have done the same." (VTOS Coordinator)

FET managers with responsibility for recruitment, especially to Level 5 and Level 6 programmes, grapple with the competing demands of inclusiveness and educational integrity. Provision of learning supports and reasonable accommodations of different kinds can help to maximise access. However, depending on the needs of the learner, there are limits to what can be achieved in the context of programmes at these levels.

> "If the person is over 23, no qualifications are required. This means that FET really does need initial assessment to determine if they have the competence on entry." (PLC Tutor)

This concerns not only the individual's competence to handle the demands of the programme, but also, to carry out the requirements of the job for which the programme prepares them. This is especially important in relation to health and safety.

4.2 What to Assess?

In order to clarify this issue, it is necessary to consider which literacy and numeracy skills and competence learners require, when studying FET at these levels.

This question may be explored from two separate, complementary directions:

1. In the first place, by probing the specific literacy and numeracy content embedded in FET programmes, which naturally varies, according to the context of the particular area of vocational study. A definitive overview of the range of skills embedded in particular programmes, and those recurring across most or all of them, would require a comprehensive literacy and numeracy audit of all FET courses. This approach, the rationale for carrying out an analysis of this kind on a national scale, and the potential benefits and uses of the data it would yield, are explored later, in Section Five.

2. The second approach, which is considered here, explores the question "What to assess?" from the perspective of the learner. FET tutors and practitioners were asked to identify the exact areas of difficulty which their FET learners encounter in the course of their study of programmes at Levels 4, 5 and 6. Their answers provide a starting point from which to examine the scope of how these skills could, or should, be defined at these levels in FET. This, in turn, provides an indication of the range of competences that literacy and numeracy assessment at these levels should address.

For the purpose of analysis, responses are summarized below in four categories: literacy; numeracy; wider dimensions; and other.

4.2.1 Literacy Needs

One of the key themes emerging from the consultation process was the importance of advanced reading and writing skills associated with higher levels of study in a broadly academic setting. These emerged from the nature of the teaching materials used in the course of the programs, the type of writing that learners are expected to do routinely, both as part of class work and producing assignments and portfolios, and especially, in the demands of assessment. In relation to reading, some of the specific skills required that were mentioned include:

Reading 1

Comprehension, such as reading with understanding a newspaper article relevant to the subject area; extended reading; discrimination, selecting which information to attend to; identifying key points; reading for research; distinguishing fact from opinion, noticing bias, following a discussion; navigating references and tables of content; understanding academic vocabulary.

Writing 1

Freestyle writing, structuring a piece of writing such as an opinion piece, discursive writing and discussion; expressing ideas in their own words; note taking; writing assignments and reports; putting together a portfolio; using the language of learning, writing in formal register; referencing, tables of contents, footnotes; using subject-specific terminology, summarizing; report-writing, discursive writing.

All these requirements are to be expected in Levels 4, 5 and 6 FET courses. However, many of the obstacles identified, which could present significant barriers to learners' progress, were not confined to Levels 4, 5 and 6 in the vocational contexts.

Reading 2

Comprehension, reading continuous text, interpreting questions, identifying key points, following instructions, responding to punctuation, skimming, scanning, and word attack skills.

Writing 2

Express information in their own words, express own thoughts and ideas, form-filling e.g. to give personal details, paragraphing, sentence structure, basic grammar (e.g. agreement of subject and verb) spelling, punctuation, vocabulary, spelling, use of text-speak, handwriting.

This second set of literacy skills is consistent with QQI content for reading and writing at Level 3 or even, Level 2.

In relation to the scope of difficulty, therefore, the gaps identified covered a range from traditional functional literacy, to higher level reading and writing.

4.2.2 Numeracy

A similar picture emerges in relation to the range of numeracy or mathematical skills required for programmes at Levels 4, 5 and 6. In common with the gaps in literacy, numeracy/mathematical gaps ranged from high-level, metacognitive skills, to the ability to handle basic operations.

Higher level numeracy skills mentioned included: concepts in maths, formula manipulation, problem-solving, and mathematical mind-set. However, most of the competences referred to concerned knowledge of operations and procedures. These covered the full range of numeracy content, comprising number, in particular measurement, geometry, algebra and data.

Basic operations such as multiplication and division; percentages, decimals, fractions; ratio, long division; estimating; understanding of angles; estimating application of procedures, deciding on correct operation, deciding in which order to carry out procedures when working out equations; interpreting numerical data; time, distance, space; graphs, scale, concepts. Place value was also mentioned.

Respondents pointed out that these specific gaps could present significant barriers to learners' progress in vocational contexts. Ratio, for example, is important for hairdressers who need to mix colours; electricians sometimes need to manipulate formula, such as in applying Ohm's law to calculate the size of cable to use to carry a current. One participant recalled a group of learners following a Level 8 technical apprenticeship who had difficulty with long division they needed for specific calculations.

Across all levels, a recurring observation was the importance of language in numeracy. Some learners have difficulty in understanding

terminology, in reading questions and generally, in understanding, as well as in using, the language of mathematics. This often involves new terminology and also, common words used with a specialist meaning.

One of the most interesting features of participants' observations of numeracy requirements was the strong emphasis on the metacognitive aspects of applying numerical knowledge and skills. At a fundamental level, this involves not only being able to carry out a specific set of operations, but knowing when these are called for in real-life application; and, where several steps are required, in knowing the order in which they should be carried out. As one tutor observed;

> "When learners learn those operations, they can do pages and pages of them for you on paper and get them right. But they don't know it when they see it." (Apprenticeship Tutor)

4.2.3 Wider Dimensions

In addition to the technical knowledge and skills referred to above, participants identified other, qualitative aspects of competence which they considered essential for effective application of literacy and numeracy in context, but which were often not in evidence. These include:

- Critical thinking; working on own initiative; self-discipline.
- Confidence, independence.
- Ability to use and apply knowledge and skills in different settings; applying the theory and procedures to a different context.
- Fluency, applying skills in public, and under pressure.

In this context, terms such as 'confidence' should be considered, not as personal qualities, but rather, as aspects of observable behaviour which describe the manner in which the learners use their skill in real-world situations. These dimensions of effective performance comprise one strand of the Wider Benefits of Learning project,[69] which explores and defines the impact of learning on individuals' quality of life.

This holistic concept of competence as defined by national and international bodies, explored in Section Two, supports the perceptions of practitioners and managers concerning the wider aspects of competence in literacy and numeracy. This has implications for both teaching and assessment.

4.3 General Comments

Practioners' observations on the dimensions of literacy and numeracy which are often problematic for learners following FET at Levels 4, 5 and 6, yield a number of general insights.

Blurred Boundaries

Practitioners' views of learners' literacy and numeracy needs highlight the blurring of boundaries between different content areas. One example concerned the overlap between higher level literacy skills, such as writing essays, how to structure an assignment, how to do references, and study skills. It was noted that learning at the higher levels in FET is more demanding than earlier experiences of study and requires a wider range of learning strategies.

In addition to these technical demands, participants identified other, cognitive demands such as concentration, memory and self-organisation.

> "Learning skills and cognitive skills are sometimes a difficulty. Even Level 6 learners are not always able to apply learning skills." (PLC Tutor)

As the next section will show, some ETBs make use of study skills inputs, such as individual sessions or more extensive programmes, as a vehicle to assess learners' literacy and numeracy at an early stage in the programme. These strategies contextualise the literacy and numeracy items within the setting of Learning to Learn.

Another skills area recommended for inclusion within the definitions of literacy and numeracy related to digital competence. The latest OECD international survey, PIAAC, identified "Problem Solving in Technology-Rich environments" as an important emerging aspect of literacy competence in the 21st century;[70] and, significantly, found that the levels of competence in this area were worryingly low.[71]

69 Kett, M. (2015) "Review of the Wider Benefits of Learning," Ireland: ETBI.
70 Problem-solving in Technology-rich environment was assessed in terms of " the respondent's ability on laptop computer to use a number of common computer applications (e.g. email, spreadsheets, word processing, internet browser) to complete various tasks" Central Statistics Office/ An Phríomh-Oifig Staidrimh (2013) "Survey Results from Ireland for the OECDs Programme for the International Assessment of Student Competencies," Dublin: Stationery Office, p. 5. https://www.cso.ie/en/methods/education/piaac/
71 "In Ireland more than two-fifths (42%) of adults score at or below Level 1 (29.5% at Level 1, 12.6% below Level 1)." ibid. p. 6.

Although the digital aspect of literacy was not a major focus of this study, there are indications that this should be an important area of development in the near future, drawing on the Digital Competence Framework for Citizens of the European Commission.[72]

Complexity of Concepts

The above discussion shows that in FET programmes at Levels 4, 5 and 6, concepts are both more complex, and less clearly defined than those at Levels 1, 2 and 3, where the terms 'literacy' and 'numeracy' are clearly understood in terms of content in QQI communications and mathematics modules. This stakeholder consultation has therefore raised a number of questions, some of which were flagged earlier in the context of the international review:

1. Where should the boundary be drawn between literacy/numeracy, and communication/mathematics, in the context of this assessment initiative?
2. Should there be a boundary at all, or does it make more sense in this context to address **any** reading, writing and numeracy/ mathematic demands embedded in programmes at Levels 4, 5 and 6?
3. Should definitions be expanded to include related areas, such as Learning to Learn and/or Digital Competence?
4. Should the focus of assessment of literacy and numeracy be on generic skills used in most or all areas of life, including everyday life work study, and community living; or on contextualised literacy and numeracy?

Conclusions regarding these questions are discussed in the context of the Guidelines for literacy and numeracy assessment described in Section Five.

4.4 Assessment Strategies Currently in use in ETBs

Assessment procedures designed to gauge the literacy and numeracy skills of FET learners at Levels 4, 5 and 6 are already deeply embedded in ETB structures and widely implemented throughout the country. Most, though not all, centres conduct some form of initial assessment for learners who apply to join a FET programme at Levels 4, 5 and 6. This section draws on data supplied by a cross-section of managers, practitioners and support staff in all FET programmes implemented in the 12 ETBs consulted: Apprenticeships, VTOS, BTEI, Youthreach, Training Services and PLC programmes. It describes methods and materials in current use to support both initial and ongoing assessment. The broad picture emerging, while not exhaustive, may be considered as an overview of the range of strategies in current use.

The first, and most significant, feature of the assessment landscape in FET at these levels, is the diversity of methods, materials and tools being used in ETBs across the country, both within and between the different FET programmes on offer. This is often due to logistical factors beyond the control of the ETBs, such as geography, type of premises and staffing, which differ greatly in different locations.

The design of national Assessment Guidelines for FET at these levels described in Section Five below, takes this diversity into account.

This section synthesises the data on assessment methods and tools to describe essential features that inform the Assessment Guidelines described in Section Five. It begins by highlighting useful connections between recruitment procedures and initial assessment; then provides concrete examples of current practice, chosen to illustrate key aspects of the assessment processes relevant to literacy and numeracy in FET.

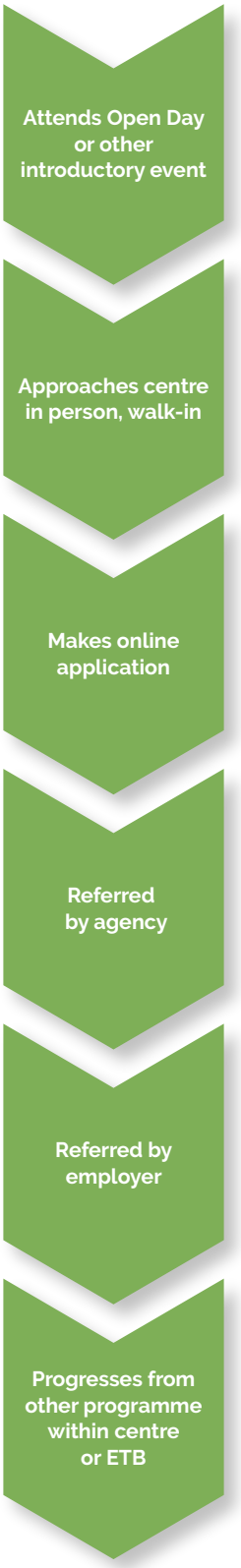
4.4.1 Initial Assessment

Learner's Route to the Programme

One of the most significant factors in the approach to initial assessment in ETBs, and in particular centres within ETBs, is the recruitment procedure through which new learners access a particular FET programme at Levels 4, 5 or 6. Figure 9 outlines some of the benefits and challenge of different methods, in relation to gaining an early awareness of the learner's need for support in literacy or numeracy.

72 Carretero Gomez, S, Vuorikari, R., Punie, Y. (2017) "DigComp 2.1. The Digital Competence Framework for Citizens with eight proficiency levels and examples of use", Joint Research Group/ EU Science Hub/European Commission Luxembourg: Publications Office of the European Union Overview of the Digital Competence Framework for Citizens.

Figure 9: Learner's Route into FET and Initial Assessment



From progression

If the learner is progressing from another programme in the same ETB or centre, the programme coordinator or tutor may already have access to relevant information about the person's ability to handle a higher level programme, including any diagnosed learning difficulties and support needs.

External referrals

Where learners are referred by an external agency or by an employer, relevant information about the individual's ability to handle a particular programme, including their competence and confidence in literacy and numeracy may not be readily available.

A robust initial assessment process within the ETB is therefore essential, to ensure that people in this situation get the support they need to maximise their chances of success, even if this means redirecting them to a programme at a lower level or to the Adult Literacy Service.

Furthermore, given the increasing complexity of the literacy and numeracy demands of many employment settings, and the upward drift of qualifications needed for jobs which formerly required none, **the production of literacy awareness training and national referral protocols for employers and front-line staff in government agencies, is now urgent.**

Online applications

This is the method of application to PLC courses at Levels 5 and 6, which is administratively efficient. However, this method removes the initial face-to-face contact which allows the prospective learner and the course organiser or tutor the opportunity to exchange impressions and information. Although applicants may be asked if they have support needs or a diagnosed learning difficulty, some new learners are reluctant to disclose that they have previously been diagnosed as having a learning difficulty in school. Others may not even be aware that they need support.

In the absence of early assessment of literacy and numeracy, unmet needs may only become apparent when a learner is working on their first assignment. This can be easily avoided by early assessment of skills. Where learners enrol online, it will be especially important to ensure that **structures and resources are in place so that initial literacy and numeracy assessment for new learners takes place either before, or as soon as possible after they start their programme.**

Walk-in

Some new learners are attracted to FET courses by advertising, by word-of-mouth or by a personal interest or motivation. If they have had no contact with education and training for a long time, ETBs rely on initial assessment to learn about the person's previous experience of education, what the best learning situation is for them, any help they might need, or if they should be advised to follow a different course. Initial assessment for these learners is a delicate process which needs to be handled with care, to avoid discouraging people.

Course coordinators and subject tutors at Levels 4, 5 and 6 who have a role in recruitment and/or initial assessment need to be aware of the potential barriers that literacy and numeracy may present for some people. Additionally, they should be provided with support in identifying and dealing with these, either in the form of training, or support from resource workers/adult literacy service, or both.

4.4.2 Settings Within Which Initial Assessment Takes Place

Sometimes, the prospective learner is able to engage with programme coordintors and tutors at various types of Introductory events.

Figure 10: Events and setting for initial assessment

As things stand, there is no uniform setting within which initial assessment takes place, either across ETBs, or within individual programmes. Rather, managers and coordinators make use of a range of opportunities, sometimes taking advantage of ETB-wide events, such as Open Days, and sometimes tailoring the process to an individual or group meeting, either before or close to the start of the programme. The choice of events is influenced by logistical factors within the ETB such as premises, geographical spread, staffing and other factors.

Figure 10 shows the range of contexts within which initial assessment is already taking place in ETBs. These events provide a variety of opportunities to give learners information about the demands of the programme, and also, to learn about the individual's motivation and their learning readiness, including their literacy and numeracy competence in relation the demands of the programme. **The potential for using introductory events such as study skills and induction programmes as a context for initial assessment, could be explored by ETBs not already doing this.**

Some programmes make use of two or more of these settings as opportunities to gain insights, at different levels of detail and formality, into learners' readiness for their chosen programme and their support needs.

4.4.3 Example Of Initial Assessment Practice

The following examples **(Figures 11 - 17)** have been chosen to illustrate a variety of approaches currently operating in different programmes in ETBs throughout the country.

Figure 11: Example 1, Open Day, All Programmes in a Single Adult Education Centre

People who attend the Open Day may decide on the day to sign up to a programme. They take part in an assessment process which comprises:

- Face-to-face discussion.
- Task contextualized to the programme, i.e. write a short piece about the reasons for their interest in a given programme. Stimulus topics are provided.
- Complete an application form, which includes a question asking if they require any supports.
- Following this, there is an interview on a one-to-one basis with the center coordinator or a member of the Guidance staff.

The purpose of the Open Day is to provide information about the available programmes in the centre, and to manage expectations of prospective learners regarding programmes they are interested in. The event also serves as a Registration Day, as people can sign up to a programme on the day.

Figure 12: Example 2, PLC College, Levels 5 and 6 Programmes

The assessment process for new recruits comprises:

- Individual interview.
- Contextualised tasks. Tasks include: reading comprehension contextualised to the programme; making and labelling mind maps; continuous prose writing; proof-reading a document; identification of different types of communication and their purpose. Material/ tasks contextualised to the modules.

Level 6 applicants are only assessed initially if they are new to the centre. Many are progressing from Level 5 courses and are therefore known to the organisers.

Applicants to PLC programmes at Levels 5 and 6 in this ETB are not usually interviewed, unless they are over 25 or have indicated on their online application that they have already been assessed as having a special educational need (SEN). Those learners are assessed in order to determine the most suitable programme for them, and also, to identify the specific supports they will need, if any.

If an initial interview and assessment indicate that the learner will require support for special needs, relevant staff meet to discuss which HEA-funded measures to put in place to assist them with their programme. If the assessment process indicates that the learner is not ready for this programme, they may be recommended to enrol on a Level 4 course or else take part in Learning to Learn inputs.

Figure 13: Example 3, BTEI in One Geographical Area of an ETB

All learners applying for the same programme take part in a 2-day Induction Programme.

In groups of 15–20 people, they work through the activities contained in a 10-page Induction Pack.

This pack, which is aimed at Tutors/Assessors, sets out content and methodology for introducing the course aims and also identifies some of the literacy and numeracy outcomes embedded in the module. Included are suggested reading and writing tasks provided as models which can be used or adapted to gauge individual learners' level.

This is accompanied by a recording tool: Induction Feedback Forms, where the results of the assessment is noted, comprising the learner's level and the evidence upon which the judgement is based.

The information gathered during this process, together with the Learner's Application forms and all their written work done during Induction, is analysed by tutors and the BTEI coordinator. This evidence provides the basis for decisions about the learner's entry to the programme. Applicants may then be offered a place on their chosen course, or on a course at a lower level, or referred to the literacy service.

It is interesting to note that this robust initial assessment strategy is carried out before any applicants are offered a place on the programme. Furthermore, it is implemented in one geographical area of the ETB, where all programmes operate out of a single centre, supported by an Access Officer and a full complement of staff. In other areas of the same ETB, where programme provision is scattered through outreach centres, initial assessment is less homogenous and takes place in individual centres.

Figure 14: Example 4, BTEI, Group Meeting of Learners on a Single Programme

Applicants for this BTEI programme in Health Care may apply on paper, online, or be referred by the HSE or their workplace.

They are then invited to an Information Day for applicants to this particular programme. At this information event there could be between 15 and 20 applicants present.

Applicants are asked to fill in the registration form. The course tutor and coordinator circulate and observe how much help, if any, individuals need. The running order for the Information Day comprises:

- Input from course coordinator outlining the content and demands of the course.
- A short individual meeting with each applicant.
- A literacy test, comprising multiple choice and a small amount of writing. This is presented informally, rather than as a formal assessment.
- Completion of registration form.

The process described above allows staff to identify, to some extent, reading and writing competence, and to judge whether the applicant will manage this Level 5 course or if they should be offered a Level 4 programme or should be directed to the literacy service. Coordinators report the system works well in discovering at an early stage who is likely to need help with literacy. There are also risks involved with this approach with one tutor observing:

> "...sometimes, people leave when they're asked to fill out the form."

Figure 15: Example 5, Contracted Training Services, Traineeships Levels 5 and 6 Individual Meeting

Training Services, Contracted Training and Traineeships, Levels 5 and 6

Initial assessment comprises part of the recruitment process and involves three main strategies:

- Individual interview for all prospective learners. One or more of a range of tests, which include:
  - Generic test adapted from old FÁS aptitude tests, comprising multiple choice tests with 4 answers per item, from which learners choose the correct one, 60 items, plus recording sheet.
  - Differential Aptitude Tests (DATS), selected, 3 parts.
  - Cambridge test.
- Application form completed.

Initial assessment for entry to Traineeships, of which some are Level 6, is similar to the above process. Individual subject areas use assessment tools related to the subject area. For example, Engineering uses psychometric testing, the Differential Aptitude Tests (DATS); Autocad uses Cambridge Occupational Profiles testing.

It is interesting to note that these programmes, which are delivered by external training services contracted to provide specialist programmes, require applicants to complete all assessments before they are formally enroled on programme. In this case, the explicit purpose of initial assessment is to ensure that the applicant has the ability to manage the course. For admission to Level 5 programmes, a score of 50% is required.

Figure 16: Example 6, VTOS, ETB-wide, Multiple Settings

VTOS, ETBI-wide Initial Assessment is carried out in three stages:

1. Open Day: prospective learners can "walk in" and request information about any of the programmes open to VTOS in the ETB and possibly sign up for a course. There are no interviews at this point but people are given application forms.
2. Individuals choose their course. Tutors are available to discuss each course in detail, what is expected, what the standards are. Potential learners are directed to the Guidance service, if necessary.
3. Learners take part in an Induction Programme which runs over two or three days.

This ETB operates a coordinated approach to initial assessment for all VTOS programmes, which begins with general, informal contact between the individual and the centre, followed up by individualised contact with tutors. This interaction allows the tutor to gain an initial impression of the person's learning readiness and may result in a referral to the Guidance service, where more in-depth assessment can take place. An Induction Programme for all learners provides the opportunity to assess literacy and numeracy in particular.

Figure 17: Example 7, Youthreach, One Centre

Youthreach Assessment is carried out during and after enrolment following this process:

- Initial meeting when tutors meet new learners and their parents. The discussion explores any supports they may have received and any assessments that may have already identified a learning difficulty.
- New learners fill in a form giving information about their school experience.
- Part of two generic tests: the WRAT 4 and also, the BKSB English test. Tutors are trained to use these tests.

Youthreach differs in some respects from other programmes in that the target group is early school leavers, which means that fairly up-to-date information about their support needs may be available from schools. Therefore, before the learner starts the programme, the centre obtains reports from the school giving details of their previous learning. The generic tests are carried out shortly after the learner starts on the programme. These are administered by tutors who are trained to use these instruments.

Figure 18: Key Skills Initial Screening Tool

The Key Skills Screening Tool is an assessment strategy supported by tailored resources, used throughout one ETB. It is designed for initial screening of learners applying for QQI-validated programmes at Levels 3–6 on the National Framework of Qualifications.

The assessment process provides initial information about new students' competence in English/Communications, Numeracy/Maths and ICT Study Skills.

English and Maths assessments are available for QQI Levels 3–6 in English, and 3–4 in Maths. Each assessment involves:

- Learner self-assessment, structured around a supplied checklist.
- Writing and mathematical tasks, tailored to relevant QQI Levels.
- Detailed observation schedules, tailored to each assessment, which support the assessor in recording areas where help may be needed.

Each section of the Screening Tool is designed to be completed within 20 minutes..

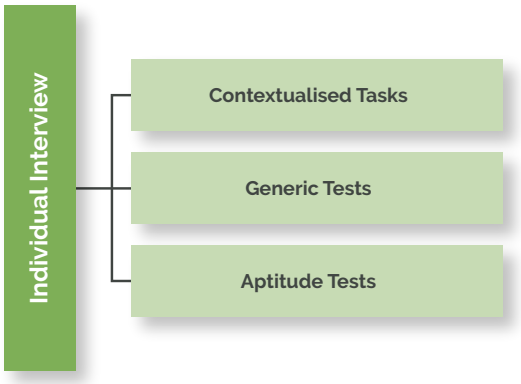
The purpose of the Screening Tool (Figure 18) is to be inclusive. The information the assessment process generates may:

- Identify the most suitable level of programme for the student.
- Confirm that the student can meet the demands of the programme/s for which they are applying.
- Result in the student being offered a place plus additional support to help them reach their primary learning goal/s.
- Result in the student being re-directed to a programme/s at a more suitable level.

4.5. Common Features of Initial Assessment

Notwithstanding the various ways in which assessment methods and materials are combined in different settings to identify new learners' literacy and, to a lesser extent, numeracy support needs, there are common features.

Figure 19: Initial Assessment Methods: Overview



Most of the consultation participants reported that some form of initial interview for new FET learners takes place in their programme and centre, though there are some exceptions. Where these interviews do take place, they are often conducted as an informal meeting, either at an Open Day or Registration Day. Often, this is followed by a more structured individual meeting which may involve different staff, including the programme coordinator and sometimes, but not always, the course tutor and/or Guidance staff. It is important to note that topics addressed in this first meeting are not confined to literacy and numeracy and in some cases, this may be only a minor part of the interaction. However, there is no doubt that existing procedures such as the initial interview provide an opportunity for introducing an element of assessment, or scaling up processes that already occur.

That said, in some larger centres, especially those delivering Level 5 and 6 programmes, new entrants may not be routinely interviewed, unless they have indicated on their online application form that they have a learning difficulty. Programmes and centres where large numbers of learners start their programme at the same time may not have the resources to engage on a one-to-one basis with every learner.

This may explain the fact, reported by consultation participants, that the literacy or numeracy difficulties of some learners in Levels 4, 5 and 6 FET programmes only become evident several weeks after the start of the programme, usually in the context of the first assignment. All agree that this may be too late and that some learners may even leave the programme before that, without FET staff being aware of the reason.

This indicates the crucial importance of ensuring that all FET learners starting programmes at Levels 4, 5 and 6 undergo some form of initial assessment process that shows whether they have a support need in this area; and that this should take place as early as possible, either before or very shortly after enrolment.

Section Five below describes a multi-strand approach to initial assessment for entrants to FET programmes which comprises a range of opportunities, including group activities, in the context of Induction or Learning to Learn sessions. These options may prove to be workable strategies in centres which do not have the resources to conduct individual interviews with new learners. **However, the absence of initial interviews indicates a serious gap in resources and support provision for literacy and numeracy in some areas of the FET sector, especially in PLC programmes.**

All the examples described above show that the initial meeting or interview, whether conducted individually or in a group, is routinely followed by asking learners to carry out a literacy or numeracy task, and in a few cases, several tasks. These cover a very wide range of content and materials and include:

- Completing the registration or application form.
- Working through tasks tailored to the content of the programme.
- Locally-developed generic skills test.
- Commercially produced standardised tests such as BKSB and WRAT 4/5.

The significant aspect of this approach is that information gathered in the course of the initial interview, which includes the learner's own appraisal of their abilities, as well as the assessor's initial judgement, is confirmed or corrected by observation of how the new learner manages the tasks.

Also worth noting is the approach adopted by externally contracted training services, who have their own suite of standardised assessments, and include aptitude tests tailored to the specific programme.

These elements of initial assessments which are already in use in the context of different FET programmes, ETBs and centres, provide a starting point from which a framework for national guidelines on literacy and numeracy assessment in FET may be constructed.

4.6 Ongoing Assessment: Current Practice

In common with those identified internationally, some of the tools and strategies used in ETBs can also be used to track progress on an ongoing basis. The following examples illustrate some useful strategies:

Figure 20: Repeat Generic Test

Many Youthreach centres use the WRAT 4 generic skills test as part of the initial assessment process when students join the programme. A repeat version of the test is administered some months later, to monitor learners' progress.

Figure 21: Ongoing Assessment. Progress Framework

Progress Framework

This is an integrated system of initial and ongoing assessment, where learners' progress on literacy and numeracy is tracked on a specially designed Framework. This comprises:

- A set of literacy and numeracy learning outcomes aligned to QQI Levels 1, 2 and 3, describing technical knowledge and skill.
- A set of process dimensions of learning required for application of the skill in real-life contexts.
- A tracking tool, comprising a form that allows tutors and learners to record progress on knowledge, skill and the process dimensions.

In this system, tutors devise tasks which are aligned to the NFQ, and observe learners' performance, both in knowledge and skill, and in process dimensions such as fluency, independence and confidence. This individualised approach is applied at the stage of initial assessment and repeated periodically, usually twice a year.

Figure 22: Support to Apprentices Programme, Connecting Initial and Ongoing Assessment

Initial assessment: Support to Apprentices Programme

Initial assessment for craft apprenticeships take place at the start of Phase 1, on registration.

The apprenticeship coordinator meets the group and gives them information about the service and structures.

- All new entrants work through an Induction Programme containing integrated activities.
- These include numeracy and literacy tasks based on the content of the craft programme.
- This is complemented by an interview.
- The tutor records the outcomes of the assessment in a learning journal and a tutor booklet. This also contains schemes of work and an individual learner results are used to support the learner.

Results indicate which learners will need support, and this is provided on a centre by centre basis.

Resources for teaching and ongoing assessment resources have been identified and developed. Many are designed to match the content specific trades, and focus on the nature of the numeracy and literacy embedded in the programmes. Assessment and teaching resources are accessible from a shared website run by the Support to Apprentices Group (SAG).

One of the most comprehensive initiatives in FET is the Literacy and Numeracy Support to Apprentices Programme, which was initially developed and implemented by Galway and Roscommon ETB but is now widely implemented in all ETBs. This initiative is under the auspices of the Support to Apprentices Group, which is a national body comprising representatives of all 16 ETBs working collaboratively to implement the programme in all Training Centres.

The aim of the Support to Apprentices Programme is to provide "a sustainable model of literacy and numeracy support for apprenticeship" within the context of the Literacy and Numeracy Strategy, 2014–2019.[73] Assessment and support activities

73 SOLAS (2014) op. cit., pp 90.

focus on the craft apprenticeships,[74] especially, though not exclusively, on the mathematical content of those programme.

An important element of the programme comprises an initial assessment process at Phase One, the on-the-job stage when apprentices take up their employment. This is integrated into a SOLAS Induction Programme and comprises a suite of initial maths assessments woven into the induction process, through a series of customised items contextualised around typical induction topics, such as health and safety. Apprentices who need support are offered a range of options, with classes in the local training centre in Study Skills, Maths, English or Technology.

At the start of Phase Two, when apprentices' studies take place in the Training Centre, initial assessment involves more detailed test items, which are constructed around a prior analysis of the maths content of the individual trades. This is followed up by customised supports for apprentices, comprising individualised or group work focused on literacy, numeracy and ICT with a dedicated resource tutor; as well as work, as needed, with support tutors for other skills such as language and drawing. This is accompanied by close collaboration with apprenticeship instructors, supported by a range of practical resources including study skills handbooks[75] and links to study-aids and ongoing assessment such as YouTube videos, everyday assistive technology, resources for class and individual study. In addition, a tutor support handbook aimed at apprenticeship instructors includes tips and ideas[76] integrated into tasks and content typical of craft apprenticeships.

Ongoing monitoring of the programme outcomes indicate a very positive impact, including reduced drop out, reduced referrals[77] and improved educational outcomes. This is most likely due to the fact that the strategy encompasses: analysis of the literacy/numeracy content of the programme, initial assessment and provision of intensive dedicated support.

The Support to Apprentices Group is one of the most comprehensive resources for learning support within the FET system. The work of the group focuses specifically on the craft apprenticeships and provides an inter-related set of resources including initial and ongoing assessment, materials, and staff who work in training centres with apprentices and tutors.

Figure 23: Ongoing Assessment Integrated into Course Work

"In the PLC programmes, the class tutor observes learners' progress during the teaching process in general and this would include assessment of literacy and numeracy. Therefore, literacy and numeracy assessment is carried out on an ongoing basis, is informal and integrated into the technical program content. At the end of the first term, coming up to Christmas, there is an interim program assessment and this would show who may need extra support."

(PLC Tutor)

"There's no single system. We use questionnaires, interviews, and progression forms are filled in periodically."

(VTOS Tutor)

"This happens in the context of the programme. If there was an issue, tutors would come to us. Sometimes people drop out. Our drop-out count could be related to that."

(PLC Manager)

"In BTEI, there's ongoing assessment of literacy and numeracy. It's integrated into the programme work. Learners would get feedback on how they are getting on in general but literacy and numeracy is not assessed separately."

(BTEI Tutor)

"On going assessment is informal rather than formal for the most part. We don't want to frighten people off. So for the most part, ongoing literacy and numeracy assessment takes place within the context of the tuition of the regular program. There is no time and there are no resources to do anything more concrete."

(VTOS Tutor)

74 Metal Fabrication, Carpentry, Electrical, Motor Mechanics, Plumbing, Tool Making, Bus Driving
75 Jones, Alison (2017) "Study and Learning Handbook for Further Education and Training Courses," Dublin: SOLAS/ETBI.
76 Jones, Alison (2016) " Ideas for Integrating Literacy in Craft Apprenticeships and Courses."
77 In the context of Apprenticeships, the term 'referral' means that the learner's work has not yet met the standard required to achieve the award.

Concerning ongoing literacy and numeracy assessment in FET programmes at the higher levels, one of the most widespread approaches is observation of learners' progress in the context of their work on the technical content of the course. Participants report that by monitoring learners' progress on QQI assignments, any literacy and numeracy difficulties will come to light.

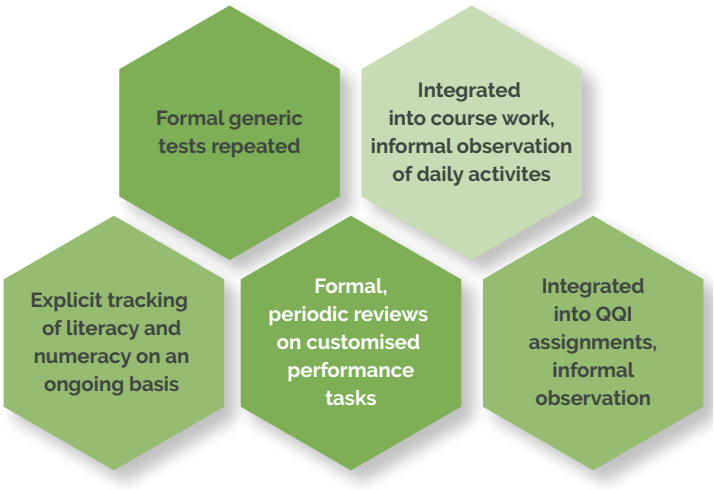
One disadvantage of this strategy is the delay in identifying problems as they arise. If a difficulty emerges, for example, when the first assignment is presented, it is likely that those same issues presented a barrier to the learner's progress in the preceding days and weeks.

Some of the examples above illustrate how progress in literacy and numeracy can be assessed effectively in an integrated setting. However, as the recent ICF report on integrating literacy pointed out,

> "The risk with this approach is that it relies on tutors actively monitoring the performance of students."[78]

This active monitoring of literacy and numeracy progress by subject tutors cannot always be taken for granted. However, this approach can work well when the literacy and numeracy content is explicitly identified and consciously monitored, and also, occasionally recorded, either by a resource worker or literacy tutor, or, if possible, by the course tutor. In the absence of this advance planning and the support structures that make conscious monitoring of the literacy and numeracy content explicit, it is possible that ongoing assessment of these needs can be eclipsed by teaching and assessment of the programme content.

Figure 24: Ongoing Assessment Methods: Overview



The methods outlined here show that ongoing assessment for formative purposes is indeed practised in different ways in some FET programmes. However, it is likely that in many cases, tutors rely on informal observation, which, as noted earlier, may not always be systematically directed to the literacy and numeracy content.

The approaches described above illustrate the respective advantages of both formal, and informal approaches to formative assessment. On one hand, as informal assessment is part of the routine interaction between tutor and learner, vocational content provides a meaningful context within which literacy and numeracy skills may be taught and assessed. This process may be complemented by a more systematic, formal approach which involves conscious reference to key aspects of literacy and numeracy, also allowing for the periodic recording of progress.

A further important question concerns the extent to which initial and ongoing assessment processes are connected. Some of the examples described above make a conscious effort to follow through on monitoring learners' progress on specific literacy or numeracy needs identified on entry to the programme but it is not clear if this is a feature of all current practice. **Connecting the outcomes of initial assessment to ongoing assessment plans is an essential feature of a coherent and effective assessment strategy of literacy and numeracy in FET.**

4.7 Key Features of Current Assessment Practice

i. Initial assessment procedures are already well-developed in many FET programmes and centres.
Consultation participants from most programmes and centres represented in this study indicated that they already implement some form of initial assessment, which often, but not always, addresses learners' literacy and, to a lesser extent, numeracy skills. A few centres reported no initial assessment at certain levels of some programmes but this was the exception rather than the rule.

ii. No one size fits all system exists at present.
Initial assessments are carried out in different ways, in different settings, using a wide variety of tools and materials. This diversity occurs not only between ETBs, but

78 ICF (2018) op. cit., p 27.

also, within ETBs, and even, within the same programme.

iii. Local conditions and practical considerations such as recruitment procedures, premises, staffing, geography and other factors such as resources, all influence the choice of assessment strategies and tools.

iv. Some initial assessment takes place before learners enrol, and some afterwards. Initial assessment prior to enrolment is usually carried out for the purpose of placing the learner in the optimum learning environment, and for identifying suitable resources that will help them to manage any obstacles presented by the literacy or numeracy content of their programme. However, in some cases, the individual's support needs may be so great that they are advised to enrol in a different programme, or to engage with the literacy service.

Initial assessments that take place after enrolment work best when they are carried out at or near the start of the programme. If this is deferred for some weeks, it may be too late to identify the relevant support needs and vulnerable learners may have dropped out by then.

v. Some generic tests which assess learner's literacy and numeracy skills on a stand-alone basis are currently in use for programme entrants at Levels 4, 5 and 6. A small number of programmes, especially those provided by contracted training providers, also use aptitude tests relevant to the programme sector.

vi. Contextualised assessments, which embed the literacy or numeracy assessment in a task built around an authentic context, are used in many programmes and in most ETBs. These are often contextualised to the programme sector but topics from Induction Programmes and Learning to Learn inputs are also used.

vii. The informal interview forms part of the initial assessment processes where initial assessments take place. Assessors probe a wide range of topics with the aim of gaining a preliminary indication of the learner's learning readiness, which includes, but is not confined to, their literacy and numeracy skills.

viii. Less assessment of numeracy was evident in the course of this consultation than processes designed to assess literacy.

ix. Ongoing assessment takes place, for the most part, on a day-to-day basis, as part of monitoring the learner's progress in the vocational content of the programme, including class-work and QQI assignments.

x. Repeat stand-alone tests are a feature of formal formative assessment of literacy and numeracy in some contexts.

xi. Formal formative assessment of literacy and numeracy is carried out in a few centres supported by relevant tools and resources, such as tracking frameworks and recording instruments.

xii. Informal formative assessment on literacy and numeracy, integrated into the technical programme content, is widespread.

xiii. Connecting initial and ongoing assessment is carried out in only a few settings. There was little evidence of formal ongoing assessment or tracking of learners' progress in relation to specific literacy or numeracy needs identified during the initial assessment stage.

These key features of literacy and numeracy assessment currently used in ETBs at Levels 4, 5 and 6 gives an indication of the range of practices on which a systematic, FET-wide system may be based and set out in National Guidelines. The approach recommended in Section Five is informed by these findings, and by key elements of international best practice.

Section Five:
Literacy and Numeracy Assessment in FET: Conclusions

This section addresses key questions which emerged from the research process documented above. Conclusions presented here draw on findings from the international literature review, from stakeholder consultation and also, from consideration of theoretical and conceptual dimensions of literacy and numeracy relevant to assessment in Levels 4, 5 and 6 FET programmes. The six questions considered here are:

1. What should be assessed?
2. What purpose should literacy and numeracy assessment serve in the context of FET programmes at Levels 4, 5 and 6?
3. Which methods and materials should be used to carry out those assessments?
4. Which tools and resources are needed on a national level, to support literacy and numeracy assessment in FET?
5. What systemic features need to be modified, in order to support effective literacy and numeracy in these contexts?
6. What are the current challenges that could present barriers in effective assessment?

5.1 What Should be Assessed?

Given the real-life context which the FET programmes provide, the main focus of literacy and numeracy assessment is the learner's ability to use the appropriate skills as these arise, in the manner required to handle the technical demands of their programme.

5.1.1 Competence

It will therefore be necessary for literacy and numeracy assessment to address not only knowledge and skill, but all dimensions of competence relevant to the programme content and context.

To add to the international definitions of competence explored in Section Two, it is worth revisiting how this concept is defined on National Qualifications Framework, which describes competence as[79]

> "...the process of governing the application of knowledge to a set of tasks that is typically acquired by practice and reflection. It is the effective and creative demonstration and deployment of knowledge and skill in human situations. Such situations could comprise general, social and civic ones as well as specific occupational ones."

The 'human situations' include, but are not confined to, the education and training context of FET. This can provide the motivation of an authentic situation as a starting point for learners who have previously found it difficult to address the literacy or numeracy needs of the 'general, social and civic' dimensions of their lives.

5.1.2 Range and Scope

Concerning the range and scope of literacy and numeracy that should be assessed in the context of FET programmes at Levels 4, 5 and 6: there is a strong rationale for including foundation level skills, as defined by QQI Levels 1, 2 and 3; and also, any advanced language, communication and mathematical content embedded in the programme. In practical terms, it will be more useful to view the range and scope of literacy and numeracy content in FET programmes as points along a continuum of language and mathematical competence, rather than defining a cut-off point that excludes more complex skills.

79 QQI (2014) op. cit.

Initial and ongoing assessment processes should address learners' competence in relation to any aspect of language, communication and mathematics embedded in FET programmes at Levels 4, 5 and 6.

The answer to the question 'what should be assessed' in this context may therefore be summed up as follows:

- **Basic level skills** traditionally associated with literacy and numeracy programmes, such as spelling, grammar, basic number operations.
- **Advanced literacy and number skills** associated with higher levels of FET study and programmes, such as report writing, use of mathematical formulae etc.
- **Wider dimensions** that describe competence and application, including independence, fluency, ability to apply skills in different settings.

5.1.3 Generic or contextualised approach?

Generic Approach

The term 'generic' refers to literacy and numeracy skills which are found in many or most contexts in work and personal life, defined without reference to a particular setting. They are often listed in checklists and programmes and correspond to the overview of literacy and numeracy skills where learners have been found to have difficulty summarised in Section 4.2.1 above.

Contextualised Approach

The contextualised approach expresses these skills in relation to how they are used in a specific situation. For example, a generic ability to 'calculate ratios' may be demonstrated in a Hairdressing programme or workplace as the ability to mix hair colouring solutions in correct proportions; whereas a carpenter may use ratio to scale up a drawing or a model. Paradoxically, however, concepts such as the Key Competences for Lifelong Learning, while foregrounding the transversal quality of these skills, also emphasise the decisive impact of context, which always locates these generic skills in meaningful situations.

The tension between the general and the specific is not merely theoretical, but has significant consequences for decisions about programme design, teaching methods, materials and also approaches to assessment. Stand-alone literacy and numeracy programmes tend to be underpinned by a generic perspective in those areas, when teaching methods and materials, and also assessment strategies, focus on discrete examples of decontextualized knowledge and skill.

Integrated approaches, conversely, embed literacy and numeracy teaching and assessment within technical, vocational programme content, or related topics such as Induction or Health and Safety. Findings from the international literature review in Section Three, as well as the ETB stakeholder consultation in Section Four, provide examples of both approaches.

Table 5 below summarises the main features of generic and contextualised approaches, and the advantages and disadvantages of each, in relation to FET assessment at the higher levels.

Table 5: Generic and Contextualised Approaches to Literacy and Numeracy Assessment: Overview

	Generic		Contextualised	
	Pros	Cons	Pros	Cons
Initial assessment • stand-alone test paper or online • task probing generic skills	• Gives clear, often quantitative, result • Administratively efficient	• Gives a limited range of information • Success in this not always indicator of success in context	• Attractive to learner • Gives information on wider dimensions	• Requires advance preparation of materials • Advance analysis and planning of task needed
Ongoing assessment	• Gives clear, often quantitative, result • Administratively efficient	• Gives a limited range of information • Success in this not always indicator of success in context	• Embedded in real-life situation enhances motivation	• Places demands on tutors who may not be equipped • May get lost in assessment of technical content

Assessment strategies that probe literacy and numeracy as discrete skills have the advantage of clarity concerning the range of content assessed. The results from such assessments are often presented as a mark or a grade but also sometimes in the form of a diagnostic profile of strengths and weaknesses. However, such methods, which often use generic tests, either paper or online, may provide little or no information about the wider dimensions of competence such as fluency, independence or the ability to apply the skill in a real-life situation. These elements are more effectively assessed when these skills are demonstrated within the programme or workplace tasks, either naturally-occurring, or created especially for the purpose of assessment.

The disadvantage of relying on an integrated approach is that assessment of the technical content can eclipse the literacy and numeracy components, which may end up not being assessed at all.

The respective advantages and disadvantages of these approaches suggest literacy and numeracy assessment in FET at Levels 4–6, which is concerned with assessing the learner's competence in using those skills in real-life situations of study and the workplace, **needs to make most use of the contextualised approach to assessment**. On occasion, if the information needed about the learner's level and progress is most concerned with knowledge and skill, a method probing generic skills may be useful. For the most part, however, contextualised tasks, either created for the purpose of assessment, or carried out in the work of the programme in the formal learning setting or in workplace learning setting, are the most effective approach to providing the information needed about the learner's ability to apply the skill in an authentic setting.

To ensure that the important literacy and numeracy elements of a programme really are assessed, both initially and on an ongoing basis, it is essential for tutors, and anyone involved in teaching and assessment, to have a clear idea in advance of the specific literacy and numeracy skills embedded in the programme; and by extension, in the demands of the workplace. This requires an in-depth analysis of the literacy and numeracy content of the FET programme, and of the methods and materials used for teaching and assessment. The Guidelines document which accompanies this report includes tools to support programme managers and tutors to carry out this process at local level. The rationale for embarking on a national literacy and numeracy audit of FET programmes, and the system-level support structures needed to support this, is discussed in the subsequent sections.

5.2 What Purpose Should Assessment Serve?

The overall purpose of literacy and numeracy assessment in the context of FET programmes at Levels 4, 5 and 6 is to support teaching and learning, so that learners can reach their learning goals.

To revisit some aspects of definitions and purposes introduced in Section 2.3.2 above, in the context of the new Guidelines, assessment processes carried out at different stages fulfil more specific purposes:

Initial Assessment

- Determines whether the learner is likely to need literacy or numeracy support to manage the demands of their chosen programme.
- Informs placement decisions about the best learning environment for their needs.
- Identifies those specific learning needs and the range of supports to be provided.

This process applies both to learners who have been formally diagnosed with a learning difficulty, and those who have not, but who nevertheless need help with literacy and numeracy.

Ongoing assessment has the overall purpose of monitoring the learner's progress, specifically in the literacy and numeracy required to manage the demands of the programme. The practical implementation of this formative assessment combines the two complementary approaches described in Section Two above:

- Informal formative assessment, an informal feedback loop between learner and teacher which forms part of the day-to-day communication between them.
- Formal formative assessment which involves periodic, purposeful reviews, when progress and difficulties are foregrounded and recorded, and action consciously planned.

Although informal formative assessment of literacy and numeracy usually takes place in the context of the technical programme content, it is important to make explicit reference to the literacy and numeracy content from time to time, especially in relation to those areas identified as problematic at the initial assessment stage.

Formal formative assessment of literacy and numeracy, especially those items identified as problematic in the initial assessment, should be carried out periodically in FET programmes at Levels 4, 5 and 6.

5.3 Methods and Approach

Stakeholder consultation shows that there are common practices which can provide a foundation for a general strategy, around which individualised assessment tools can be constructed.

The variety of approaches is evident in terms of diversity of programmes, learning contexts, target groups, geographical features, supports and resources, staffing and recruitment procedures. It is therefore unrealistic to aim for a one-size-fits-all assessment method that will work in all FET contexts. That said, it is possible to provide a standard framework, which individual ETBs and programmes can tailor to local needs.

5.3.1 Initial Assessment

Initial assessment of FET learners' literacy and numeracy skills may be carried out, or at least initiated, during one or more of the following:

- **Open day** for ETB, programme or centre, organised to promote FET to the public.
- **Group meeting** of new learners who have enroled on a specific programme.
- **Learning to Learn** programme providing a session, a day or several days' introduction to study skills.
- **Interview** with new learner, either before or after their enrolment, attended by programme coordinator and sometimes tutor and/or resource staff.
- **Induction Programme** with individual learner or group, which may take place either before or after enrolment.

The purpose of initial assessment of FET learners' literacy and numeracy skills is to support learners' participation in the programme of their choice, not to exclude them from it. However, sometimes the individual's literacy and numeracy needs may be greater than can realistically be supported within the programme of their choice.

- **Before enrolment**, initial assessment may be used to identify a minimum standard for entry. Applicants who do not meet the standard may be provided with extra support to facilitate their participation; or, if necessary, referred to an alternative programme in FET, or to the adult literacy service.
- **After enrolment**, the focus is on identifying the learner's support needs, to maximise their progress and success in the programme.

Figure 25: Overview of Initial Assessment Strategy

Overview of Initial Assessment Strategy

- Initial Interview and a choice of the following methods:
  - Skills demonstration (performance task) of generic literacy/numeracy.
  - Skills demonstration (performance task) of specific literacy/numeracy tasks related to the programme.
  - Skills demonstration (performance task) of literacy/numeracy in a context relevant to the centre e.g. Induction or Learning to Learn session or programme.

When learners are advised that their programme of choice is not the best option for them at that time and offered an alternative, or referred for support to the adult literacy service, decisions by programme managers and other assessors should be supported by robust evidence. The initial assessment process generates objective and transparent evidence which provides information for the learner, and for other FET or adult literacy educators who will work with them.

Robust initial assessment procedures will provide evidence to support those judgements.

Depending on the roles and responsibilities of staff in each centre, initial assessment may be carried out by one or more of the following:

- Programme coordinator
- Guidance staff
- Resource staff
- Literacy tutor
- Course tutor

As noted earlier, the Support to Apprentices programme provides a dedicated team[80] who plan, carry out and follow up initial assessments. However, as most programmes do not have the benefit of this resource, it is important for managers and coordinators to clarify in advance which staff are responsible for the various tasks involved in planning, implementing and recording assessment processes and outcomes. The accompanying Guidelines document includes methods and tools to support planning for these tasks.

5.3.2 Ongoing Assessment

Ongoing assessment of literacy and numeracy in FET Programmes at Levels 4, 5 and 6 involves focusing on skills which are embedded in the main subject content, rather than being the principal focus of the teaching and learning. This vocational content provides a rich context for observing learners' literacy and numeracy in action, in a meaningful situation.

In order to carry out ongoing assessment of learners' competence in the literacy and numeracy elements of the FET programme, a starting point, or base line is identified by combining:

- The literacy and numeracy content embedded in the programme.
- The learner's literacy and numeracy needs identified during initial assessment.

Ongoing assessment of learners' progress in the technical and vocational programme content often takes the form of dialogue between tutor and learner: checking, confirming and refining the learner's understanding and application of the work. This **formative assessment** is an integral part of the teaching and learning process.

The Performance Task method, involving observation of the learner's performance of a real-life or constructed task, together with discussion, is the assessment strategy of choice for both initial and ongoing assessment of literacy and numeracy in FET.

This approach to ongoing assessment of literacy and numeracy in FET programmes should be a collaborative effort, involving the key people responsible for planning, implementing and recording the results of assessment.

FET programme coordinators, tutors and resource staff all have a role in explicitly monitoring learners' progress in the literacy and numeracy learning goals identified during initial assessment; and also, in supporting learners in meeting any new demands that emerge later.

Depending on local systems and the resources available in specific programmes and centres, the functions involved in ongoing assessment of literacy and numeracy may be carried out by different people. For example,

- Programme co-ordinators may participate in a literacy/numeracy audit, which identifies in advance the literacy/numeracy content of the programme.
- Tutors observe learners' work on an ongoing basis and their progress on the literacy and numeracy gaps identified during initial assessment. As subject experts, some tutors may also want to have a role in the literacy/numeracy audit.
- Resource staff and/or adult literacy tutors may assist programme tutors in monitoring and periodically recording learners' progress in literacy and numeracy. They may also assist with the literacy/numeracy audit.

However, the precise distribution of these tasks can vary from place to place. Where programmes are resourced by a dedicated support team, most of these processes are carried out by expert staff who work alongside tutors to assess learners' skills and provide ongoing literacy or numeracy support, as it is needed. Otherwise, ETBs, programmes and centres decide who carries out the various functions involved.

5.3.3 Recording Outcomes of Initial and Ongoing Assessment

Assessment outcomes for initial and ongoing literacy and numeracy assessment in FET are recorded using two recording tools:

Individual Learner Plan (ILP) for the main outcomes of initial assessment.

Individual Progress Tracking Form, for the main outcomes arising from ongoing assessment.

80 Support to Apprentices Programme, which provides assessments and supports for Craft apprenticeships.

The Individual Learner Plan (ILP) (Appendix 7) and Individual Progress Tracking Form (Appendix 8) facilitate the recording of key aspects of learners' literacy and numeracy needs, and their progress in working towards those learning goals. Evidence of progress recorded here may be generated by observation of the learner's work on a specially designed performance task, and/or by tasks involved in the normal course of their programme.

The Individual Learner Plan and the Individual Progress Tracking Form are teaching tools only. They are not designed for accreditation or statistical purposes and are used only by the learner and the tutor and any managers or resource staff who support their learning.

5.3.4 Connecting with the QQI Assessment Brief

An important element of the QQI programme validation process involves preparation of an assessment brief, which sets out the Minimum Intended Programme Learning Outcomes (MIPLOs) and also, strategies by which the MIPLOs will be assessed.

The process of identifying and assessing literacy and numeracy content of Level 4, 5 and 6 programmes may be carried out alongside the development of the QQI assessment brief for the programme.

By identifying literacy and numeracy learning outcomes at an early stage, programme managers and tutors will be equipped to support learners in managing the programme content and assessment. To coordinate this, tutors, programme managers and learners will meet periodically during the learning journey.

Figure 26: Overview of Initial and Ongoing Literacy/Numeracy Assessment Processes in FET

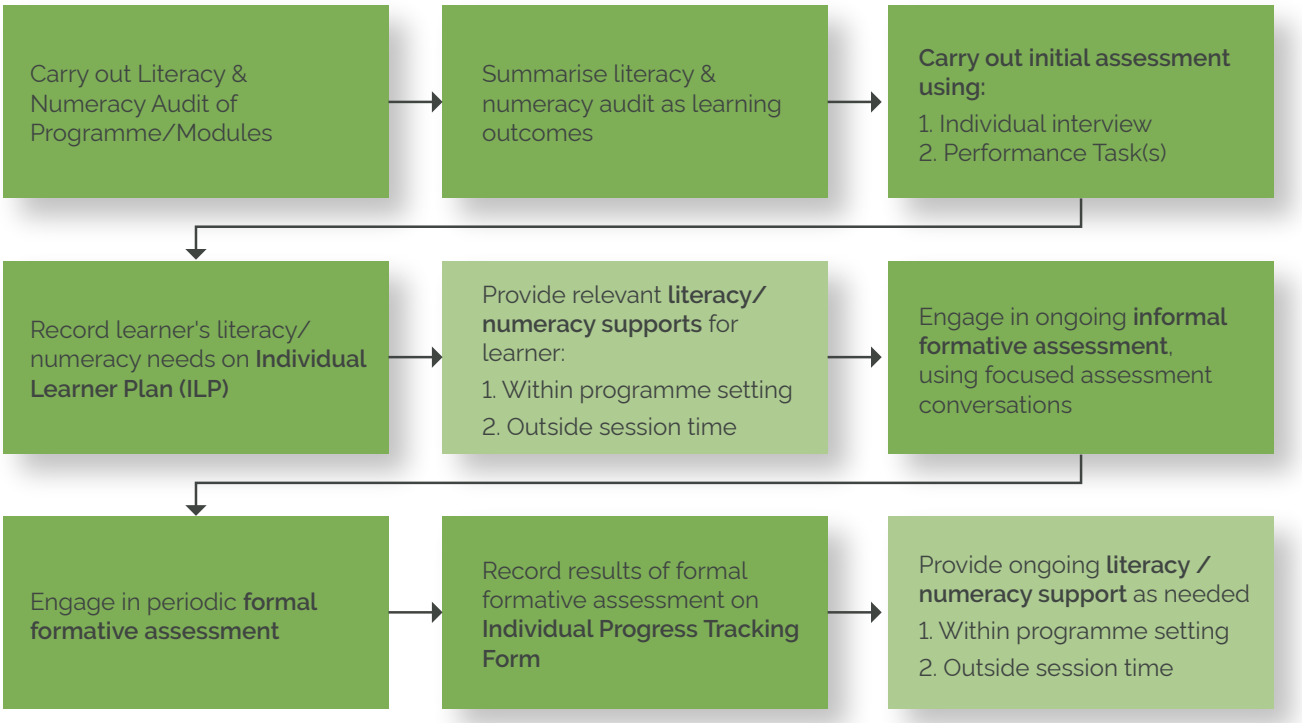
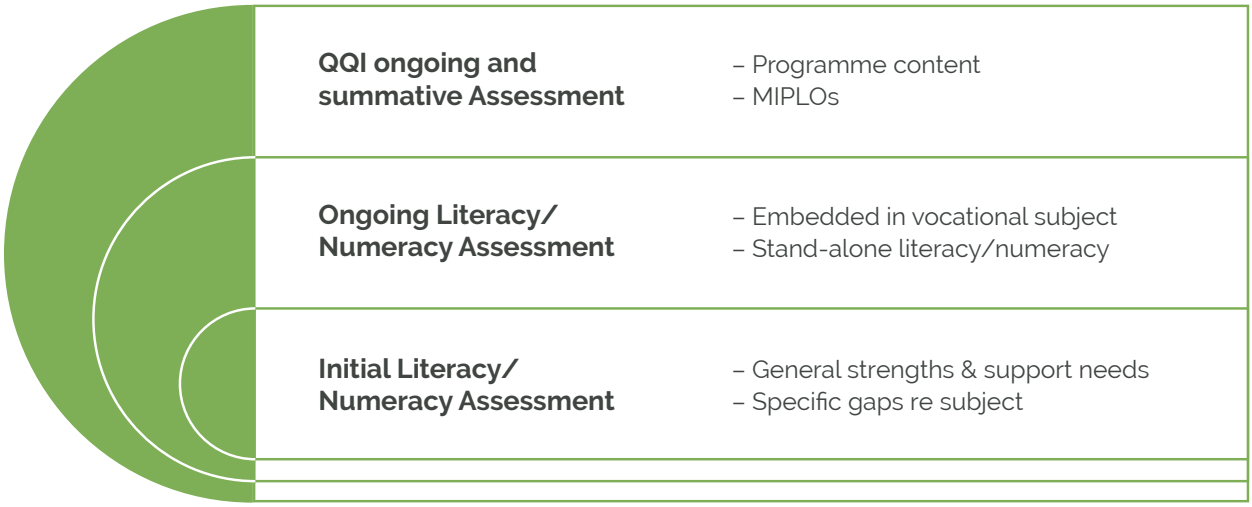


Figure 27: Connection between QQI Assessment and Literacy/Numeracy Assessment



Planning for assessment is an important stage of both initial and ongoing assessment. **The design of the assessment brief is an ideal opportunity for tutors, resource staff and managers to identify and connect the literacy and numeracy content within individual modules, across the whole programme.**

This variety of learning contexts provides a rich opportunity for tutors teaching different modules to collaborate in recognising common ground. They can use this information to reinforce both teaching, and assessment of literacy and numeracy skills that occur across several different learning contexts.

5.4 System-Level Resources to Support Literacy and Numeracy Assessment in FET

The programme-wide planning processes described above requires system-level supports to ensure consistency and coherence.

5.4.1 Literacy/Numeracy Framework of Levels

One of the most significant structural features of all the international assessment systems reviewed for this study, is the support provided for planning, teaching and assessment in the form of national frameworks of levels that describe, in detail, a range of transversal competences considered important in education and daily life. Although there are differences in focus between these frameworks,[81] they cover much the same ground as the eight European Key Competences for Lifelong Learning. Furthermore, they all include detailed definitions of literacy and numeracy at several levels, ranging from basic to advanced.

It is important to note that all of these national frameworks of Core and Key Skills levels are separate from, though aligned with, the national frameworks of qualifications in each country.

As noted earlier, definitions of the eight EU Key Competences are level-free. However, the 2018 Recommendation which updates the Key Competences framework specifically encourages Member States to develop:

> "reference material and tools such as:
> 6.1. where appropriate, frameworks for specific competences which facilitate development and assessment of competences;
>
> 6.2. evidence-based guidance material on new forms of learning and supportive approaches;"[82]

Given that all Member States have already developed national qualifications frameworks, the Recommendation clearly assumes that these 'frameworks for specific competences' will be separate from national qualifications frameworks; and that it is up to individual Member States to create these to 'facilitate development and assessment of competences.' As qualifications frameworks are designed to support national certification, rather than teaching, learning and formative assessment, this is not surprising.

Unlike all the countries represented in this study, and most other European Member States, Ireland,

81 See Appendix 6 for content summary of Core, Key, Functional, Essential or Employability Skills frameworks.
82 European Commission (2018) op. cit., p. 5.

at present, has no national core skills framework designed to facilitate development and assessment of competences across all levels and sectors of education and training. The National Council for Curriculum and Assessment has developed two related Key Skills frameworks which are designed to support the integration of key skills into teaching and learning[83] in post-primary schools. Both include elements of literacy, though only the Junior Cycle framework contains numeracy.

One consequence of the lack of an overarching, national key/core skills framework in Ireland is that in order to 'facilitate development and assessment' of literacy and numeracy, programme developers, managers and tutors working in the field of literacy and numeracy, are obliged to rely on the de facto national literacy and numeracy levels as defined by components of communications and mathematics QQI awards, usually at Levels 1, 2, 3.

The pitfalls of using a single assessment method or structure to support multiple purposes, are well-documented.[84] The backward shadow which assessment can cast on teaching, when the learning experience is driven by the requirements of summative assessments, provided the original impetus for the Assessment for Learning movement. This sought to create formative assessment procedures that would have a positive, rather than negative, impact on teaching and learning.

These conceptual considerations, in addition to the findings of the literature review, the policy recommendations from the Key Competences Recommendation and the views of practitioners, all point in the same direction:

There is scope for the development of a literacy and numeracy framework which includes the wider dimensions of competence, designed for use across all education and training sectors and levels.[85]

5.4.2 Literacy/Numeracy Audit of Programmes and Activities

Such a framework would fulfil many useful functions. It would be a resource for curriculum developers who need to analyse the literacy and numeracy content of their programmes; for tutors, in examining the demands of their teaching methods and materials; for learners, by providing a transparent summary of the range of language and mathematical demands their programme will present. In common with how these frameworks are used in other countries, a national framework of literacy and numeracy levels that sits alongside the National Qualifications Framework and is aligned to it, would guide the planning and co-ordination of assessment activities, both for initial and ongoing assessment. Indeed, such a resource is an essential tool in achieving consistency across the whole FET system, when identifying prospective learners' starting level and precise support needs, and when monitoring their progress on an ongoing basis.

Some FET practitioners are already implementing such an approach, using tools devised at a local level. The work of the Support to Apprentices Group, for example, draws on an analysis of the mathematical content of craft apprenticeships. In some ETBs, practitioners in the adult literacy service have drawn up their own literacy and numeracy frameworks which complement the QQI levels by defining detailed signposts of learning and progress.

To ensure consistency, a national, system-level resource is needed. This should encompass basic literacy and numeracy, and include the most frequent demands in language and mathematics that learners will encounter in all levels of FET programmes. In order to identify these, it will be necessary to analyse the literacy and numeracy content of FET programmes. It is therefore recommended that SOLAS, ETBI and the DES, supported by key stakeholders:

Carry out on a national literacy and numeracy audit, comprising a comprehensive analysis of the literacy and numeracy content of existing modules and programmes; and publish the outcomes as a literacy and numeracy FET handbook, for use by programme developers, learners, tutors and employers.

83 The Senior Cycle framework comprises five Key Skills: Information Processing, Communicating, Being Personally Effective, Working with Others, Critical and Creative Thinking. https://www.ncca.ie/en/resources/senior-cycle-key-skills-framework. Junior Cycle Key Skills are: Communicating, Staying Well, Managing Information and Thinking, Managing Myself, Working with Others, Being Creative, Being Literate, Being Numerate. https://www.ncca.ie/en/junior-cycle/framework-for-junior-cycle

84 Black, P and Wiliam, D. (1998) "Inside the Black Box: Raising Standards through Classroom Assessment," Phi Delta Kappa, October, 1998.

85 Wider dimensions are referred to in the Council of Europe's Common European Framework of Reference for Languages (CEFR). https://www.coe.int/en/web/portfolio/the-common-european-framework-of-reference-for-languages-learning-teaching-assessment-cefr-

5.5 Important Considerations when Implementing FET Assessment Guidelines

The development of National Guidelines designed to support literacy and numeracy assessment in FET provides a significant resource for programme developers, managers, tutors and learners. The methods and tools supplied should facilitate the gathering of information that will enhance the learning experience for learners.

Once the assessments are carried out, everything depends on what happens next. However rich the information generated, without relevant learner supports and the structures on which these are built, learners may not reach their full potential.

It is therefore important to emphasise that, in accordance with the relevant quality assurance requirements, all FET providers offer reasonable accommodation to learners with disabilities. The nature of those accommodations will vary depending on the identified needs of individual learners.

5.5.1 Accommodations and Supports at Second Level and in FET

Some younger learners entering FET programmes at Levels 4, 5 and 6 have had the benefit of significant learning support in school, including scribes and other accommodations. Once they enter FET, some of those learners may struggle with learning generally and particularly with literacy and numeracy, and will require access to similar supports in their FET programme,

The Further Education and Training Strategy 2020-2024 recognises the importance of a learner-centred ethos and also acknowledges the substantial variations in the nature and level of support across different programmes, which are usually as a result of legacy arrangements and approaches. The forthcoming plan pledges to address the need for consistent and integrated support to be offered to all learners in all FET settings.

With a consistent support to learners approach, support is an integral part of programme planning, coordination and delivery for all learners. Support is something that is readily available in the learning setting and not dependent on a diagnosis.

5.5.2 Technology Enhanced Learning

It is also worth considering the advantages and disadvantages of foregrounding technology as an answer to learners' difficulties with reading or writing. Technological advances benefit all learners and should be considered as a complementary support. However, using technology is not an alternative to learning to read, write and use of number to the required standard and in the relevant situation.

5.5.3 Universal Design for FET (UD4FET)

UDL provides flexibility in the way information is provided, in the way learners are engaged, and in the way learners respond, or are facilitated to demonstrate knowledge and skills. It is an approach that has been endorsed at policy level (DES, 2019:29). SOLAS and partners are working together to document Examples of Good UDL Practices Already in Place in FET and to produce national guidelines. This project has had broad consultation and engagement with FET practitioners and decision makers, and has benefited from the valuable oversight and guidance of the Universal Design for Learning (UDL) for FET National Advisory Committee, which brings together a wide range of relevant expertise.

Universal design for learning has the potential to further enhance provision for learners in FET, including those with unmet literacy or numeracy needs.

5.5.4 Examples of Supports Across FET

In some FET settings, significant resources and supports are already in place to help learners who have difficulty handling the literacy or numeracy of their programme. The work of the Support to Apprentices Group, which carries out in-depth assessments structured around the craft content and provides follow-up support for learners and tutors, has already been described above. In addition, some learners in other programmes who have been diagnosed with a learning difficulty are able to access supports.

In keeping with legislative and quality assurance requirements, the provision of supports across FET remains a priority and the sector is continually looking at ways to broaden access, participation and completion of all learners.

It was broadly agreed that resources need to be available, in a consistent manner, for learners who need support across the whole FET system.

There was also agreement on benefits of additional professional assessments, where these are needed, to provide a better understanding of a learner's needs, the nature of his/her difficulties, and to inform relevant interventions.

A system-level response is required to ensure that all strands of the diverse FET system have access to the resources required to provide the support their learners need to succeed. As mentioned above, forthcoming guidelines on Universal Design for Learning in FET will contribute to this required system-level response.

5.5.5 Supporting the Adult Literacy Service

The Adult Literacy Service is increasingly important in supporting tutors and learners in the higher level programmes of FET. **The role of literacy and numeracy tutors is no longer confined to working with learners on FET programmes at Levels 1, 2 and 3. Rather, this has expanded to provide assistance to learners who are having difficulties with Level 4, 5 or even Level 6 programmes because of the literacy and numeracy demands embedded in them.** Sometimes, tutors from the Adult Literacy Service work on a one-to-one basis with learners who need help. In other cases, they assist tutors with advice and materials. At times, prospective Level 4 or 5 learners are referred to the Adult Literacy Service as an alternative to the programme they originally chose, because the initial assessment showed that they need more help than the subject expert FET tutor could realistically provide while teaching the vocational programme content.

As noted in Section Three, practitioners report that in recent years, since the upturn in the economy and the departure of more advanced FET learners into the workforce, the profile of learners accessing FET has changed. More people entering programmes at Levels 4, 5 and 6 need help with reading, writing and number than in previous years; and, as Section Two above showed, the range of skills some of them need help with is sometimes very basic.

As it is the spirit of FET to provide inclusive education, the entry of people with greater learning needs is to be welcomed. This offers a renewed opportunity not only for the individuals themselves, but also for the education system to provide a positive and effective learning experience for people who did not get this first time around.

However, this also represents a challenge to the adult basic education service, whose resources are stretched to the limit in providing for their own literacy and numeracy learners and increasingly, those who are enroled in higher level FET programmes as well.

Literacy and numeracy assessment in FET programmes at Levels 4, 5 and 6, and the actions taken as a result of those assessments, clearly increase the workload and demands on the Adult Literacy Service.

ETBs should continue to track, support and resource the extra demands placed on the adult literacy service as a result of its increased role in supporting higher FET learners.

5.5.6 Role and Expectations on Tutors and Other Staff

Implementation of literacy and numeracy assessment in FET programmes at Levels 4, 5 and 6 requires some reflection on who is responsible for actually carrying out the different processes involved, at the different stages described above. This is more complicated than the systems operating at Levels 1, 2 and 3. In those adult basic education contexts, initial assessment is always carried out by the ALO or a resource worker, and ongoing assessment forms part of the work of trained literacy and numeracy tutors. In practice, this is usually a single tutor for the duration of the programme.

In FET Programmes at Levels 4, 5 and 6, many more staff are involved in recruitment, initial assessment and delivery of the programme and most of them are subject experts, rather than specialists in literacy or numeracy. It is therefore important to clarify what can, and should, reasonably be expected of tutors and other front-line staff; and what kind of internal supports and resources are needed to ensure that effective literacy and numeracy assessment in FET programmes works smoothly.

Figure 26 summarises the processes involved in planning, implementing, recording – and acting on – assessment of literacy and numeracy in the complex context of FET programmes at Levels 4, 5 and 6. It is worth asking at this point, how much of this can realistically be carried out in individual centres by subject tutors; what kind of specialist support from staff with literacy and numeracy expertise is needed: and what formal structures are needed to support these processes.

Some of the activities with which subject tutors might engage include:

- Taking part in professional development (PD) in literacy and numeracy content of their programmes.

- Learning tips for teaching key words and phrases of their subject area.
- Highlighting key words during teaching and informal formative assessment.
- Providing input to literacy/numeracy audit of their subject.
- Assisting in recording periodic results of formal formative assessment.

When it comes to recording and teaching, subject matter experts may, or may not, see their role as teachers and assessors of any literacy or numeracy demands that might arise in the course of their work:

> "Tutors have different attitudes in relation to their perceived role. From: don't see themselves as literacy or numeracy tutors; to 'Oh, you didn't do ratios in school, but we're going to do it now.'"
> (PLC Manager)

Professional Development inputs can support FET subject tutors in developing strategies to make their sessions more accessible to all students.[86] However, it is important to stress that in the context of FET programmes at Levels 4, 5 and 6, tutors have the responsibility to facilitate learners' achievement of a QQI award. If their role is to be expanded to include the provision of literacy and numeracy support within the context of their vocational session, they will need tailored initial training and more resources.

These could include:

- Resource staff on site whose main role is to support subject tutors in navigating the demands of monitoring the literacy and numeracy of their own area, both in relation to teaching and assessment.
- Provision of literacy and numeracy support to learners tailored to the setting.
- Provision of Professional Development opportunities for subject teachers.
- Administration and record-keeping to support identification and monitoring of literacy and numeracy needs, where these arise.

Further clarification and negotiation concerning the role of subject tutors in carrying out literacy and numeracy assessment in FET programmes is needed, as well as a comprehensive analysis of the range of resources required to ensure that assessment is carried out effectively. In large centres, this may need to be implemented by a resource team, such as the approach already implemented by the Support to Apprentices Group. It may be worth considering whether this model could be adapted for FET settings outside the apprenticeship programmes.

ETBs should continue to influence and facilitate dedicated literacy and numeracy support for all centres, and all programmes where FET is delivered at Programmes Level 4, 5 and 6.

5.6 Conclusion

In recognition of the fact that assessment of literacy and numeracy does not happen in a vacuum, this study has concluded with an overview of some of the challenges and risk factors. The effectiveness of assessment measures, and the meaning that can be inferred from them, are influenced by myriad factors, only a few of which are directly related to assessment. Assessment is woven into, and influenced by, individual and system level factors that must be addressed to ensure meaningful process.

86 Jones, Alison (2017) Ideas for Integrating Literacy in Craft Apprenticeships and Courses," Galway: Galway and Roscommon Education and Training Board.

References

Agored Cymru (2015) "Essential Skills Wales: Suite of Qualifications Handbook," Bangor: Agored Cymru. http://www.agored.cymru/Units-and-Qualifications/Qualification/127624

AONTAS (2020) NATIONAL FURTHER EDUCATION AND TRAINING (FET) LEARNER FORUM 2019 LEARNER REPORT. https://www.aontas.com/assets/resources/AONTAS-Research/2019%20Learner%20Report%20-%20FINAL.pdf

Assessment Reform Group (2002) "Assessment for Learning: 10 Principles: Research-based principles to guide classroom practice," Nuffield Foundation. https://www.nuffieldfoundation.org/assessment-reform-group

Australian Government: Department of Employment, Skills, Small and Family Business (2015)"Core Skills Framework," https://www.education.gov.au/australian-core-skills-framework

Australian Government: Department of Employment, Skills, Small and Family Business. (2015) "Training Package Products Policy," Canberra: Commonwealth of Australia.

Australian Government "Standards for Registered Training Organisations (RTOs) 2015 made under subsection 185(1) and subsection 186(1) of the National Vocational Education and Training Regulator Act 2011 (the Act)" Federal Register of Legislation. https://www.legislation.gov.au/Details/F2017C00663.

Black, P. & Wiliam, D (1998). Assessment and Classroom Learning. Assessment in Education 5(1) pp. 7-71.

Black, P and Wiliam, D. (1998) "Inside the Black Box: Raising Standards through Classroom Assessment," Phi Delta Kappa, October, 1998.

Carretero Gomez, S, Vuorikari, R., Punie, Y (2017) "DigComp 2.1The Digital Competence Framework for Citizens with eight proficiency levels and examples of use", Joint Research Group/ EU Science Hub/ European Commission Luxembourg: Publications Office of the European Union. http://bit.ly/2MHEtM6

CEDEFOP Glossary of Key Terms. https://www.cedefop.europa.eu/en/events-and-projects/projects/validation-non-formal-and-informal-learning/european-inventory/european-inventory-glossary

Central Statistics Office/ An Phríomh-Oifig Staidrimh (2013) "Survey Results from Ireland for the OECDs Programme for the International Assessment of Student Competencies," Dublin: Stationery Office. https://www.cso.ie/en/methods/education/piaac/

Council of Europe (2018) "Reference Framework of Competences for Democratic Culture Vol 3: Guidance for Implementation," Strasbourg: Council of Europe Publishing. https://rm.coe.int/prems-008518-gbr-2508-reference-framework-of-competences-vol-3-8575-co/16807bc66e

Council Recommendation of 22 May 2018 on key competences for lifelong learning. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_.2018.189.01.0001.01.ENG&toc=OJ:C:2018:189:TOC

Council Recommendation of 18 December 2006 on key competences for lifelong learning (2006/962/EC). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32006H0962

Department for Education (2017) "Subject Content: Functional Skills English" London: DfEd. https://www.gov.uk/government/publications/functional-skills-subject-content-english

Department for Education (2017) "Subject Content: Functional Skills Mathematics" London: DfEd. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/682834/Functional_Skills_Subject_Content_English.pdf

Department of Education and Skills (2016) "Action Plan to Expand Apprenticeships and Traineeships in Ireland 2016 - 2020," Dublin: Stationery Office.

Employment and Social Development Canada

(2016) "National Occupational Analysis, Hairstylist", Montreal: Labour Market and Integration Directorate, Trade and Apprenticeship Division. http://www.red-seal.ca/trades/hairstylists/2016n.4.1_.4v.2rv.3.2w-eng.html

ICF (2018) "Integrating Literacy and Numeracy: Final Report," Dublin: SOLAS, An tSeirbhis Oideachais Leanúnaigh agus Scileanna/ Further Education and Training Authority. https://www.solas.ie/f/70398/x/2176ab65bb/integrated-literacy-and-numeracy-final-report.pdf

Jones, Alison (2017) "Study and Learning Handbook for Further Education and Training Courses," Dublin: SOLAS/ETBI.

Jones, Alison (2016) " Ideas for Integrating Literacy in Craft Apprenticeships and Courses," Dublin: SOLAS/ETBI.

Kett, M. (2015) "Review of the Wider Benefits of Learning," Ireland: ETBI.

McGuinness, S., Bergin, A., Kelly, E., McCoy, S., Smyth, E., Whelan, A., Banks, J. (2014) "Further Education in Ireland: Past, Present and Future," ESRI Research Series No 35 Dublin: ESRI/SOLAS. https://www.esri.ie/publications/further-education-and-training-in-ireland-past-present-and-future

OECD (2016) "The Survey of Adult Skills: Reader's Companion, Second Edition," OECD Skills Studies, OECD Publishing, Paris. https://www.oecd-ilibrary.org/education/the-survey-of-adult-skills_9789264258075-en

Pearson Edexcel (2016) "Pearson Edexcel Level 1 Certificate in Essential Skills – Communication Specification Levels 1 & 2," Harlow: Pearson Education Ltd.

Pearson Edexcel (2016) "Pearson Edexcel Level 1 Certificate in Essential Skills – Application of Number Specification Levels 1 & 2," Harlow: Pearson Education Ltd. https://qualifications.pearson.com/en/qualifications/essential-skills-northern-ireland.html

Quality and Qualifications Ireland (2016) "A Guide to Frameworks," Dublin: https://nfq.qqi.ie/assets/qualifications_frameworks.pdf

Quality and Qualifications Ireland (2013) "Quality Assuring Assessment: Guidelines for Providers," Dublin: QQI. https://www.slideshare.net/ibrahimkhleifat/quality-assuring-assessment-guidelines-for-providers-revised-2013-134471070

Scottish Executive (2014) "An Adult Literacy and Numeracy Curriculum Framework for Scotland," Edinburgh: Learning Connections Scotland.

Scottish Qualifications Authority (2014) Scottish Core Skills Framework Unit Specifications, Communications and Numeracy Levels 3 - 6. https://accreditation.sqa.org.uk/accreditation/Qualifications/Workplace_Core_Skills/Workplace_Core_Skills

Scottish Qualifications Authority (2014) Assessment Resource Pack, Level 3 Communication, Glasgow: SQA. https://accreditation.sqa.org.uk/accreditation/Qualifications/Workplace_Core_Skills/Workplace_Core_Skills

SOLAS (2014) "Further Education and Training Strategy 2014 – 2019," Dublin: SOLAS/An tSeirbhis Oideachais Leanúnaigh agus Scileanna/ Further Education and Training Authority. https://www.solas.ie/f/70398/x/920e2fa0b6/fetstrategy2014-2019.pdf

SOLAS (2017) "Corporate Plan 2017 – 2019 SOLAS," SOLAS/An tSeirbhis Oideachais Leanúnaigh agus Scileanna/ Further Education and Training Authority. https://www.solas.ie/f/70398/x/0e99a88016/solascorporateplan.pdf

SOLAS (2019) "Initial and Ongoing Assessment of Adult Literacy and Numeracy at NFQ Levels 1, 2 and 3 - Guidelines, Toolkit and Research Report," Dublin: SOLAS. https://www.solas.ie/f/70398/x/5451e6dd60/initial-and-ongoing-assessment-of-adult.pdf

SOLAS (2018) "Further Education and Training Services Plan" Dublin: SOLAS An tSeirbhis Oideachais Leanúnaigh agus Scileanna/ Further Education and Training Authority. https://www.solas.ie/f/70398/x/47454f2b77/15083_solas_fet_services_plan_2019_web.PDF

Tertiary Education Commission (2015) "Code of Good Practice for New Zealand Apprenticeships." https://www.tec.govt.nz/assets/Publications-and-others/The-code-of-good-practice-for-new-zealand-apprenticeships.pdf

Tertiary Education Commission Te Amurangi Matuaranga Matua (2008)" New Zealand Learning Progressions for Adult Literacy," Wellington: Tertiary Education Commission. https://www.tec.govt.nz/assets/Publications-and-others/The-code-of-good-practice-for-new-zealand-apprenticeships.pdf

US Department of Education Division of Adult Education and Literacy (Dec 2017) "Technical Assistance Guide for Performance Accountability Under the Workforce Innovation and Opportunity

Additional links

Act -National Reporting System for Adult Education." https://www.nrsweb.org/policy-data/nrs-ta-guide

US Employability Skills checklist. https://cte.ed.gov/initiatives/employability-skills-framework

Ireland

ETBI: https://www.etbi.ie/

Department of Education and Skills. https://www.education.ie/en/Schools-Colleges/Services/Further-Education-and-Training/Vocational-and-Training-Opportunities-Scheme-VTOS-/

Department of Education and Skills, BTEI. https://www.education.ie/en/Schools-Colleges/Services/Further-Education-and-Training/Back-to-Education-Initiative-BTEI-/

Quality and Qualifications Ireland https://www.qqi.ie/

Generation Apprenticeship https://apprenticeship.ie/

NCCA Key Skills Frameworks

NCCA Junior Cycle Key Skills. https://www.ncca.ie/en/junior-cycle/framework-for-junior-cycle

NCCA Senior Cycle Core Skills Framework. https://www.ncca.ie/en/resources/senior-cycle-key-skills-framework

Northern Ireland

Essential Skills. https://www.nidirect.gov.uk/articles/essential-skills

Canada

Canada Essential Skills Government of Canada: Tools, Assessment and Training Support. https://www.canada.ca/en/employment-social-development/programs/essential-skills/tools.html

Canada Essential Skills Fact Sheets. https://www.jobbank.gc.ca/essentialskillsresults/73

Canada Online Indicator. https://www.canada.ca/en/employment-social-development/programs/essential-skills/tools/online-indicator.html

Canada Essential Skills Profile. https://www.jobbank.gc.ca/essentialskillsresults/73

Canada Self-Assessment Checklist. https://www.canada.ca/en/employment-social-development/programs/essential-skills/tools/self-assessment-trades.html

New Zealand

Adult Literacy and Numeracy Assessment Tool: https://assess.literacyandnumeracyforadults.com/Login.aspx

Australia

Core Skills Profile. https://www.acer.org/au/cspa

Australian Core Skills Framework Assessment Tasks. http://www.precisionconsultancy.com.au/acs_framework

USA

CASAS Assessments. https://www.casas.org/education-providers

Appendices

1. Interview/Group Consultation Schedule
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Appendix 1:
Interview/Group Consultation Schedule

ETB Consultation: FET Adult Literacy and Numeracy Assessment, Programme Levels 4–6

Discussion Topics - Participants may want to add to these

1. In your experience, to what extent do FET students following programmes at Levels 4, 5, 6 experience literacy and/or numeracy difficulties?
2. Give examples of the specific type of literacy/numeracy obstacles that arise, in the context of your FET programmes and students.
3. When these difficulties arise, what impact do they have on the student?
4. In the context of FET Levels 4–6, what do you understand by the terms
   - Literacy
   - Numeracy?
5. At the moment, what is the current system(s) in your ETB for initial assessment of the literacy and numeracy of FET students following Levels 4–6 programmes? i.e. around the time they enter the programme, or before.
6. How is FET students' literacy and numeracy assessed on an on-going basis? Are these skills assessed? Who does this?
7. In your view, what should literacy/numeracy assessment accomplish, in the context of FET Levels 4–6?
8. In the context of your ETB, what would be the best way of organizing this? Take into account the structure of FET provision in your ETB and any logistical factors, e.g. geographical etc.
9. What supports would you find useful to include in FET Assessment Guidelines for Levels 4–6?
10. Any other comments?

Appendix 2:
Analytic Framework

Area	Topic
Conceptual	Concepts of literacy and numeracy Generic and contextualised approaches Concept of competence
Contextual	Providers Programmes Content of assessment
Operational	Purposes of assessment: initial and ongoing Assessment strategies: integrated and stand-alone Assessment methods Resources to support assessment process Roles and responsibilities Uses of data generated by assessment process National structures and tools to support assessment
Recommendations for Guidelines	Assessment strategy Methods and materials Recording assessment results Challenges and risk factors

Appendix 3:
Assessment for Learning[87]

Assessment for Learning (AfL) is a highly structured approach to formative assessment which is based on the idea that assessment can have a positive, as well as a negative, impact on the process and outcomes of teaching and learning. One important research project which synthesised over 250 other studies, mostly of AfL in schools, confirmed that this conscious, systematic use of formative assessment can improve the outcomes of learning, as well as enhancing learners' motivation and self-esteem. The AfL approach uses assessment to support

> "the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there."[88]

Assessment for Learning may be carried out:

- On a day-to-day basis, giving specific and finely tuned feedback to learners.
- Periodically, as part of a progress review.
- Transitionally, when the learner reaches a bridge to another learning experience.

The key principles of Assessment for Learning are as follows:

- Put learning at the centre of the assessment process.
- Involve learners in their own assessments.
- Set clear goals and criteria for success.
- Track progress in relation to goals and criteria.
- Give immediate feedback to improve learners' progress.
- Use feedback to strengthen the teaching strategy.
- Involve learners in reflecting on their own learning.

Practical assessment strategies used to support teaching and learning include:

- Carefully structured questioning techniques.
- Learners' self-assessment.
- Learners' peer-assessment.
- Observation of the learner's performance of a real-life task, or on a constructed task which replicates a real-life situation.
- Creating portfolios and learning logs.
- Group work.
- Discussion.
- Project work.

Dialogue is central to the practical implementation of these principles and strategies, involving learners in negotiating their own learning goals and signposts of progress. Feedback to learners is based on concrete evidence and shapes both the teaching and learning process by skilful use of the scaffolding strategy described above.

Although most of the research into the outcomes of AfL was conducted in the context of teaching and learning in schools, there is scope to expand its use in adult education. Literacy and numeracy practitioners may find that AfL expands their toolkit of strategies for ongoing assessment of literacy and numeracy in the context of adult education.

87 SOLAS (2018) op. cit., Toolkit, p.26.
88 Black, P. & Wiliam, D (1998). op.cit.

Appendix 4:
Canada Extract from National Occupational Analysis (NOA) Hairstylist[89]

This is an analysis of each of the Essential Skills required to carry out work of Hairstylist, tailored to that specific occupational context.

ESSENTIAL SKILLS SUMMARY

Essential skills are needed for work, learning and life. They provide the foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change.

Through extensive research, the Government of Canada and other national and international agencies have identified and validated nine essential skills. These skills are used in nearly every occupation and throughout daily life in different ways.

A series of CCDA-endorsed tools have been developed to support apprentices in their training and to be better prepared for a career in the trades. The tools can be used independently or with the assistance of a tradesperson, trainer, employer, teacher or mentor to:

- understand how essential skills are used in the trades;
- learn about individual essential skills, strengths and areas for improvement; and
- improve essential skills and increase success in an apprenticeship program.

Tools are available online or for order at: http://www.hrsdc.gc.ca/eng/jobs/les/tools/index.shtml.

The application of these skills may be described throughout this document within the competency statements which support each subtask of the trade. The following are summaries of the requirements in each of the essential skills, taken from the essential skills profile. A link to the complete essential skills profile can be found at www.red-seal.ca.

Reading
Hairstylists read a variety of material including bulletins, manufacturers' specifications, notices, labels, product inserts, client history profiles and forms. They read regulations and agreements outlining chair-rental contracts, salaries and commissions. Hairstylists may read city by-laws to determine licensing requirements and allowable business practices. They read articles and trade magazines to stay informed about industry trends and developments as well as descriptions of new products.

Document Use
Hairstylists locate information on labels to determine ingredients, storage techniques and safety hazards. They also review trend releases and specifications on colour charts, diagrams and tables in order to identify processing times, mixing ratios and colouring agents. They consult client history profiles.

Writing
Hairstylists update client history profiles. They complete forms and also write reminders/notes to co-workers and clients.

89 Montreal: Labour Market and Integration Directorate, Trade and Apprenticeship Division. http://www.red-seal.ca/trades/hairstylists/2016n.4.1_.4v.2rv.3.2w-eng.html

Numeracy
Hairstylists use numeracy in a range of tasks. For example, they measure the amount of fluids using calibrated beakers and tubes. They also compare measurements of time, temperature and fluid volume to product specification and colouring charts. Hairstylists determine length of hair being cut. When scheduling appointments, they also determine amount of time needed to complete appointments and maximize productivity by taking into consideration condition of hair, service being delivered and time specified on product information sheet. They complete financial transactions and collect payment for hairstyling, services and products.

Oral Communication
Hairstylists communicate with clients to determine customers' need and hairstyling service required. They discuss a variety of topics with clients including fashion trends and hairstyle choices. Hairstylists also exchange information with coworkers, suppliers and supervisors. There may be a need to provide reassurance and resolve conflicts.

Thinking Skills
Hairstylists use thinking skills to select tools and products required to create specific hairstyles and to judge the performance of hair care products by considering customers' hair. They use problem solving skills to meet client preferences. Hairstylists evaluate condition of hair and scalp to determine treatment and hairstyle options.

Digital technology
Hairstylists may use current technology to communicate with suppliers, access product manufacturers' website and update client information. They may use calculators or point of sales systems to complete numeracy-related tasks. They may use social media for marketing themselves, networking with others, researching current trends, inspiring creativity and training/self-development. Hairstylists may use technology to create images of desired hairstyles.

Working with Others
Hairstylists may work independently or with other team members to perform tasks and optimize client experience in a professional manner. Hairstylists may also mentor apprentices.

Continuous Learning
Continuous learning is important for hairstylists due to ongoing changes in the industry. They also learn by speaking with co-workers and colleagues and by participating in training. Hairstylists may also learn by reading articles, attending educational events and shows, analyzing photographs and noting hairstyles worn by style leaders.

Appendix 5:
Canada Numeracy for Aerospace Engineers[90]

Money Math Calculate totals on shipping orders and purchase requisitions, multiplying the amount of each type of unit shipped or purchased by its unit price. (2)

- Prepare expense reports for out of town business travel, taking into account the number of days and kilometres travelled, a per kilometre rate, the chargeable unit costs for the room and meals and the applicable taxes. (2)

Scheduling, Budgeting & Accounting Math Compute unit production costs. They factor in the time and hourly rates of employees, quantities and prices of materials, and overhead to obtain the cost of each unit produced. (3)

- Establish and monitor project budgets for large development and testing projects. They ensure that work paid for has been accomplished and that expenses incurred for labour, materials and equipment are fully covered by budgets. (3)

Measurement and Calculation Math Calculate distances between waypoints in navigation models. (2)

- Calculate the rotational speed to determine the inertial force of a gas-turbine engine. (3)
- Plan the placement of new equipment using scale drawings. This involves measuring scale distances, converting them to actual distances and calculating areas, volumes and perimeters. (3)
- Use trigonometric constants to calculate angles. For instance, they may use trigonometric constants to calculate the bend radius for a piece of flat metal. (4)
- Use advanced mathematical methods to verify that specific parts of aerospace vehicles are strong enough to withstand design load conditions. For example, they may use mathematical modelling to determine whether a wing could withstand expected air loads during flight and calculate whether a seat would stay fastened to an aircraft during a crash. (5)

Data Analysis Math Compare the power output of aerospace engines over multiple test runs. (1)

- Compare the technical capabilities of different hardware and software solutions. (2)
- Calculate the average costs of labour and materials over several productions. (3)
- Analyse performance data for aircraft, systems or components under controlled or simulated conditions. They interpret quantitative data and graphs generated by simulation software to identify patterns in data, relationships between variables and criteria for diagnosing problems. (4)
- Develop and analyse mathematical models which predict the strength and durability of aerospace components. For example, an engineer may create a mathematical method to predict the life of an aircraft wing and then validate its predictive ability through physical testing. (5)
- Use advanced mathematical methods to analyse dynamic aircraft systems. For example, they may determine load sharing between several airframe components or analyse the loads on different joints to identify the types and thicknesses of construction materials needed. (5)
- Identify optimal strategies, potential sources of bias and methodological techniques needed to monitor variables in product stress tests, wind tunnel tests, structural

90 Canada Example of an Essential Skills Profile - Aerospace Engineers. https://www.jobbank.gc.ca/essentialskillsresults/73

tests, dynamic tests, durability and damage tolerance tests, complete airframe static tests, flight tests, air load surveys, ground vibrations tests and other experiments. Once test data have been collected, they perform statistical analysis to measure the confidence level of results. (5)

N**umerical Estimation** Estimate the amount of time required to do the physical setup for a flight control system based on experience. (1)

- Estimate the number of person-days which should be assigned to site maintenance in their budgets. Estimates are based on past requirements but there must be an allowance given for unexpected equipment failures. (2)
- Estimate how closely their models approximate the performance of aircraft vehicles, systems or components. Many factors are involved in these estimates and a fair degree of precision is required to ensure the validity of results. (3)

Appendix 6:
Summary of International Reading, Writing and Numeracy Skills Content (Core, Essential, Learning Progressions, NRS)

Country	Reading	Writing	Numeracy	Other
Australia Core Skills Framework[91]	Text navigation: layout, features and conventions Comprehension Use reading strategies Decoding Syntax and language patterns Vocabulary draws on an extensive vocabulary, including specialised terms and cultural references Fluency Audience and purpose Identify info from texts Interpret info in text Evaluate and integrate info Critically analyze ideas from text Construct meaning from text	Vocabulary Grammar Punctuation Spelling Legibility Style Structure & cohesion Register Convey meaning in writing Communicate relationship between ideas and information Generate written text Use broad range of writing styles Write for broad range of purposes Plan, draft, proof, review	Mathematical methods and tools Number and algebra Measurement and geometry Statistics and probability Written mathematical language Oral mathematical language Complexity of mathematical symbolism, representation and conventions Use problem-solving strategies Understand mathematical info in text and activities Select mathematical info embedded in tasks and activities Analyse and synthesis	Wider dimensions: • support • context • text complexity • task complexity

91 Department of Industry, Innovation, Science, Research and Tertiary Education (2012) op.cit.

Country	Reading	Writing	Numeracy	Other
Canada Essential Skills[92]	Understanding continuous text Scanning and skimming for information Critique and evaluate Integrate info from multiple sources Use documents for variety of tasks: locate variety of info displays (forms, checklists, graphs, tables, signs, labels, drawings,) Read and Interpret docs in print and on screen	Write texts Write on paper and on computer Communicate by arranging words, numbers, symbols Organise Record Document Persuade Justify	Use numbers Think in quantitative terms to complete tasks Money maths Scheduling Budgeting Accounting Measurement Calculation Data analysis	
New Zealand Learning Progressions[93]	Read with understanding Use range of strategies to decode unfamiliar words Use a large bank of sight words Make use of knowledge of language features, and grammar and the features of written texts. Use a range of comprehension strategies Read critically	Write for purpose and audience Spell accurately Vocabulary to write text Use their knowledge of language features, and the features of written texts, including grammar, punctuation, sentence structure and forming paragraphs. Plan and compose texts Revise and edit texts	Make sense of number to solve problems[94] Use counting and partitioning strategies to add and subtract Use strategies to multiply and divide Use proportional reasoning strategies Solve problems that involve number sequence Understand place value Reason statistically Prepare data for analysis Analyse data for interpretation Interpret data Use knowledge of probability to solve problems Measure and interpret shape and space Apply knowledge of shapes and location of shapes in space to tasks in everyday life	

92 Canada Essential Skills Government of Canada: Tools, Assessment and Training Support https://www.canada.ca/en/employment-social-development/programs/essential-skills/tools.html
93 Tertiary Education Commission Te Amurangi Matuaranga Matua (2008) op.cit.
94 ibid.

Country	Reading	Writing	Numeracy	Other
USA National Reporting System[95]	Decoding Use phonics Basic sight vocabulary Comprehension Locate information Integrate and evaluate information Translate quantitative data presented visually into words Read from diverse media Make inferences Understand point of view Understand register and tone	Use correct grammar and syntax Spelling and punctuation Write narrative Signal event order (sequencing) Paraphrase Summarise Write informative texts Compose arguments	Mathematical Practices: e.g. place value, recognise and solve multi-step problem.[96] Number sense and operations: e.g. add, subtract, multiply divide. Algebraic Thinking: e.g. solve real-world problems by representing and analysing quantitative information. Geometry and Measurement: e.g. reason with and measure shapes, solve problems involving scale drawings'. Data Analysis: e.g. sort data sets, draw and interpret graphs, describe patterns and deviations from patterns.	Two sets of level descriptors for each level: entry and exit.

95 US Department of Education Division of Adult Education and Literacy (Dec 2017) op.cit.
96 ibid.

Country	Reading	Writing	Numeracy	Other
UK England[97] Functional Skills & Entry Level	Identify and understand main points, distinguish between fact and opinion Audience and purpose Use reference materials Use appropriate reading Understand organisational and structural features Locate information Infer from images meanings not explicit in the accompanying text Specialist words in context Punctuation to aid identifying levels of Identify levels of formality Identify bias	Punctuation Grammar Spelling Communicate information Write text for purpose and audience Use format, structure and language appropriate for audience and purpose. Write accurately Use complex sentences and paragraphs where appropriate Convey clear meaning Structural markers Use different language and register Construct complex	Maths[98] Entry Level 1 – solving mathematical problems and decision making. Entry Level 1 students are expected to be able to: Use given mathematical information and recognise and use simple mathematical terms appropriate to Entry Level 1 Use the methods given above to produce, check and present results that make sense; and Provide a simple explanation for those results using numbers and the number system – whole numbers, fractions and decimals Entry Level 2 – Handling information and data: Extract information from lists, tables, diagrams and bar charts Make numerical comparisons from bar charts Sort and classify objects using two criteria Take information from one format and represent the information in another format including use of bar charts Entry Level 3 – Using common measures, shape and space	

97 Department for Education (2017) op.cit
98 ibid.

Country	Reading	Writing	Numeracy	Other
UK Scotland Core Skills	Read, understand text Identify main points Identify purpose of text Evaluate	Convey information or ideas in writing Use correct lay-out and format Vocabulary, sentence structure Punctuation and spelling Appropriate to audience Appropriate to purpose	Use numerical skills involving graphic information and calculations[99] Carry out multi-step calculations Decide which calculations to carry out and in what order Measuring: Read and use a simple scale on a graph or a familiar measuring instrument Extract information from graphical format (chart, graph) Convey information in graphical format Making calculations involving money, time, length, weight, area, volume, or temperature	Core Skill Framework has a version dedicated to Workplace
UK Wales[100] Essential Skills	Read, understand and obtain information on familiar everyday topics from short documents Read, understand and obtain information independently from at least two different types of documents Read, understand and synthesise information from at least two documents about the same subject.	Write a short document to communicate information to a familiar given audience in a given format, using appropriate language Write two short documents of different types to communicate information to a familiar audience in appropriate formats Write two documents of different types, each one giving different information to different audiences about complex subjects in appropriate formats.	Understand numerical data Carry out calculations Interpret results Present findings	Assessment of Communication and Number is by controlled task Six levels Entry 1,2,3; L 1,2,3

99 SQA (2014) op.cit.
100 Agored Cymru (2015) op.cit.

Country	Reading	Writing	Numeracy	Other
UK N Ireland **Essential Skills**[101]	Identify the main points Read from different types of text Select relevant info Summarise Identify purpose Identify point of view Identify bias Consider audience and purpose	Present information in a logical sequence Language and structure appropriate to audience and purpose Grammar Punctuation and spelling Clarity of meaning Present ideas coherently Use different styles for purposes Range of sentence structures Use a range of sentence	Represent: selecting the mathematics, decide on method to use, solve problems e.g. money, measurement, use simple formulae Calculate: processing and using mathematics, use relevant procedures, find results and solutions, basic operations, equivalences fractions and % Interpret: interpreting and presenting findings, check results, use appropriate language, collect, record, organise data, use data to get results	Reading and Writing are combined in same units

101 Pearson Edexcel (2016) "Pearson Edexcel Level 1 Certificate in Essential Skills Northern Ireland – Application of Number Specification Levels 1 & 2," London: Pearson Education Ltd. https://qualifications.pearson.com/en/qualifications/essential-skills-northern-ireland.html

Appendix 7:
Literacy/Numeracy Individual Learner Plan

Learner's Name		Programme			
1. Learning outcomes: I want to be able to:		I can do this now...			
		Not yet	**A bit**	**Mostly**	**Yes**
1					
2					
3					
4					
5					
6					
2. Initial assessment performance tasks: tasks I carried out to generate evidence for learning outcomes in Section 1					
Task 1: **Task 2:**					

3. Broader Dimensions: Independence, fluency, setting, other; insert Learning Outcomes as appropriate to learning goals:

I want to be able to carry out literacy/numeracy tasks…

Learning Outcome	**Independence:** without help	I can do this now…			
		Not yet	A bit	Mostly	Yes
1					
2					
3					
Learning Outcome	**Fluency:** easily, with no hesitations	Not yet	A bit	Mostly	Yes
1					
2					
3					
Learning Outcome	**Setting:** anywhere	Not yet	A bit	Mostly	Yes
1					
2					
3					
Learning Outcome	**Other**: e.g. with learning awareness, confidence etc.	Not yet	A bit	Mostly	Yes
1					
2					
3					

Appendix 8:
Individual Progress Tracking Form for Literacy/Numeracy

Name	Course

Learning Outcomes I decided to work on: reading, writing, numeracy, other

	a) I want to be able to:	b) ILP: I can do this Date_____				c) Review 1: I can do this Date_____				d) Review 2: I can do this Date_____				e) Review 3 : I can do this Date_____			
		Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes
	1																
	2																
	3																

Broader Dimensions: Independence, fluency, setting, other

	Independence: without help a) I want to be able to carry out this/these literacy/numeracy tasks…	b) ILP: I can do this Date_____				c) Review 1: I can do this Date_____				d) Review 2: I can do this Date_____				e) Review 3: I can do this			
		Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes
Learning Outcome																	

	Fluency: easily, with no hesitations a) I want to be able to carry out this/these literacy/numeracy tasks…	b) ILP: I can do this Date_____				c) Review 1: I can do this Date_____				d) Review 2: I can do this Date_____				e) Review 3: I can do this			
		Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes
Learning Outcome																	

	Setting: anywhere a) I want to be able to carry out this/these literacy/numeracy tasks…	b) ILP: I can do this Date_____				c) Review 1: I can do this Date_____				d) Review 2: I can do this Date_____				e) Review 3: I can do this			
		Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes
Learning Outcome																	

	Other: e.g. with learning awareness, confidence, under specific conditions etc.	b) ILP: I can do this Date_____															
		Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes	Not yet	A bit	Mostly	Yes
Learning Outcome