

Higher National Unit Specification

General information for centres

Unit title: Applications of ICT in Libraries: Locating Information on Behalf of Clients

Unit code: DP5C 34

Unit purpose: The purpose of this unit is to guide candidates to work logically through the steps of a reference enquiry, typical for a public library, using Internet resources.

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

- 1 Define the precise nature of the enquiry in conjunction with the client.
- 2 Create a search strategy to fully satisfy the enquiry.
- 3 Evaluate the results of the search in terms of validity of information found and its appropriateness in meeting the client's needs.

Credit points and level: 1 HN Credit at SCQF level 7: (8 SCQF credit points at SCQF level 7*)

**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 Communication at Intermediate 2, Information Technology at Intermediate 2 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 Four short searches, requiring a single piece of information to satisfy the enquiry. The four enquiries should show variety in terms of the subject area and the type of websites returning the information.

and

General information for centres (cont)

- 2 One extended search requiring a minimum of three pieces of information to satisfy the enquiry eg: to show development over time; to demonstrate contrasting viewpoints.

The two activities will have equal assessment weighting.

The candidate's evidence should be in the form of a log book recording his/her actions, decisions and the progress of each enquiry, supplemented by a record of the results of the search, as presented to the client. The logbook may be in print or electronic format and must be authenticated by the tutor or mentor.

For each enquiry candidates should present evidence to prove that they have addressed the skills and knowledge in each of the three 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.

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 7.

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

Define the precise nature of the enquiry in conjunction with the client

Knowledge and/or skills

- ◆ reference interview techniques
- ◆ open and closed questions
- ◆ nature of the information to be provided — quantity, level, format
- ◆ constraints — deadlines for completion, currency of information and language

Outcome 2

Create a search strategy to fully satisfy the client's enquiry

Knowledge and/or skills

- ◆ Choice of search terms
- ◆ Structure of search
- ◆ Common search engines
- ◆ Directories
- ◆ Meta crawlers
- ◆ Portals
- ◆ Bibliographic databases

Outcome 3

Evaluate the results of the search in terms of validity of information found and its appropriateness in meeting the client's needs

Knowledge and/or skills

- ◆ Validity of information — reliability, accuracy and currency
- ◆ Success of search in terms of client's requirements — sufficiency, format and language
- ◆ Search results for presentation to client, structure, storage, retrieval, future updating

Higher National Unit specification: statement of standards (cont)

Unit title: Applications of ICT in Libraries: Locating Information on Behalf of Clients

Evidence Requirements for the Unit

Logbook

The log must successfully record the following:

- 1 Four short searches, requiring a single piece of information to satisfy the enquiry. The four searches should show variety in terms of the subject area and the type of websites returning the information.

and
- 2 One extended search requiring a minimum of three pieces of information to satisfy the enquiry eg to show development over time; to demonstrate contrasting viewpoints.

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 and client after the searches have been completed.

For each of the five searches the logbook must record successful completion of all three of the tasks listed below:

Task 1: Reference interview

This should be carried out using the interviewing techniques (including open and closed questioning) referred to in Outcome 1.

- ◆ Determining the nature of information to be provided
 - quantity
 - level
 - format
- ◆ Determining constraints of the search
 - deadlines for completion
 - currency of information
 - language restriction
- ◆ Determining prior research on the topic by client
- ◆ Recording contact details for client

Higher National Unit specification: statement of standards (cont)

Unit title: Applications of ICT in Libraries: Locating Information on Behalf of Clients

Task 2: The search

- ◆ Choice of search terms
- ◆ Search strategy
 - choice of search engines, metacrawlers, portals, directories, bibliographic databases (as appropriate for the search)
 - use of search facilities with chosen search terms

Task 3: Evaluation

- ◆ Validity of information
 - reliability
 - accuracy
 - currency
- ◆ Meeting client requirements
 - sufficiency
 - format
 - language
 - currency
 - meeting deadline

Record of Search Results

The actual results of the search as presented to the client.

Assessment guidelines for the Unit

All the searches should, if possible, be undertaken in a real environment with real clients. However, it is permissible for the four short searches to be undertaken through simulation with the tutor or mentor role-playing the client. No simulation is allowed for the extended search.

Candidates may present the logbook in print or electronic format. The record of search results should be in the format in which it was presented by the candidate to the client.

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

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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: Locating Information on Behalf of Clients

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 40 hours.

Guidance on the content and context for this Unit

This Unit may be delivered stand-alone or as part of a Professional Development Award in Applications of ICT in Libraries. It is designed for para-professional and professional staff in front-line posts in public libraries whose job roles call for them to undertake ICT information searches on behalf of clients. The aim of the unit is to develop candidates' skills in reference and enquiry techniques relating to ICT information searching. This is an introductory unit involving straightforward information searches. It should be undertaken before candidates progress to DP5H 34 Applications of ICT in Libraries: Carrying Out the Net Navigator Role which covers more complex searches. Outcomes 1, 2 and 3 describe the logical progression of an enquiry and should be undertaken in sequential order.

Outcome 1 relates to the initial definition of information required by the client. The candidate may conduct the reference interview with the client face-to-face, by telephone or through an exchange of e-mails. Whichever means of communication are used, the reference interview is a two-way interaction, with the candidate taking responsibility for the efficiency of the communication process. At the end of the reference interview the candidate should be confident that the nature of the enquiry has been fully explored and that information required by the client has been specifically defined.

Each of the knowledge and/or skills statements is now described further.

◆ Reference interview techniques

Good communication skills are key to the reference interview. This outcome provides a good opportunity for candidates to practise and refine their communication skills.

Candidates are expected to use language which is appropriate to the client (neither too specialised, too jargonistic nor too simplistic). In face-to-face situations, candidates should also demonstrate appropriate body language designed to set the client at ease and promote effective communication. In telephone communication candidates should use appropriate feedback techniques to ensure their understanding of the client's responses, in the absence of clues from body language. Written communication in e-mails should demonstrate the use of clear, grammatical language in well-structured communications.

While recognising that some clients may be unwilling to give this information, it is helpful if candidates can establish the reason why the client wishes the information requested. "For example, if a client is seeking medical information, the candidate should seek to ascertain whether the client is a medical professional, a student, a patient or a relative of a patient.

Higher National Unit specification: support notes (cont)

Unit title: Applications of ICT in Libraries: Locating Information on Behalf of Clients

It is important for the candidate to ascertain the “starting point” of the enquiry in order to avoid time being wasted on finding information which the client already knows.

Candidates should also seek to determine whether the client has already undertaken any research on the topic and what the results of this were. This can give guidance on successful and unsuccessful information searching approaches.

The reference interview provides the opportunity to establish any special needs of the client eg: visual or auditory impairment.

- ◆ open and closed questions

Candidates should understand the purposes of open and closed questions and the circumstances in which it is appropriate to use them. Open questions encourage longer answers and their main uses in the reference interview context are to:

- ◆ establish rapport with the client
- ◆ set the scene for the enquiry
- ◆ gain background information which is relevant to the enquiry

Closed questions prompt yes/no or short factual answers and their main uses in the reference interview context are to:

- ◆ elicit specific pieces of information from the client
- ◆ gain confirmation that the candidate’s understanding of what the client has said is correct
- ◆ Determining the nature of information to be provided — quantity, level, format

Quantity — what appears to be the same request for information could produce results differing in quantity by orders of magnitude. Candidates must clarify the scale of information required by the client in order to fully satisfy their needs.

Level — may be determined by client’s age, education, specialist knowledge, linguistic ability.

Format — may include information to be viewed on screen by client, printouts, audio or video.

The search results may be bibliographies or lists of website references for the client to follow up. If the search is not carried out with the client present, candidates must ascertain if the client can visit the library at a later time to access the search results or if the information must be in a format which can be e-mailed or posted to the client.

- ◆ Constraints — deadlines for completion, currency of information and language

Candidates should understand the importance of gauging the urgency of the enquiry. This can range from enquiries where information is required instantly through to those where the results may be presented after some time has elapsed.

Higher National Unit specification: support notes (cont)

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The candidate should agree with the client on the deadline for completion of the enquiry and also on the action to be taken should this deadline fail to be met for any reason.

The candidate must distinguish between two types of information — dynamic information to be found from regularly updated sources (eg current information on news, weather, government policy, share prices) and static information which could come from sources which have not recently been updated (eg historical dates, biographies of deceased persons).

The candidate should also ensure that the client is aware of the need to use recently updated sources for dynamic information and the implications which this may have in terms of the timescale and cost of the search.

Some information may only be available in languages other than English. The candidate should be certain of the client's fluency in these languages before embarking on the search.

Candidates should be aware that electronic and print reference sources complement one another. Not all enquiries are best served by undertaking an Internet search. At the conclusion of the reference interview candidates should be able to justify their choice of Internet searching as their technique for dealing with the enquiry.

Outcome 2 relates to the ability to choose appropriate key words to use as search terms in an Internet search and to use these in a logically structured search on the client's behalf.

◆ Choice of search terms

Candidates should understand how to analyse a topic and break it down into its component parts. They must also consider whether value might be added to the search if they searched under synonyms or related terms. An example is where the enquirer asks for information on *Diseases affecting babies in Africa*. Obvious key search terms might be — *disease, baby, Africa*. A synonym for disease could be *illness*. And related terms might be names of specific African countries such as *South Africa*.

Candidates should also be familiar with the conventions used to indicate compound terms in the various search engines. For example, inputting "*South Africa*" in quotes gives a search on South Africa as a compound term, whereas without the quotes the search is for web pages containing South and Africa as separate words.

Candidates should appreciate that, where specific information is wanted, searching for names of individuals or organisations or concepts can often be more fruitful than using descriptive terms. With the above search, *World Health Organisation* as a search term leads directly to the WHO site where information on diseases in specific African countries is quickly located.

As well as using search terms in search engines, candidates should also demonstrate their ability to conduct a search within a website using the internal search facility provided by the site. A good example is the search facility within **www.scottish.parliament.uk** which permits searching by subject terms within specific areas of the site and for specified types of documents.

Higher National Unit specification: support notes (cont)

Unit title: Applications of ICT in Libraries: Locating Information on Behalf of Clients

At this level candidates are not expected to use full Boolean logic. This is required in Unit DP5H 34 *Applications of ICT in Libraries: Carrying out the Net Navigator Role*. When using search engines, candidates need only demonstrate competence in the use of the basic search and not the advanced search facilities.

◆ Structuring the search

This involves the choice of different search engines, metacrawlers, directories and portals or, where the candidate is already familiar with appropriate websites and their content, direct interrogation of these.

Candidates should understand that repeating the same search using different search engines may lead to different results due to the way in which the various search engines search the web and order the sites found. Candidates should demonstrate familiarity with sites of major organisations which hold information relating to commonly asked enquiries – such as government departments, their own local authority, major voluntary organisations and organisations of local interest —

www.homeoffice.gov.uk (Home Office); **www.leicester.gov.uk** (Leicester City Council); **www.adviceguide.org.uk** (Citizens Advice for all four UK nations); **www.ulstercancer.org** (the Ulster Cancer Foundation).

Candidates should demonstrate an understanding of implications of the common suffixes used in URLs (while appreciating that there is no absolute fixed rule for the use of some of these). Thus in the examples above, gov.uk always indicates a local or national government site in the UK and org may suggest a non profit-making organisation.

◆ Common search engines, meta crawlers, directories

The candidate must demonstrate an understanding of the differences between the three categories and the way in which each operates. However, several sites now incorporate both a search engine and a directory - candidates should be able to access either the search engine or the directory within the site (eg Yahoo, Google)

Search Engines

The candidate should examine a selection of search engines to show similarities and differences. It can be illustrative to make identical searches on say five engines and observe and attempt to reconcile the different results. Currently Google is the most popular search engine and it is perfectly adequate for the bulk of straightforward searches. A good contrast to Google would be **www.clusty.com** which clusters websites found by category. A search on “organ” using Clusty produces a cluster of sites related to musical organs and another cluster for organs in the medical sense of the word. This can be very helpful for search terms with more than one meaning. At this level it is appropriate for the tutor or mentor to give a simple explanation of how search engines work in indexing sites and their use of metadata. This then feeds back to ‘choice of search terms’ and raises awareness of pitfalls of using ambiguous terms resulting in, at best, many useless results and, at worst, offence.

Higher National Unit specification: support notes (cont)

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Directories

Candidates should understand that web directories are arranged as an alphabetically ordered index to the web developing into a tree structure of levels of sub-categories. These, like portals can be very useful in homing into the general area of a reference search. However there are countless directories, many of which are poorly maintained. This manifests itself with broken links and links to inappropriate material. Candidates should have experience of good and bad examples. General purpose sites are provided by many search engines: Google, MSN and Yahoo are examples. The really useful ones are more focused, such as **www.webdirectory.com** relating to environmental information. Candidates should appreciate that browsing through the tree structure of the directory can be time-consuming and will not automatically lead to a result.

Metacrawlers

Metacrawlers apply the same search to several search engines simultaneously. They come in many forms. **www.dogpile.com** is a good example which can group results in terms of perceived relevance or by search engine. **www.surfmax.com** offers a prompt facility which suggests broader or narrower search terms.

◆ Portals

A portal is a website which offers grouped links leading to information. General purpose portals, such as **www.msn.co.uk** or **www.wannado.co.uk**, often used as home pages by users, have links to life style sites. Some more specialised portals are tailored to be used say, to give a child friendly web experience (eg **www.zeeks.com**) giving relative safety from inappropriate material. Some portals are particularly useful in answering reference enquiries because they are extremely focused. An example is **www.connects.org.uk** which concentrates on learning disabilities.

◆ Bibliographic databases

Bibliographic databases permit the retrieval of information in a variety of formats and media. Some of these are commercial subscription services, eg **www.booksinprint.com** Candidates should be aware which databases their own library subscribes to.

Other bibliographic databases which are free of charge include the catalogues of major libraries – **www.bl.uk** permits searching of the British Library's catalogues containing over 12 million books, serials, printed music and maps; **http://library.cf.ac.uk/** accesses the University of Cardiff catalogue; **http://eclis.edinburgh.gov.uk/www-bin/www_talis32** takes the searcher to the catalogue of the City of Edinburgh Public Library. Booksellers' databases, such as **www.amazon.co.uk** can also be useful sources of bibliographic information.

Candidates should demonstrate the use of at least one commercial and one non-commercial bibliographic database.

Higher National Unit specification: support notes (cont)

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Some libraries may have access to subscribed resources other than bibliographic databases. Where these exist candidates should have the knowledge and capability to use them and should recognise that using these sources gives editorial validity.

Outcome 3 relates to the evaluation of the efficiency and effectiveness of the information search. The candidate must evaluate the results of the search objectively in terms of validity of information found and its appropriateness in meeting the client's needs.

◆ Validity of information - reliability, accuracy and currency

Candidates must understand that information on the Internet presents greater problems regarding reliability than information found in reference books and other materials in public libraries which have undergone a rigorous selection process. So all information found must be critically evaluated. Criteria which may be applied to establish the reliability of a website include:

- Expertise and reputation of the organisations or individuals connected with the website.
- Bias. While such information need not necessarily be excluded from the results presented to the client, the candidate should indicate any identified bias and, if possible, provide information from another source which presents opposing points of view. This is particularly important when the client is seeking information on potentially contentious matters such as politics, religion, race or issues related to pressure groups.
- Emphasis towards one aspect of the search topic. For example, US sites may devote little space to British developments. Another pertinent example is that sites for UK government departments may include information only for England on devolved issues. This differs from bias in that it is omission of information rather than deliberate over-emphasis of one point of view. Candidates should be aware that emphasis can be more difficult to detect than bias and apply the technique of cross checking more than one site.

Accuracy of factual information can usually be assumed to apply to reputable sites but candidates should cross check using more than one site wherever possible.

Candidates must be aware that the "Last updated" date on a website merely indicates the last time a change was made to any part of the website and that it does not imply that all the content was updated on that date. Candidates must therefore use other indications as to the currency of the information. These indications might include publication dates of documents referred to on the site, references to recent news items, dates quoted within text.

◆ Measuring success of search in terms of client's requirements — sufficiency, format and language

Higher National Unit specification: support notes (cont)

Unit title: Applications of ICT in Libraries: Locating Information on Behalf of Clients

The client's requirements should have been clearly specified during the reference interview. At this point the candidate must review the results of the search against these requirements and review the success of the search against these. It should be recognised that it will not be possible in all cases to fully satisfy the client's requirements.

If this is the case, the reasons for this must be explained to the client eg: information does not exist in the format specified. The candidate should propose some alternatives if this is possible.

- ◆ Structuring and saving of search results for presentation to client, later retrieval, future updating

The raw data should be presented in a structured way which facilitates understanding by the client. In particular, it is important for the client to be informed of the source(s) of the information found.

The search results should be archived in such a way that the search can be retrieved by appropriate key terms. These might be subject key words or enquirer identifier. It is important that the candidate saves not just the search results but also the search strategy. This strategy will be required if the search is to be repeated at a later date in order to update the information found. The candidate should understand the reasons why the information might be retrieved in future - another enquirer may request essentially the same information or the original enquirer may wish updated information.

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 basic knowledge and skills on information searching on the Internet. These skills underpin the more advanced searching in DP5H 34 Applications of ICT in Libraries: Carrying out the Net Navigator Role. This unit should be delivered prior to candidates undertaking DP5H 34 Applications of ICT in Libraries: Carrying out the Net Navigator Role.

Candidates must have free access to the Internet in order to undertake this unit. Broadband access is preferable but not essential.

The assessment consists of four short searches and one extended search, each of which provides evidence for all three of the unit outcomes. There are no obvious opportunities to integrate the assessment for this unit with that for other units in the Diploma.

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.

Higher National Unit specification: support notes (cont)

Unit title: Applications of ICT in Libraries: Locating Information on Behalf of Clients

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: Locating Information on Behalf of Clients

The purpose of this Unit is to develop skills in working logically through the steps of a reference enquiry, typical for a public library, using Internet resources.

The Unit is suitable for staff in public libraries who deal with information enquiries from clients.

On completion of the Unit you will be able to:

- 1 Define the precise nature of the enquiry in conjunction with the client.
- 2 Create a search strategy to fully satisfy the enquiry.
- 3 Evaluate the results of the search in terms of validity of information found and its appropriateness in meeting the client's needs.

You will gain hands on experience of interacting with library clients and establishing their information needs and using the Internet to search for the required information. This will be done in a real library environment.

The unit is assessed through four short searches and one extended search. These will be searches related to typical information needs of public library clients.

Some examples are:

Short Searches — finding out:

- ◆ the current community charge rates in your locality
- ◆ the sequel to a novel which the client has recently read
- ◆ the post code of a firm for which the client knows name, street and town
- ◆ whether UK citizens require a visa to visit Thailand

Extended Search

A client wishes to explore the topic of asylum seekers in Britain. You would produce information giving Government policy, views of other political parties, statistics on immigration etc.