

HOW PASSION AND PERSEVERANCE STEERED THE COURSE TOWARDS A UNIVERSITY'S INFORMATION LITERACY FRAMEWORK

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This paper will provide an outline of how an Information Literacy Framework evolved out of research which was undertaken at a British university. This research, which was to assess faculty perceptions of information literacy, also raised awareness about the topic. From that basis, an Information Literacy Framework was designed and went through the due process of the university's committees' approval in order to become established as a document to inform curriculum development. The 'passion' represents the author's feelings about information literacy and the 'perseverance' refers to the time and efforts necessary to incorporate the framework within the culture of the university!

This research was first undertaken in March 2004, as the dissertation for an MBA in Educational Management. The research was conducted at De Montfort University, which was then a three-campus university based in Leicester and Bedford (UK). It had approximately 19,000 students and 1,600 academic teaching staff and was divided into 6 faculties:

- Art and Design
- Business and Law
- Computing Sciences and Engineering
- Education and Contemporary Studies
- Health and Life Sciences
- Humanities.

The research was undertaken in order to ascertain:

- Faculty perceptions of information literacy
- To what extent Library Services' teaching was meeting the needs of courses.

Questionnaires were sent out to 478 module leaders, within the final year of undergraduate courses, across all faculties and campuses. (A module leader is the member of faculty responsible for the co-ordination of the module). 98 questionnaires were completed giving a 21% response rate.

In order to test the faculty's perceptions of information literacy, they were asked to what extent they agreed with the statement - "*An information literate student is one who can recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information*". This statement was based upon the definition produced by the American Library Association (1989). The faculty were also asked whether they felt that an undergraduate student should have achieved this state by the end of their course. In addition, faculty were requested to identify which of the seven skills from the SCONUL 'Seven Pillars of Wisdom' model (Society of College, University and National Libraries, 1999) were:

- A) Important for students to have **acquired** by the end of their course
- B) Specifically **taught** on final year modules
- C) **Developed through student centered learning** on final year modules
- D) **Assessed** on final year modules.

(This model was produced specifically for Higher Education and aimed to stimulate debate about the place of information skills in the context of 'graduateness', employability and lifelong learning.)

There was an overall 91% acceptance of these seven skills as being important for students to have acquired by the end of their course. However, the most disturbing result from the research was that so little was done to equip students with these skills whether by direct teaching, through student centered learning or assessment. The questionnaire results show that there is only an average 55% level of activity to support the development of these skills with students in their final year (Table 1).

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TABLE 1

	SKILLS	A)	B)	C)	D)
1	The ability to recognize a need for information.	97%	49%	58%	47%
2	The ability to distinguish ways in which the information “gap” may be addressed, e.g. knowledge of appropriate and relevant resources.	91%	53%	58%	38%
3	The ability to construct strategies for locating information, e.g. to develop a systematic method appropriate for the need.	89%	48%	54%	49%
4	The ability to locate and access information, e.g. to use appropriate indexing and abstracting services, citation indexes and databases.	92%	46%	60%	43%
5	The ability to compare and evaluate information obtained from different sources, e.g. awareness of bias and authority issues.	91%	59%	59%	72%
6	The ability to organize, apply and communicate information to others in ways appropriate to the situation, e.g. to cite bibliographic references in project reports and dissertations.	94%	71%	55%	78%
7	The ability to synthesize and build upon existing information, contributing to the creation of new knowledge.	85%	48%	57%	60%
	Average responses to seven skills overall	91%	53%	57%	55%

Looking at specific skills, Skill 6, which includes citation referencing, is the most commonly taught and assessed skill. This is not surprising at this stage in an undergraduate degree program. Skill 4, locating and accessing information, is the least taught and not often assessed. However, it is ranked third highest in the skills that academic staff wish their students to have acquired. This is, of course, a skill that librarians are well accomplished at teaching.

The research was repeated with Architecture faculty, in April 2005 (response rate 75%), and Art & Design faculty in January 2006 (response rate 26%). In these studies, the definition of information literacy produced by the British professional association – the Chartered Institute of Library & Information Professionals (CILIP) – was used. “*Knowing when and why you need information, where to find it, and how to evaluate, use and communicate it in an ethical manner*” (CILIP, 2004). The findings were similar to the main survey in that, whilst the skills are highly valued by staff, there are lower levels of activity in terms of incorporating them into teaching, learning and assessment.

Having raised academic staff awareness of what is information literacy, it was decided to develop an Information Literacy Framework. Support for this initiative was provided by the Library’s Senior Management Team and a member of that team became involved in drafting the framework. It was envisioned that the framework should be a model to engage campus stakeholders in information literacy and define responsibilities. It was intended that the framework should be used as a basis for:

- Getting information skills contextualised, and possibly assessed, especially within the University’s newly-acquired Blackboard course management system

- Progressing information literacy’s place within the curriculum taking it from generic --> parallel --> integrated --> embedded
- Providing more opportunities for academics to become *information literate* themselves.

As the initial research had shown there to be an overall acceptance of the skills within the ‘Seven Pillars of Wisdom’, it was felt that this should be the basis of the framework. At the outset, it was described as a ‘strategy’ but it was decided that ‘framework’ sounded more flexible as something which could be adapted to the needs of different subject disciplines.

The framework was discussed within the university library and the opinions of ‘critical friends’ from amongst the faculty also influenced the development. The final version of the framework (see Appendix) was designed to match the style of a course or module template, as this was a format which was well known to faculty. It consisted of:

- Introduction – describing what information literacy is and its importance within higher education. It was essential that the framework was linked with the University’s Learning, Teaching and Assessment Strategy and included some key ‘buzz’ words such as: plagiarism, employability and collaboration.
- Learning Outcomes – seven outcomes based on the SCONUL ‘Seven Pillars of Wisdom’ model.
- Skills – seven sets of skills to meet the learning outcomes.
- Learning, Teaching and Assessment Exemplars – examples of good information literacy practice from each of the university’s six faculties.

The Information Literacy Framework was then taken to each of the Faculty Learning and Teaching Committees for approval. This process took almost a year as some departments did not meet that frequently or already had full agendas. The framework met with general approval and there were few amendments. Finally, the framework was approved by the University Learning and Teaching Committee in May 2006.

The document was intended as a basis for subject librarians to work collaboratively with faculty to incorporate information skills into course curricula. The best success story, in this use of the framework, was with the School of Engineering which was previously uncharted waters! Their interest in the framework resulted in a 300% increase in information skills teaching on Engineering courses!

The framework was promoted in a variety of ways but the greatest push was given through its inclusion in the university's new Program Developer's Handbook, instigated by the Department for Academic Quality. In this Handbook, they gave the CILIP definition of information literacy and the reasons for its importance. The framework was shown in its entirety and faculty were directed to engage in dialogue with their subject librarians to incorporate the skills into the curricula for new programs. As Lindstrom and Shonrock (2006, p. 22) commented in their article on collaborative work between librarians and faculty, "The most far-reaching efforts are those where library and university administrators have recognized the importance of information literacy and have set institutional rather than library-centric objectives ..."

Hopefully, the experience of one university can provide a tried and tested route for others to follow. In summary, if you would like some tips for a successful voyage, from an 'old sea dog', then you need to:

- Raise awareness subtly – start influencing some key players in the approval process
- Collaborate with 'friends' from faculty and other

- areas, such as Writing or Tutoring Centers
- Align with institutional policies, such as the Mission or a Learning and Teaching Strategy
- Make sure that you use the language of faculty, rather than that of librarians
- Keep it short!

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APPENDIX

Department of Library Services: Information Literacy Framework

INTRODUCTION

“Information literacy is knowing when and why you need information, where to find it, and how to evaluate, use and communicate it in an ethical manner.” (CILIP 2004)

It is critical that graduates are information literate to survive in a world of rapidly changing knowledge. University courses supply the theoretical constructs of a subject but graduates must have the means to extend and refresh subject knowledge. A high level of information literacy can ensure that a student is employable not just at graduation but throughout a professional career.

The Department of Library Services is keen to support the development of independent and autonomous learners within and beyond the curriculum. Modules could incorporate compulsory elements to develop information literacy at appropriate levels. (Some examples of present practice are given in the Learning, Teaching and Assessment Exemplars.) Such an initiative should be seen as integral to learning and assessment, exactly in the spirit of the Learning, Teaching and Assessment Strategy, which suggests a variety of teaching techniques, the encouragement of intellectual flexibility, and the acquisition of key skills to increase the employability of graduates.

The most effective way of developing information

literacy (and thus enhancing academic practice and employability) is through forming collaborative working partnerships between tutors, librarians and learning development staff to establish information literacy, as a learning outcome, in the undergraduate curriculum. A key objective would be to ensure that students present information ethically, avoiding the trap of plagiarism.

The purpose of this paper is to introduce academic staff to our current thinking on information literacy and to suggest ways in which colleagues might work together to incorporate this increasingly important element into the undergraduate curriculum.

The framework below lists the information literacy learning outcomes which each graduate should achieve, along with the skills associated with each outcome. It is recognised that individual subject disciplines will incorporate information literacy in different ways but, for guidance, examples of relevant current practice are given in the learning, teaching and assessment exemplars. It is suggested that academic staff liaise with subject librarians to discuss their needs and requirements for information skills development.

CILIP (2004) *Information literacy: definition* [WWW] London, Chartered Institute of Information Professionals. Available from: <http://www.cilip.org.uk/professionalguidance/informationliteracy/definition/> [Accessed 24/01/05]

INFORMATION LITERACY FRAMEWORK

1. Learning Outcomes

1	Recognise a need for information
2	Identify potential sources of information
3	Construct strategies for locating information
4	Locate and access information
5	Compare and evaluate information obtained from different sources
6	Organise, apply and communicate information appropriately
7	Synthesise and build on existing information, contributing to the creation of new knowledge

2. Skills

1	<p>Understanding of why, and what kind of, information is needed.</p> <p>Knowledge of any constraints, e.g. time, format, access.</p> <p>Ability to redefine/modify the information sought on basis of material needed for a major project/dissertation.</p>
2	<p>Understanding of characteristics of different information resources, e.g. books, journals, newspapers, Internet, reference material.</p> <p>Awareness of different formats for providing information, e.g. print, electronic, human.</p> <p>Awareness of material 'fit for purpose'.</p> <p>Ability to select the most appropriate sources for an essay/project without guidance.</p>
3	<p>Ability to define keywords to describe a topic and to obtain the best results.</p> <p>Ability to choose a range of indexes and databases to undertake a major project/dissertation.</p> <p>Ability to select a range of Internet gateways and search engines to find web resources at an appropriate research level.</p> <p>Ability to distinguish between and select the most appropriate search tools.</p>
4	<p>Ability to use a library catalogue, bibliographic databases, Internet gateways and search engines to locate relevant material.</p> <p>Understanding of how material is arranged to facilitate retrieval.</p> <p>Understanding of electronic access on and off campus.</p> <p>Ability to construct complex searches across a range of databases, using truncation, field limitations and Boolean search techniques.</p> <p>Ability to access other libraries and use interlibrary loans service.</p> <p>Understanding of components of a citation.</p>
5	<p>Awareness of issues of currency, bias and authority.</p> <p>Understanding of issues of relevancy, accuracy and comprehensiveness.</p> <p>Ability to extract relevant data and to capture it by making notes, printing or downloading.</p> <p>Recognise need for further research.</p> <p>Awareness of peer review process in journals.</p> <p>Ability to read, analyse and evaluate a wide range of materials appropriate for a major project/dissertation.</p>
6	<p>Ability to communicate information in appropriate formats.</p> <p>Ability to keep records of searches and resources found.</p> <p>Ability to cite printed and electronic sources and to create a reference list.</p> <p>Understanding of copyright and plagiarism.</p> <p>Understanding of variations between referencing systems.</p>
7	<p>Understanding that existing information can be combined with original thought, experiment and analysis to create new information.</p> <p>Ability to create new knowledge in a major project/dissertation through synthesis and development of existing information.</p>

Learning, Teaching and Assessment Exemplars

Art & Design

In conjunction with the Course Leader, the subject librarian for Design Management has devised an information literacy programme which takes place in weeks 17-18 (DMCM 1503) at Level 1, week 2 (DMCM 2501) at Level 2 and in week 29 (DMCM 2501) to prepare for Level 3. The sessions have been designed to ensure the contextualisation of information skills, within the course, with students searching for information in both design and management contexts.

Business & Law

All Accounting Level 1 students take CORP1505 Business Skills for Accountants. As well as covering use of spreadsheets and professional accounting packages, module content includes how to research companies, contextualised in a broader awareness of Internet and information-seeking behaviour. The Internet and company research elements are taught by library Academic Services staff. Content highlights the relevance of these research skills to the curriculum, the difference between Internet use for leisure and work and also emphasises how these skills are essential in professional accounting practice.

Computing Sciences & Engineering

The Library contributes to the teaching of a Research in Computing module (COMP 2006) which is provided to students converting from HND to BSc, some of whom are from Associate Colleges. Sessions are devised to equip students with the skills to:

- Devise a literature search strategy
- Recognise the main processes of locating and accessing information (including the use of research sources, reference material, abstracts and indexes and the Internet)
- Critically evaluate and select information which will help them with a particular task.

The information skills are thus contextualised within the research for their final year project.

Education & Contemporary Studies

All Sport and Adventure Recreation 1st year students undertake module SPOB 1105 (Introduction to Methods of Inquiry). Students within Sport are expected to find and use journal articles immediately for their modules so the library runs workshops for them focusing on:

- Finding information on reading lists
- Using print journals and linking to electronic journals
- Finding useful information for essays/assignments.

The library workshop is organised with academic staff and supports the content of the first part of this module which introduces the students into studying at university level.

Health & Life Sciences

The Library contributes to the teaching of Professional Skills modules (CHEM 1061 and CHEM 2060) with a formal assessment undertaken. Sessions generally cover:

- How to tackle an assignment
- Using databases to find journal articles
- Using the Internet for research
- Citation referencing.

The Library teaching has been incorporated into Blackboard with online assessment.

Humanities

The faculty has an embedded approach to the development of academic skills, and uses a combination of in-module lectures and/or seminars alongside an extended library induction programme. As part of their induction, students are expected to attend a library workshop which covers key information skills, including using the catalogue and using electronic journals. Within subject modules library staff and the Academic Guidance team run contextualised sessions, for example modelling through the research process for a specific assignment in History or Politics.