

Higher National Unit Specification

General information for centres

Unit title: Applications of ICT in Libraries: Carrying Out the Educator Role

Unit code: DP5J 35

Unit purpose: The purpose of this Unit is to develop skills in design and delivery of training on ICT related topics.

On completion of the Unit the candidate should be able to:

- 1 Establish ICT training needs for individuals and groups.
- 2 Select delivery approach which takes account of learner's preferred learning style and is appropriate for learning content.
- 3 Design learning materials and programmes on ICT related topics.
- 4 Utilise appropriate skills to support individuals and groups in their use of learning materials and programmes on ICT related topics.
- 5 Evaluate and revise learning materials and programmes on ICT related topics.

Credit points and level: 2 HN Credits at SCQF level 8: (16 SCQF credit points at SCQF level 8*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Recommended prior knowledge and skills: Access to this Unit will be at the discretion of the Centre. There are no specific requirements but candidates would benefit from core skills in Information Technology at Intermediate 2 and Communication and Problem Solving at Higher level. These may be demonstrated by the possession of relevant National Units.

Core Skills: There may be opportunities to gather evidence towards Core Skills in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

Context for delivery: If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

Assessment: Evidence for the knowledge and/or skills for the entire Unit must be produced from:

- 1 A logbook fully documenting the activities related to the five Unit Outcomes for a group of learners requiring ICT related training.

and

General information for centres (cont)

- 2 An account based on the knowledge and/or skills of Outcome 2. This should be equivalent to a minimum length of 500 words and no greater than 1,000 words.

Item 1 will have an assessment weighting of 75% of the total. Item 2 will have an assessment weighting of 25% of the total.

The candidate's evidence for Item 1 should be in the form of a logbook recording the work carried out by the candidate. Within this, all the candidate's actions, decisions, the resulting materials, support given to the client and evaluation of the learning are to be recorded. The logbook may be in print or electronic format and must be authenticated by the tutor or mentor.

Within the logbook candidates should present evidence to prove that they have addressed the skills and knowledge in each of the five outcomes. Specific guidance on this can be found in the logbook instructions in Evidence Requirements from which a template for the logbook structure may be produced for the candidate.

The candidate's evidence for Item 2 should be in the form of a short account equivalent to between 500 and 1,000 words. The topic will be chosen by the candidate (with approval of the tutor or mentor) from the knowledge and/or skills of Outcome 2. The essay may be in print or electronic format and must be authenticated by the tutor or mentor.

An assessment exemplar and guidelines on the delivery of the unit have been produced to indicate the national standard of achievement required at SCQF level 8.

As a number of Outcomes are assessed together an assessor must ensure that each Outcome has been achieved by the candidate to successfully achieve a pass in this Unit.

Higher National Unit specification: statement of standards

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The sections of the Unit stating the Outcomes, knowledge and/or skills, and evidence requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the knowledge and/or skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 1

Establish Information and Communications Technology (ICT) training needs for individuals and groups

Knowledge and/or skills

- ◆ Training needs analysis techniques related to:
 - work
 - personal life

Outcome 2

Select delivery approach which takes account of learner's preferred learning style and is appropriate for learning content

Knowledge and/or skills

- ◆ Learning styles
- ◆ Delivery methods
- ◆ Motivation of the learner

Outcome 3

Design learning materials and programmes on ICT related topics

Knowledge and/or skills

- ◆ Methods of defining learning objectives
- ◆ Ways of structuring learning
- ◆ Use of ICT to create learning materials
- ◆ Techniques for selecting and merging content from internal and external sources

Higher National Unit specification: statement of standards (cont)

Unit title: Applications of ICT in Libraries: Carrying Out the Educator Role

Outcome 4

Utilise appropriate skills to support individuals and groups in their use of learning materials and programmes on ICT related topics

Knowledge and/or skills

- ◆ Coaching
- ◆ Mentoring
- ◆ Training
- ◆ Appropriateness of support
- ◆ First-line ICT support

Outcome 5

Evaluate and revise learning materials and programmes on ICT related topics

Knowledge and/or skills

- ◆ Assessment of learner's progress by:
 - observation
 - informal assessment
 - use of feedback
- ◆ Design of feedback tools
- ◆ Evaluation of success of learning approaches used
- ◆ Revision of learning materials and programme

Evidence Requirements for the Unit

Evidence for the knowledge and /or skills for the entire Unit must be produced from:

- 1 A logbook, fully documenting the activities related to the five Unit Outcomes for a group of learners requiring ICT-related training.

and

- 2 An account based on the knowledge and/or skills of Outcome 2. This should be equivalent to a minimum length 500 words and no greater than 1,000 words.

Item 1 will have an assessment weighting of 75% of the total. Item 2 will have an assessment weighting of 25% of the total. Both items must be passed to obtain a pass in the Unit.

Higher National Unit specification: statement of standards (cont)

Unit title: Applications of ICT in Libraries: Carrying Out the Educator Role

Logbook

The logbook must record successful completion by the candidate of an extended case study, fully documenting the activities related to the five Unit Outcomes for a group of learners (made up of clients or colleagues) who require ICT-related training.

The tutor or mentor must take steps to authenticate the evidence as the unaided work of the candidate. This could be done most easily by direct observation and/or questioning of the candidate once the work has been completed.

The logbook must record all five of the tasks listed below:

Task 1: Establishing training needs

- ◆ Using TNA techniques to establish ICT training needs for individuals and groups. A minimum of three techniques chosen from:
 - direct observation of learner and/or of competent colleagues using ICT in the workplace
 - questionnaires or checklists covering key ICT competences
 - consultation with persons in key positions and/or with specific knowledge
 - interviews with learner or with competent colleagues
 - focus groups of learners
 - practical tests and assessments of the learner's use of ICT
 - examination of the learner's work records relevant to ICT use
 - the learner's staff appraisal reports
 - work samples belonging to the learner and/or colleagues

Task 2: Selecting delivery approach

- ◆ Choosing delivery methods and justifying choice in terms of learning styles and content
 - demonstration
 - group problem solving
 - "chalk and talk"
 - role playing
 - practical activities, individually and in groups
 - individualised learning eg from a book or an e-learning package
- ◆ Demonstrating techniques for motivating learners

Task 3: Designing learning materials and programmes

- ◆ Design learning materials and programmes on ICT related topics
- ◆ Defining specific learning objectives
- ◆ Structuring learning regarding the order of interrelated topics and taking into account the learning cycle
- ◆ Using ICT to create learning materials by means of general purpose and/or specialised authoring packages
- ◆ Selecting and merging content from internal and external sources, demonstrating compliance with Copyright legislation

Higher National Unit specification: statement of standards (cont)

Unit title: Applications of ICT in Libraries: Carrying Out the Educator Role

Task 4: Supporting individuals and groups

- ◆ Using appropriate skills to support individuals and groups in their use of learning materials and programmes on ICT related topics

All of the following should be used at appropriate phases of the training programme and reasons given for their use at these points:

- coaching
- mentoring
- training
- first-line ICT support

Task 5: Evaluating and revising learning materials and programmes

- ◆ Assessing the learner's progress by:
 - observation
 - informal assessment
 - use of feedback
- ◆ Designing tools to gather feedback from the learner on:
 - the learning experience
 - the learning objectives
 - the learning content
 - the learning materials
 - the support given by the trainer
 - the trainer's presentation
 - the learning environment
 - the equipment
- ◆ Assessing the success of learning approaches used from:
 - learner feedback
 - learner progress
- ◆ Outlining and justifying revisions to be made to training programme

Account

Candidates will demonstrate their knowledge and/or skills of outcome two by producing an account of the work they have carried out.

The account must:

- ◆ be equivalent to at least 500 words and no more than 1,000 words long
- ◆ encompass at least TWO of the three knowledge and skills of Outcome 2
- ◆ be factually correct and relevant to the chosen topic
- ◆ illustrate an understanding of key principles and techniques
- ◆ be clearly written, well structured and concise

Higher National Unit specification: statement of standards (cont)

Unit title: Applications of ICT in Libraries: Carrying Out the Educator Role

- ◆ correctly attribute and reference the work of other people
- ◆ be authenticated by the tutor or mentor

Assessment guidelines for the Unit

All the work for the logbook should be undertaken in a real work environment with real clients.

The account may take the form of an essay, a report, a presentation, an audio or video recording or any other suitable format.

As a number of Outcomes are assessed together an assessor must ensure that each Outcome has been achieved by the candidate to successfully achieve a pass in this Unit.

Administrative Information

Unit code:	DP5J 35
Unit title:	Applications of ICT in Libraries: Carrying Out the Educator Role
Superclass category:	CZ
Original date of publication:	September 2006
Version:	02

History of Changes:

Version	Description of change	Date
02	Added: As a number of Outcomes are assessed together an assessor must ensure that each Outcome has been achieved by the candidate to successfully achieve a pass in this Unit	8/9/06

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Higher National Unit specification: support notes

Unit title: Applications of ICT in Libraries: Carrying Out the Educator Role

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 80 hours.

Guidance on the content and context for this Unit

Outcome 1 relates to the practice of training needs analysis techniques in order to establish ICT training needs for individuals and groups.

Candidates should recognise that the learner may have acquired ICT skills and knowledge in the workplace or through activities outside work. The TNA should relate to competences from both environments.

Training needs analysis involves estimating the learner's current competence, the level of end competence required and quantifying the skills gap between these, if any. Candidates will understand that learners may have acquired differing levels of ICT competence through training and experience in the workplace, through formal training such as an ICT course at school or college or through personal development and experience outside work. All current ICT competence, however acquired, must be assessed. Assessment of the competence required (the final objective of the learning) may be gained from the learners themselves, their managers and/or their colleagues, especially colleagues in similar job role who are already competent in the ICT skills required for the post.

Candidates are expected to use a range of TNA techniques, which may include some or all of:

- ◆ direct observation of learner and/or of competent colleagues using ICT in the workplace
- ◆ questionnaires or checklists covering key ICT competences
- ◆ consultation with persons in key positions and/or with specific knowledge
- ◆ interviews with learner or with competent colleagues
- ◆ focus groups of learners
- ◆ practical tests and assessments of the learner's use of ICT
- ◆ examination of the learner's work records relevant to ICT use
- ◆ the learner's staff appraisal reports
- ◆ work samples belonging to the learner and/or colleagues

Outcome 2 relates to selecting a delivery approach which takes account of learner's preferred learning style and is appropriate for learning content.

◆ learning styles

Candidates should be aware of some common theories about learning styles and the implications of these for delivery of training. For instance, a well-recognised approach is that of Honey and Mumford who identified four main learning styles:

Higher National Unit specification: support notes (cont)

Unit title: Applications of ICT in Libraries: Carrying Out the Educator Role

- activists
- reflectors
- theorists
- pragmatists

Candidates should be aware that although each learner is likely to have one preferred learning style, everyone can use a mixture of styles, depending on the type of learning and the occasion. Thus candidates must be prepared to adopt a flexible approach incorporating a variety of delivery methods which suit different learning styles. According to Honey and Mumford, the preferred learning styles are:

Activists	Prefer new experiences, opportunities to tackle problems and difficult tasks. They like generating new ideas, brain storming, leading others.
Reflectors	Prefer to collect all the facts and consider all aspects of the situation before taking action. They will listen to other's opinions and experiences and learn from them.
Theorists	Prefer a clear structure, focus and purpose and will want to know exactly what is expected of them. They like to have time to think logically about ideas and situations and try to fit these into a pattern.
Pragmatists	Prefer to get on with concrete activities which have obvious benefits to them. They like to have the opportunity to practice what they are learning with feedback from a knowledgeable mentor.

◆ Delivery methods

In order to include a variety of approaches which accommodate different learning styles, the candidate must know where it is appropriate to use different approaches such as:

- demonstration
- group problem solving
- "chalk and talk"
- role playing
- practical activities, individually and in groups
- individualised learning, eg from a book or an e-learning package

As well as adopting a range of training approaches, the candidate should also be aware of other motivating factors for the learner. One major motivator is for the candidate to see that they have achieved something. The implication of this for the educator is that learning programmes must be broken down into small sections and the objective and sub-objectives for each section should be clearly expressed. For instance, if the training relates to word processing, a sub-objective might be for the learner to become competent in left, right and full justification of text.

Higher National Unit specification: support notes (cont)

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◆ Motivation of the learner

Candidates should also understand that factors outside the training experience may be motivational for the learner. If completion of the training will lead to monetary reward, promotion or other benefits, this should be explained clearly at the outset. Conversely, the candidate should make sure that any practical issues which might demotivate the learner are minimised. Examples might be too high or too low temperatures in the training environment, training sessions which start late or over-run, extraneous noise or distractions, technical problems with ICT equipment, interruptions or pressures due to day-to-day work.

Outcome 3 relates to the design of learning materials and programmes on ICT related topics.

◆ Defining learning objectives

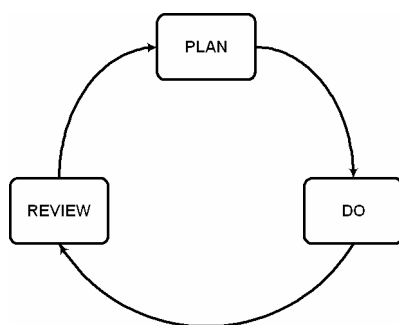
Candidates should define learning objectives in specific terms. Learning objectives usually involve a statement of:

- the task or knowledge involved ie what must the learner be able to do or know? eg save data in a spreadsheet
- the condition ie how will it be performed? eg without reference to the Help facility
- the standard ie how well must it be performed? eg correctly in 90% of cases

It is generally accepted that all learning objectives should be SMART (Specific, Measurable, Achievable, Realistic, Timebound.)

◆ Structuring learning

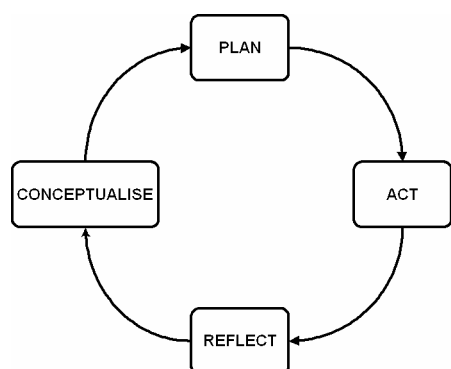
In structuring learning candidates should take account of the learning cycle. In its simplest form the way in which learning takes place may be expressed as:



or in Kolb's more sophisticated version as:

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Candidates should also devise a logical sequence for the learning, taking account of which parts of the learning are a precursor for others, moving from simpler to more complex concepts and grouping related topics together. Any session should have a beginning (where the objectives are clearly stated and agreed by the candidate and the learners), a middle (where the learning activities are undertaken) and an end (where the learning is summarised and next steps agreed). The learning plan should be made clear to the learners when the learning programme commences. In structuring the learning the candidate should ensure that a variety of learning experiences are included to prevent tedium demotivating the learner.

◆ Use of ICT to create learning materials

The candidate's approach to the use of software to create learning materials will be dependent on the availability of software within the organisation. There are several courseware creation packages available, which can be used. Although they offer many features to include multimedia etc, the vital advantage is that they provide routing (branching and looping) through the material allowing learners to take their own appropriate path. They can also provide automated and recorded assessment. Examples of such content creation software are Macromedia Authorware, Director and Dreamweaver (<http://www.macromedia.com>) and other products such as Lectora (<http://www.lectora.co.uk>). These are complex packages and may require specialist training to enable candidates to gain maximum benefit.

If specialised software is not available, there are other ICT routes. Word processing software such as Microsoft Word can be used to author content. Graphics, animations, videos and sound files can also be included in the document, as well as text. Animations and sound files will then operate when the document is viewed on a computer.

A more polished package can be created by using presentation software such as Microsoft PowerPoint. The greatest advantage is that this will create a page-based approach.

Additionally a common look can be created throughout the whole package. Again, sound or still and moving visual effects can be incorporated.

Higher National Unit specification: support notes (cont)

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Candidates can use a site like <http://www.gla.ac.uk/%7Ejwalk001/dwresourcesweb/index.html> which has a range of practical units on making the most of Microsoft software aimed at designing simple learning episodes.

Candidates should have knowledge of how both specialised and general software can be used to create a learning package. They should have experience of authoring with either general or specialised software.

◆ **Selecting and merging content from internal and external sources**

Candidates should appreciate that it is not always necessary to produce original content for learning packages. A wealth of learning material is available through the Internet and much of this is copyright free for educational purposes. Candidates should ensure that any chosen material matches the learning objectives and style of the complete package. Candidates must ensure that the use which is made of the chosen material is fully compliant with copyright.

Outcome 4 relates to supporting the learner. The candidate is expected to utilise appropriate skills to support individuals and groups in their use of learning materials and programmes on ICT related topics

- coaching
- mentoring
- training
- appropriateness of support

The candidate should be able to distinguish between coaching, mentoring and training and know in which situations each is appropriate. In **coaching**, the learner and the coach are active collaborators. The coach instructor observes the learner as they try to complete tasks and provides hints, help, and feedback as needed. **Mentoring** involves a sustained relationship between the learner and the mentor who offers support, guidance, and assistance. **Training** is more formal learning where the trainer imparts skills and knowledge to the learner.

All three of these roles can be appropriate in different phases of the learning programme. Each involves the candidate's use of sophisticated communication skills. The candidate must at some times be directive, at others passive; they must recognise when it is appropriate to intervene to support the learner and when it is more effective to permit independent learning even though this involves the learner making mistakes; they must be able to diffuse conflict and handle aggression while remaining assertive and in control of the overall learning process.

◆ **First-line ICT support**

Higher National Unit specification: support notes (cont)

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When the learner is using any ICT based learning package in the library, whether as a complete package or as part of a learning programme, it is likely that from time to time some technical snags will arise. The candidate must be able to assist the learner with straightforward trouble shooting eg printing problems because the page set-up is not correct; computer “hanging”; changing screen resolution. The candidate should also be able to assist any learner with special needs to use appropriate features of the technology. There is no suggestion that the candidate should possess sophisticated trouble shooting skills: this is the responsibility of ICT technical staff. Rather the candidate should be acquainted with typical, straightforward difficulties which can arise and be able to suggest how these can be overcome.

Outcome 5 relates to the gathering of feedback on the learning programme and using this information to evaluate the programme’s effectiveness so that it may be revised and improved for future delivery.

◆ **Assessment of learner’s progress by:**

- observation
- informal assessment
- use of feedback

It is important to recognise that the candidates are educators, not trained teachers. Thus assessment of the learner’s progress does not imply formal assessment for the award of formal qualifications. Essentially all assessment undertaken by the candidates is formative assessment, intended to give feedback to the learner on his/her progress towards the learning objectives and to the candidate as to how effective the learning programme has been.

The learner’s progress may be assessed by direct observation of activities; by examination of any products such as printouts and screen dumps which occur naturally in the course of the learning; by informal assessment tools such as quizzes or tick box tests. In addition the candidate can ask for direct feedback from the learner. This may be obtained through verbal interaction or the learner could be issued with a scorecard on which to record the tasks in which they consider themselves to be competent. Some ICT based packages have diagnostic tests which score and benchmark learner competence.

◆ **Design of feedback tools**

As well as the learner’s progress towards the learning objectives, the candidate will also gather feedback from the learner about the actual learning experience. Criteria which can be included in such feedback are:

- was the learning experience enjoyable?
- were the learning objectives relevant?
- did the content match the stated learning objective?
- was the quality of the learning materials satisfactory?
- did the trainer provide sufficient support?
- was the trainer’s presentation clear?
- was the learning environment pleasant?
- were there any deficiencies or problems with the equipment?

Higher National Unit specification: support notes (cont)

Unit title: Applications of ICT in Libraries: Carrying Out the Educator Role

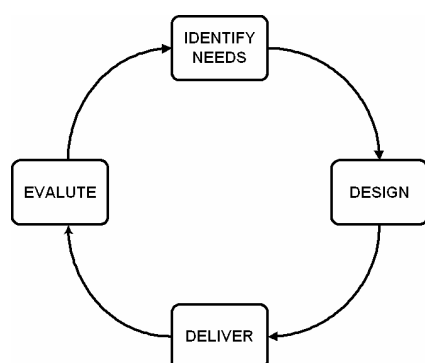
Candidates should understand the principles of designing feedback forms which are expressed in neutral terms so as not to prompt a certain answer. In order to compare feedback from different learners or groups of learners, the candidate should design feedback forms in which learners can score different aspects of the learning on numerical scale.

Candidates may use commercial software such as SurveyMonkey (www.surveymonkey.com) which facilitates design of survey forms and collation and analysis of results.

- assessing success of learning approaches used
- revising learning materials and programme

Candidates should be familiar with the training cycle which is similar to the learning cycle (see Outcome 4)

Identification of training needs → Design of the training and learning programme → Delivery of training and learning programme → Evaluation of training and learning programme → etc



Candidates should use feedback on the learning experience coupled with evidence on learner progress in evaluation of the learning. In particular, the feedback will be used to assess the effectiveness of the design and delivery of the programme. This will feed into revision of those aspects of the learning programme which were judged to be less than satisfactory. Thus a cycle of continuous improvement is established.

Guidance on the delivery and assessment of this Unit

This Unit is part of the Diploma/Advanced Diploma in Applications of ICT in Libraries. This Unit provides knowledge and skills on designing, producing and delivering educational material. These skills further advance the studies in SLIC 3, Supporting Clients to Ensure Effective Learning. This unit should be delivered after candidates have undertaken SLIC 3.

The assessment consists of one extended case study which provides evidence for all five of the unit outcomes, plus an essay of 500 — 1,000 words which provides additional evidence for Outcome 2. There are no obvious opportunities to integrate the assessment for this unit with that for other units in the Diploma.

Higher National Unit specification: support notes (cont)

Unit title: Applications of ICT in Libraries: Carrying Out the Educator Role

The conditions for assessment are lightly controlled. It is therefore important that assessors take steps to authenticate the assessment material as the candidate's own, unaided work.

Open learning

If this Unit is delivered by open or distance learning methods, additional planning and resources may be required for candidate support, assessment and quality assurance.

A combination of new and traditional authentication tools may have to be devised for assessment and re-assessment purposes.

For further information and advice, please see *Assessment and Quality Assurance for Open and Distance Learning* (SQA, February 2001 — publication code A1030).

Candidates with additional support needs

This Unit specification is intended to ensure that there are no artificial barriers to learning or assessment. The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative Outcomes for Units. For information on these, please refer to the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs*, which is available on the SQA website www.sqa.org.uk.

General information for candidates

Unit title: Applications of ICT in Libraries: Carrying Out the Educator Role

The purpose of this Unit is to develop skills in design and delivery of training on ICT related topics.

The Unit is suitable for staff in public libraries who deliver training on ICT related topics to colleagues or clients.

On completion of the Unit you will be able to:

- 1 Establish ICT training needs for individuals and groups.
- 2 Select a delivery approach which takes account of learner's preferred learning style and is appropriate for learning content.
- 3 Design learning materials and programmes on ICT related topics.
- 4 Utilise appropriate skills to support individuals and groups in their use of learning materials and programmes on ICT related topics.
- 5 Evaluate and revise learning materials and programmes on ICT related topics.

You will gain hands-on experience of interacting with learning groups, establishing their learning requirements, selecting learning approaches, creating learning materials, delivering training, providing support during the learning and evaluating the learning programme. This will be done in a real work environment.

The unit is assessed by means of a logbook and an account. These will be related to typical learning situations of individuals or groups undertaking ICT related training in public libraries.

Examples are:

Logbook topic:

You are working at supervisory level in a community library of a large authority. You have recently undergone training in the use of software which can be used to generate questionnaires and analyse data, eg for use in customer satisfaction surveys. You have been asked to cascade this training to colleagues in other community libraries. You will carry out training needs analysis, choose a learning strategy, create learning materials, deliver and evaluate the training.

Account topic:

Motivation problems with in-house training.