

OCR Teaching in the Lifelong Learning Sector – Qualification Units

Unit 36 - Level 5 Enabling Learning and Assessment (Numeracy)

Level 5

QAN Accreditation Number TBC

Unit description

Unit aims

The aim of this unit is to develop an understanding of the theories and practice in assessment of numeracy skills in order to promote and develop teaching and learning.

Credit value 15

Unit synopsis

This unit is about:

- Knowledge of theories and principles of assessment
- Understanding of the implications of equality and diversity issues in assessment
- Evaluation and use of appropriate assessment methods, tools and procedures
- Providing appropriate feedback to promote learning
- Reflection on own strengths and weaknesses in relation to knowledge and use of assessment methods
- Production of an action plan for appropriate Professional Development.

Examples of teaching and learning strategies

The following teaching methods and learning strategies are appropriate to the delivery and development of the knowledge, understanding and skills covered in this unit. A variety of these should be used to provide a model of good practice to the candidate. This list is not exhaustive:

- Small group discussion
- Directed study and research
- Lecture
- Resource based learning
- Question and answer
- Micro teaching session
- Role play
- Discussion
- Lecture and exposition
- Games
- Workshop activities
- Tutorials

Guidance on delivery for centres

For many candidates this may be the first opportunity to explore in depth assessment principles including equality, procedures and feedback.

Appropriate methods of delivery:

- Provision of individual learning plans
- Provision of guidance on the qualification and progression routes to further development
- Provision of opportunities for learning e.g. discussion, tutorials, workshop activities etc
- Provision of ongoing mentoring to the candidate, including review and feedback on learning experiences and development of competence
- Observation of peer-to-peer discussions of groups of candidates or of discussions with colleagues
- Observation of candidates working within a partnership
- Professional discussion with the assessor will test the knowledge requirements, where these are not already met through the activities described above

Guidance on assessment for centres

The assessment can include:

- Written assignment
- Case studies
- Research projects
- Student assessments
- Individual learning plans
- Lesson plans

- Written review of students progress

This is a level 4 unit and thus the candidate must demonstrate complex skills and knowledge in this particular area of numeracy acquisition and use. The ability to recognise and develop thinking across these criteria is to be encouraged but it does mean that written evidence, whilst aiming for succinctness and clarity of thought, will need to be of sufficient depth and breadth to meet the level 4 standard. There is an expectation that the written work will be presented at the appropriate level.

Suggested Reading

The following list is not intended to be exhaustive, but provides suggested texts which candidates may find helpful. It is not compulsory for students to read all publications in the list; they are identified for reference only.

Benn, R. (1997) *Adults Count Too – Mathematics and Empowerment*. London: NIACE.

Biggs, V. (2005) *Caged in Chaos. A Dyspraxic Guide to Breaking Free*. London: Jessica Kingsley.

Bolton, G. (2005) *Reflective Practice, Writing and Professional Development* (2nd ed) London: Sage

Brooks, G. Heath, K. and Pollard, A. (Feb 2005) *Assessing Adult Literacy and Numeracy: A Review of Assessment Instruments*: NRDC Publications

Brown, S. and Race, P. (1994) *Assess Your Own Teaching Quality*. London: Kogan Page

Buxton, L. (1981) *Do you Panic about Maths? Coping with Maths Anxiety*. London: Heinemann.

Chinn, S.J. (2004) *The Trouble with Maths, A Practical Guide to Helping Learners with Numeracy Difficulties*. London: Routledge.

Ecclestone, K. (2003) *Understanding Assessment and Qualifications in Post-compulsory Education: Principles, Politics and Practice*. NIACE.

Gibbs, G. (1995) *Assessing Student Centred Courses*. Oxford: The Oxford Centre for Staff and Learning Development

Henderson, A. (1998) *Maths for the Dyslexic, A Practical Guide*. London: Fulton.

Heron, J. (199) *The Complete Facilitator's Handbook* London: Kogan Page.

Herrington, M. and Kendall, A. (eds) (2005) *Insights from Research and Practice: A Handbook for Adult Literacy, Numeracy and ESOL Practitioners*. Leicester: NIACE.

Lambert, D. and Lines, D. (2000) *Understanding Assessment: Purposes, Perceptions, Practice*. London: Routledge.

Lavender, P., Derrick, J. and Brooks, B. (2004) *'Testing, Testing...'*, *Assessment in Adult Literacy, Language and Numeracy*. A NIACE Policy Discussion Paper. NIACE.

Maudsley, L. and Nightingale, C. (2004) *Achievement in Non-accredited Learning for Adults with Learning Difficulties*. Report of the scoping study. NIACE.

Reece, I. and Walker, S. (2006) *Teaching Training and Learning* (6th ed) Sunderland: Business Education

Swan, M. (2006) *Collaborative Learning in Mathematics, A Challenge to our Beliefs and Practices*. Leicester: NIACE

Tett, L., Hamilton, M. and Hillier, Y. (2006) *Adult Literacy, Numeracy and Language*. Maidenhead: OUP.

Journals

Adults Learning

Numeracy Briefing

Reflect The Magazine of the NRDC

Websites

www.ncetm.org.uk/ The National Centre for Excellence in Teaching of Mathematics (NCETM) – excellent resource which includes a professional development portal

www.nrdc.org.uk National Research and Development Centre for research into all areas of adult numeracy (and literacy and ESOL)

<http://www.maths4life.org.org> Resource: 'Thinking Through Mathematics, strategies for teaching and learning' DfES 2007

www.dfes.gov.uk/readwriteplus Adult Numeracy Core Curriculum and related documents

Assessment Criteria, Knowledge and Evidence Linked to Practice

1.

	Assessment Criteria	Knowledge	Evidence Linked to Practice
1.1	Analyse the application of theories and principles of assessment in relation to practice in own specialist area.	Theories, principles and applications of formal and informal assessment of numeracy skills.	Three examples from your own practice of how you have used assessment to evaluate teaching and learning, justifying the approach you have taken in relation to theories and principles. Explain how the assessments are part of the quality cycle of your institution.
1.2	Analyse the role of assessment in evaluation and quality processes.	Assessment as an evaluation tool and its role in the quality cycle of an institution.	

2.

	Assessment Criteria	Knowledge	Evidence Linked to Practice
2.1	Critically discuss the implications of equality and diversity issues in assessment for teachers and learners.	Awareness of issues of ethnicity, culture, age, gender, educational background, socio-economic status and social networks which could impact upon the effectiveness of assessment	Written evidence discussing issues relating to equality and diversity in the assessment process, analysing their impact and discuss strategies to overcome them (this can be linked to the practice in section 1)

3.

	Assessment Criteria	Knowledge	Evidence Linked to Practice
3.1	Plan and/or design and use assessment schemes, methods and instruments that are fair, valid, reliable, sufficient and appropriate for learners, using new and	The types of skills knowledge and understanding that can be assessed in mathematics and numeracy. Formal and informal assessment tools including:	Three examples of numeracy assessment methods used in particular contexts. Justify your choice by demonstrating the appropriateness, reliability, validity and fairness of the method chosen.

	emerging technologies where appropriate.	<ul style="list-style-type: none"> • initial • diagnostic • formative • summative • peer assessment • e-assessment. <p>Environment requirements for implementation of assessment.</p> <p>Issues of equality and diversity which could impact on the assessment process for teachers and learners.</p>	<p>(this can be linked to the practice in section 1)</p> <p>Three examples of numeracy assessment demonstrating awareness of any issues relating to culture, diversity and learning difficulties or disabilities. Provide a commentary demonstrating how the assessment environment maximised the learners opportunities for success (this can be linked to the practice for section 1).</p>
3.2	Justify the selection and /or design and use of formal and informal assessment methods and tools used in own specialist area.		
3.3	Establish and maintain an appropriate environment for assessment to maximise learners' opportunities for success.		
3.4	Record, and report on learner progress and achievement, using organisational and/or awarding institution protocols and procedures as required.	Appropriate procedures for recording assessment results, progress and achievement.	Three student ILP's and subsequent reviews which document progress and achievement made by the student (this can be linked to the practice for section 1)

4.

	Assessment Criteria	Knowledge	Evidence Linked to Practice
4.1	Justify and use appropriate skills and approaches in giving verbal and oral and written feedback to learners.	Appropriate communication skills to give feedback including oral, written, formal and informal	<p>Two observed one to one interviews with learners to include:</p> <ul style="list-style-type: none"> • verbal and oral feedback to learners using appropriate skills • negotiation of an individual learning plan
4.2	Justify and use appropriate skills and approaches to negotiate	How to interpret the wider results of assessment in numeracy, considering understanding of	

	targets and strategies for improvement and success for learners.	<p>concepts and methods not just achievement.</p> <p>SMART targets.</p> <p>Procedures for setting individual learning.</p> <p>Procedures for reviewing individual learning.</p> <p>Appropriate communication skills to negotiate targets and strategies for improvement.</p>	<ul style="list-style-type: none"> • review of the learning plan • justification of targets and strategies used to enable improvement and success for the learner (this can be linked to the practice for section 1).
--	--	--	---

5.

	Assessment Criteria	Knowledge	Evidence Linked to Practice
5.1	Apply minimum core specifications in literacy to improve own practice.	Requirements of the minimum core specifications in relation to own personal skills of literacy, numeracy and ICT.	<p>Written evidence of self assessment of the competences as specified in the functional skills (literacy, numeracy and ICT).</p> <p>A personal ILP to improve own practice in the minimum core specifications where necessary.</p>
5.2	Apply minimum core specifications in language to improve own practice.		
5.3	Apply minimum core specifications in mathematics to improve own practice.		
5.4	Apply minimum core specifications in ICT user skills to improve own practice.		

6.

	Assessment Criteria	Knowledge	Evidence Linked to Practice
6.1	Evaluate and improve the design and effectiveness of formal and informal assessment procedures, methods and instruments, using feedback from learners and appropriate others and referring to relevant theories of learning.	<p>A range of theories of numeracy acquisition.</p> <p>Strategies to obtain feedback from learners and others on assessment methodology used.</p> <p>Formal and informal assessment procedures, methods and instruments.</p>	Written evidence evaluating three assessment methodologies and analysing their strengths and limitations (this can be linked to the practice for section 1).
6.2	Evaluate own approaches, strengths and development needs in relation to assessment.	<p>Techniques to identify of own strengths and weaknesses in relation to assessment.</p> <p>Techniques to identify one's own development needs.</p>	Reflective log of assessments carried out evaluating own strengths and weaknesses in relation to the application of assessment techniques (this can be linked to the practice for section 1)
6.3	Plan and take up appropriate development opportunities to improve own practice in relation to formal and informal assessment.	<p>Present level of practice in application of assessment techniques.</p> <p>Professional development available both in house and through the Skills for Life Initiative.</p>	<p>An action plan with SMART targets to improve own practice in relation to informal and formal assessment.</p> <p>Identify the professional development appropriate to each target for improvement.</p>