

# Which key skills? Marketing Graduates and Information literacy

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## Abstract

Key skills have been much debated within higher education yet little literature explores information literacy as a skill and how it can be embedded within undergraduate programmes. This paper explores the concept of information literacy (as opposed to Communication and Information Technology skills) and argues for its inclusion within the undergraduate curriculum and, specifically, within a Marketing curriculum given the significance of information, its management and application. The focus of the paper is upon collaborative research undertaken at Edge Hill College of Higher Education by an academic subject area and central learning services to embed information skills through learning and teaching strategies. The research also includes student evaluation and responses to these learning and teaching methods and to information literacy skills. The paper's key findings demonstrate the centrality of information skills for a Marketing curriculum, the application of a collaborative working model and suggest how these changes in learning and teaching strategies have led to improvements in student skills and awareness.

Key words: Information literacy, key skills, marketing graduates, learning and teaching strategies.

## Introduction

Finding information ought to be easy (Webber 2001), particularly with the recent explosion of electronic information. It is this very increase, however, which has contributed to the rise in concern for information literacy skills across higher education. Nowhere should this be felt more keenly than within Marketing courses where information – its selection, critical evaluation, management and manipulation – is crucial to academic and professional development and success. This paper explores the significance of information literacy as a key skill within an undergraduate marketing programme, discusses a model of embedding such skills and considers the impact on the student experience of changing learning and teaching strategies. It argues that information literacy should be recognised as a core key skill, particularly in relation to Marketing graduates and not simply subsumed within Communication and Information Technology skills (C&IT).

This paper details the research undertaken at Edge Hill College of Higher Education to embed information literacy skills within an undergraduate marketing programme through a partnership between Information and Media Services (IMS) and the Business,

Management and Leisure (BML) subject area. This is an ongoing project and only the first year's results are explored and evaluated in this paper. This part of the collaborative project was carried out over a period of one year (1999-2000) with a group of 69 full- and part-time students. The objectives of the project were to:

- identify and define the concept of marketing graduate skills with specific reference to information literacy;
- redesign the marketing module, particularly the learning and teaching strategies, to integrate these skills;
- analyse and evaluate the effectiveness of these strategies;
- evaluate the collaboration between IMS and BML in supporting the development of effective teaching and learning strategies.

## Why information literacy?

As part of the quality assurance framework for higher education (QAA 1998), the Benchmark Standards identify graduate skills' categories of effective learning; critical thinking; information retrieval and selection; communication and presentation; interactive, group and subject-specific. The key aspect of graduate skills is that they are generic and can

transfer across occupational groups and contexts (Dearing 1997).

The term 'skills' may denote routine activities or infer a degree of repetitiveness in performing tasks and a limited ability to apply these skills to another setting. The term 'transferable and intellectual personal skills' implies broader, more cognitive capabilities which enable a graduate to apply them to new social and technical contexts. Assiter (1995) argues convincingly that higher education is about the struggle to know and knowing is about the application and use of knowledge and the development of students' critical abilities. Consequently, the opportunity for students to develop and apply such skills as problem solving, information literacy and communication skills, are "... integral to the struggle to know" (Assiter 1995,5). In effect, information literacy transcends these skills' categories and is not solely confined to information retrieval and selection.

There are many definitions of information literacy; the definition produced by the American Library Association is often quoted, "... (to) recognise when information is needed and have the ability to locate, evaluate, and use effectively the needed information" (Webber 2001). It should also be stressed that information literacy does not equal C&IT literacy. As Webber (2001) highlights, the focus on C&IT can limit the ways information literacy is taught and embedded within the curriculum. Research by Bruce (1999) focuses on information literacy rather than C&IT skills, "... as information technology becomes more seamless and user-friendly, it is likely that attention will shift more clearly to questions of how people are actually interacting with, and using, the information which technology makes available." Moreover, Bruce sees information literacy as a significant part of the character of learning organisations and, while C&IT generically has been highlighted as a core graduate skill (Dearing 1997), less emphasis has been placed on information literacy. Information literacy skills are increasingly being viewed as a fundamental part of becoming an effective, autonomous learner and an active employee within a learning organisation. Bruce's view of information literacy as a component of a learning organisation is reflected in employers'

concerns regarding graduates, in that, "... whilst new recruits may have the expected knowledge and understanding, they display a serious inability to apply that knowledge effectively to real workplace situations" (DfEE 1998: 30).

In a more competitive global marketplace, knowledge rapidly becomes outdated and obsolete. Graduates will, therefore, need to take responsibility for developing a lifelong commitment to learning and personal development (Hawkins and Winter 1995) and will need the necessary skills to identify information needs and critically evaluate and manage knowledge obsolescence and information. The ability to retrieve and select appropriate information using C&IT to guide further learning experience, can support active and engaged learning (Brockbank and McGill 1998, 48) and transfer skill development to other subjects within education. This can be seen as even more crucial to Marketing graduates, whose prime commodity in the workplace will be information.

### **The impact of electronic information**

The World Wide Web is now clearly seen as offering great potential in supporting learning and has transformed library provision and access to resources, particularly through remote access to full-text journals and databases but with consequences in terms of information literacy and research skills.

Recent JISC (Joint Information Systems Committee) research, *JISC User behaviour and monitoring framework* (Rowley 2000), highlights the poor use of electronic information in higher education and the need to develop information literacy skills amongst undergraduates as a crucial lifelong learning skill. The research suggests that Electronic Information Services (EIS) are not extensively used by staff and students in higher education and are not being integrated into the curriculum. In a survey of more than 100 Year 1 undergraduates only 0.98% used electronic journals, with this figure rising to 3.87% for other student years. In order to embed these electronic resources and develop student skills, JISC recommends liaison between all stakeholders and that EIS

are embedded in course design and delivery; they suggest that this can only be achieved through collaborative approaches between central learning support staff and academics. Svensson (1984) argues that study skills are essentially superficial and reflect surface approaches to learning and have been "... peripheral aspects of the activity of studying" (68), whereas a programme which embeds learning-to-learn skills within subjects or modules is more effective and perhaps better attended (Zuber-Skerritt 1992).

With specific reference to the use of library facilities and the importance of information literacy, research undertaken for the Library and Information Commission identified that barriers to both the library and the use of C&IT were "... created by non-existent or low levels of literacy and numeracy skills" (Hull 2000, 12). Poor or basic literacy levels can be a factor in determining how effectively the student interfaces with C&IT and whether appropriate, relevant information is retrieved. In addition, students may feel excluded from making effective use of C&IT and library facilities for lack of technical ability and sociological reasons.

This current information environment raises a whole new set of issues and challenges for students, teaching and support staff. Consequently, information literacy can be viewed as a core professional and life skill, bringing together C&IT, navigation, information retrieval, selection, management and critical analysis.

### **Embedding key skills: the context**

Edge Hill is a higher education institution in the North West of England. Business, Management and Leisure is a growing subject area with 570 students. Emphasis within all BML programmes is on the development of transferable graduate skills, principally through work-based learning but these skills have not necessarily been embedded and evaluated. The specific focus of this research is the "International Strategic Marketing" module at Level 3 (final year) for both full-time and part-time students.

Information and Media Services (IMS) is a converged learning services provider based

on three sites and encompassing C&IT, library and media facilities and electronic resources. In the past two years, a strong culture of learning support and active curriculum involvement has been developed, in keeping with the wider learning support ethos within Edge Hill. This is reflected in a generic programme of skills' support and in diverse curriculum involvement, ranging from basic C&IT skills' support to specialist software and from subject research skills to information management. Edge Hill has not introduced generic skills' modules within degree programmes, believing that skills should be embedded within the subjects and mapped across them. Consequently, responsibility lies with the subject areas as to the best way forward, with considerable support available from central services. In order to embed information literacy fully within the marketing curriculum, a collaborative approach was taken between BML lecturers and central learning support staff, specifically IMS.

IMS wish to integrate the use of electronic learning resources within programmes in order to promote full utilisation and to enhance the students' learning experiences. BML wish to develop transferable graduate skills and improve student academic performance. These objectives are clearly compatible. Edge Hill's *Learning and Teaching Strategy* (Edge Hill 1999) highlights the need to support the increase of student self-confidence, self-reliance and autonomous learning. Clearly, information literacy skills play a significant role in this and "... all courses and programmes will assist students in developing a full range of key skills and lifelong learning skills, alongside subject knowledge and skills" (Edge Hill, 1999:6). This is married with a commitment to continued development of the learning infrastructure, including the effective harnessing of the World Wide Web as a pedagogic tool and the further development of central Learning Support Services.

Edge Hill's Graduate Skills draw on those identified in the Benchmark Standards as part of the quality assurance framework for higher education (QAA 1998). The categories are: effective learning; critical thinking; information retrieval and selection; communication and presentation; interactive and group and subject specific skills. Table 1 shows

Effective Learning Skills	Information Retrieval & Selection Skills
<i>Making best use of all learning opportunities; understanding the use of common teaching opportunities; understand the use of communication &amp; information technology (CIT) in developing &amp; supporting learning.</i>	<i>Constructing search strategies Accessing information via library catalogue: journal searches; CD-Roms, on-line databases, www searches.</i>
Understanding the context and meaning of study in higher education; the personal responsibility of the student for learning; the roles of tutors & of learning support services.	<i>Retrieving the information and data in whatever form it is stored, and storing that data effectively.</i>
Developing autonomy in learning; learning independently; self-appraisal; reflection on learning.	<i>Judging the relevance &amp; appropriateness of the information accessed &amp; extracted.</i>
Managing own learning; planning learning; time management; recording learning & action-planning for future learning.	
Improving own study skill techniques; effective reading; effective note-taking, revision techniques.	

**Table 1: Edge Hill Key Skills for Graduates adopted in 1998 (Edge Hill, 1998)**

effective learning and information retrieval and selection skills.

### Information Literacy and Marketing Undergraduates

Marketing students need to be encouraged to develop effective learning skills and, in particular, those relating to the use of C&IT in retrieving and selecting information pertinent to marketing. They must be able to identify what type of information is needed from the internal and external environment; know how to access market intelligence; structure it, using information systems and use it to make strategic and tactical decisions. These skills are shown in Table1 in italic.

Diverse strategies for embedding information literacy were adopted within the “International Strategic Marketing” module. These strategies can be summarised as:

- development of web-based electronic resources, printed support materials and

guidance for use both in seminars and independently by students;

- structured learning experiences through specific skills-based sessions (but still within the subject context) delivered jointly by the collaborators and based on experiential learning theory;
- integration of electronic information sources awareness; use and critical evaluation throughout the specific module;
- clear links between assessment and information literacy skills.

It should be stressed that, while these strategies focus on a Level 3 module, information literacy skills are introduced from Year 1 but at a basic level and in a more generic way. It was necessary to provide the sessions as early as possible in the final year to provide students with greater learning opportunities.

Each collaborator brought his or her specific expertise and was keen to share ideas in order to develop new teaching and learning strategies and resource material. For example, a web page for electronic marketing resources was produced (see <http://www.edgehill.ac.uk/ims> and go to Subject Resources and Marketing). Two embedded skills' sessions each of two hours and held in C&IT rooms, were jointly delivered in

semester 1, so that both areas (IMS and BML) could learn from each other and students had the benefits of combined expertise and perspectives.

The first skills' session was primarily to establish students' current awareness and past experiences of learning resources and to introduce a range of basic electronic resources using a multi-media demonstration.

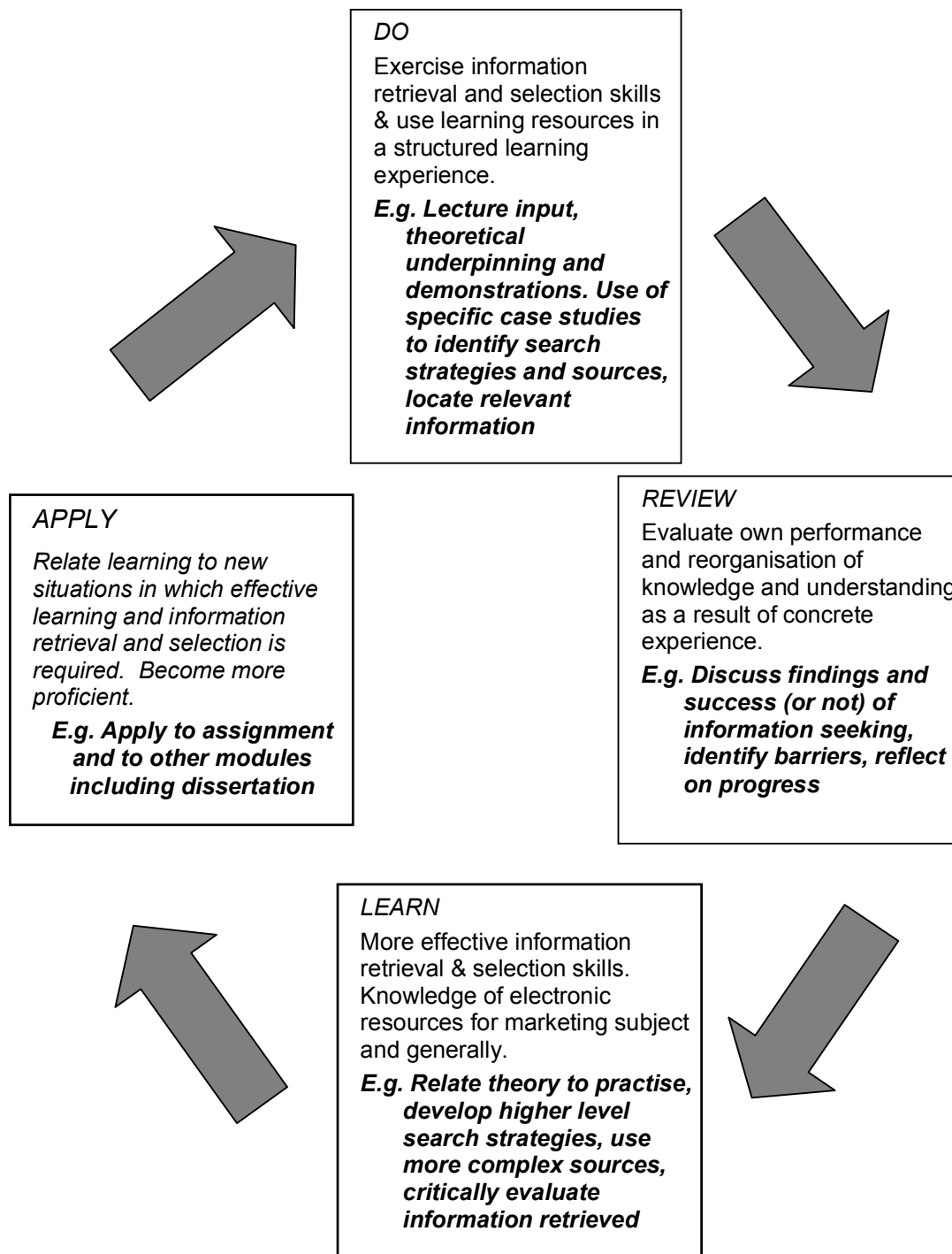


Figure 1: Adaptation of Dennison and Kirk's Experiential Learning Cycle (1990)

The session was linked to a lecture on the theme 'Information Needs for International Marketing' and to preparation for the assignment, which would require students to undertake such search activities for a defined international marketing problem. These activities relate to the 'DO' element of the experiential learning cycle in Figure 1.

The second skills' session included more complex research techniques, learning resources and group work, to define a search strategy for information on a marketing topic. These ideas were shared and the students conducted the searches individually, using the newly-introduced and more complex electronic journal resources (e.g. *Anbar* and *Bids*, which has since been replaced by *Web of Science*). The students shared their chosen articles with the group, which was encouraged to assess and reflect critically on their information-seeking behaviour and the quality and relevance of the material retrieved. Both sessions benefited from one-to-one use of PCs and opportunities to practice the skills with guidance from the two tutors involved.

The reviewing of students' experiences (past, recalled and actual) and the synthesis of the theoretical and subject knowledge relate to the 'REVIEW' element of the learning cycle. Opportunities to 'APPLY' cognitive skills were provided within the sessions, the module assessment and other modules. Confirmation of learning combines assessment of the synthesis of information retrieval/selection skills with appropriate information based on knowledge and understanding of the subject area and electronic data sources.

## Evaluation and Survey Findings

### *Evaluating the Effectiveness of the Sessions*

In order to analyse and evaluate the effectiveness of the learning and teaching strategies for embedding information literacy, a survey questionnaire was designed. It was distributed at the end of the academic year, May 2000, to allow for skills to develop, the use of electronic sources to increase and the information to be used in assignments. A questionnaire was used because, by this point in the academic year, students were on work-placements and, consequently, focus groups

would have proved difficult to organise. Students were asked whether their use of electronic resources had increased following the skills' sessions and to rate the importance and relevance of various aspects of the sessions in developing skills using a 0-4 scale. A 'General Comments' area sought to capture any further views and qualitative feedback. Thus the questionnaire was mixed mode, offering primarily closed questions but with some open questioning. The response rate was 29%, which is quite low but this was supplemented by discussions with students within the actual sessions.

### *Survey Findings*

The survey results present quantitative and qualitative data to support the view that the sessions have been successful in facilitating the development of information literacy skills and increasing the usage of electronic resources. Introduction to the relevant range of electronic resources for Marketing was considered relevant by 95% of the respondents. The problem-based primary/artificial activities (constructing search strategies in groups and searching and retrieving using C&IT) were also considered relevant to 65% of the respondents. Resource usage increased overall with the net changes ranging from an increase of 10% to 45% (see Table 2 for a detailed breakdown of resource usage). The greatest increase in use was shown with the Marketing Web Pages, which had been specifically promoted as a gateway to many of the electronic resources. This suggests that students find the development of subject web portals particularly beneficial in aiding their navigation of electronic information.

The survey also revealed how students felt their skills had been developed by the marketing sessions. The modal response to all the skills was "To a large extent" suggesting that students felt that they had benefited from the sessions. The sessions provided opportunities for the development of learner autonomy by facilitating skill learning and enabling students to practise these skills outside the sessions. Table 3 illustrates student responses to this skills' development. Clearly, students felt that information literacy skills, in their component parts, were being developed although some students did

Resource	Yes/No (used/ not used)	Frequency before %	Frequency after %	Net Change %
European Business Database	Yes No	55% 45%	65% 35%	+10%
Anbar Intelligence-Abstracts Database	Yes No	20% 80%	55% 45%	+35%
World Magazine Bank Database	Yes No	30% 70%	50% 50%	+20%
Electronic Journals	Yes No	60% 40%	60% 40%	0
WWW resources	Yes No	85% 15%	60% 40%	-25% +25%
Marketing web page	Yes No	25% 75%	70% 30%	+45%

**Table 2: Increase in Resource Usage**

Question	Very large extent		Large extent		Small extent		Not at all	
10. Understanding the use of ICT in developing learning.	2	10%	12	60%	6	30%	0	
11. Developing autonomy in learning.	1	5%	13	65%	6	30%	0	
12. Constructing search strategies.	1	5%	13	65%	6	30%	0	
13. Accessing the information from the internet.	4	20%	12	60%	4	20%	0	
14. Accessing information from electronic journal databases.	6	30%	11	55%	3	15%	0	
15. Selecting appropriate information from search.	3	15%	11	55%	6	30%	0	
16. Retrieving information from source.	2	10%	14	70%	4	20%	0	

**Table 3: Student Responses to how the Module developed their own Skills.**

express difficulty in recognising and articulating the skills they were attaining and practising. This points to the need for clear articulation and understanding of skills' development, integrated into learning outcomes.

Qualitative responses reinforced this positive view, for example:

"I found the sessions to be of great use in helping to complete my assignment as all of the sessions were relevant to the assessment."

"I was glad of the opportunity to learn more about the use of computers and particularly information retrieval from the marketing web sites."

"I found the session informative and helpful in the retrieval of relevant data for the module."

Some of the comments and responses gave suggestions on how the session could be improved, especially on how to ensure that the students see the relevance of the sessions within a subject and as part of wider lifelong skills development. Some technical issues do impair students' ability to use the electronic sources of information and exercise their skills, for example, unfamiliarity with the software, which can be identified earlier by conducting a diagnostic audit and supplemental training.

The research suggests that the students' more effective skills have allowed them to explore further learning experiences and issues that arise from them and so develop more reflective learning (Jarvis *et al* 1998). The increase in resource usage since the sessions, provides some indication of the impact on the students; however, this may be due to many other factors. In order to investigate more accurately whether the marketing sessions had a significant impact on the increase in resource usage, a survey of a control group of students might have provided some useful comparisons. Focus groups would also be useful to obtain more qualitative information about student skills' development, awareness and application. The collaboration between IMS and BML was documented through reflective diaries and this

qualitative data has been used to improve the research strategy and delivery of the information skills' sessions. This reflection illustrated some blurring of roles and also highlighted the need for less time intensive curriculum models. Further research is currently in progress on how collaborative activities and relationships between departments and support services can provide benefits to the organisation and student experience.

## Key Issues

This model of collaboration and embedding of key skills to reshape part of the marketing curriculum, highlights the importance and benefits of sharing expertise to develop learning and teaching strategies. However, significant areas of the sessions' design will need to be considered in order to improve the experiences of the students. In terms of learning and teaching strategies for information literacy and models of collaboration, the following issues were highlighted.

- The need to make the students more self-reflective and critically self-aware of the skills they are developing since the findings show that they were not always aware of these.
- The need to map skills' descriptors clearly within programme specification and follow this through to articulation of assessment criteria.
- The need to develop a Marketing subject gateway to encourage use of electronic resources and to provide a "one-stop-shop" for students.
- The need to develop the skills of Learning Support staff, along with their perception of roles in terms of curriculum development and teaching and learning.
- Academic staff skills and awareness of electronic learning resources and information literacy need to be developed and recognised as important by subject managers. This is the case within BML, where sessions for academic staff have been organised by the head of department and delivered by IMS.

- This model is staff intensive, raising the question of how to extend it to all subject areas. Future models may involve varying levels of central learning support input and also online support and learning materials. This is currently being developed through the use of a Virtual Learning Environment (VLE).

### Future curriculum

As highlighted above, the future curriculum requires further development in terms of information literacy and other key skills. VLEs could have a role to play as a delivery mechanism for flexible learning materials, support and the integration of electronic information resources. A pilot project is currently exploring the use of WebCT to embed and develop information literacy within the Level 3 marketing programme. Materials developed and lessons learned are being transferred to other subject areas and shared with institutional partners and others. This development work is at a very early stage but it is planned to address the concerns around the previous staff-intensive model and will also explore how to encourage students to be more self-reflective and aware of their own skills' development. The next twelve months will see the revalidation of Part One of the modular programme at Edge Hill, with all subject areas having to embed and assess key skills within their programmes and complete Personal Development Plans. This will ensure that, when students reach Level 3, they already have standard levels of skills, including information literacy.

The recently validated BSc (Hons) Marketing Information Systems Degree provides multiple opportunities at each level (1 to 3) and within each module of the programme to encourage the development of the range of key transferable skills. In line with Edge Hill's Quality Guidelines (1998), skills' levels

descriptors have been developed to assist us in giving support to our students. Table 4 illustrates the level of skills' development, which should be achieved by a student at Level 3 (third year). These skills are embedded within specific modules. The skills of information selection and retrieval using

Level Three Embedded Skills Descriptors	
Skills	Level Descriptors
Effective Learning	Ability to critically analyse and synthesise data and information from a range of perspectives with significant autonomy within broad guidelines.
Information Retrieval	Ability to collect appropriate complex and abstract information from a wide range of sources with minimum guidance.
Critical Thinking	Critically review the reliability and validity of contradictory/new/abstract information using a wide range of techniques appropriate to the subject
Communication and Presentation	Can engage effectively in debates in a professional manner and produce detailed and coherent verbal and written communications.
Interactive and Group	Ability to interact and negotiate effectively within a learning or professional context, demonstrating the ability to manage conflicting information & IT where appropriate. Ability to recognise, support and/or be proactive in leadership.

**Table 4: Skills' Mapping for BSc (Hons) Marketing Information Systems Degree**

C&IT are principally embedded within the International Strategic Marketing Module in Level 3, for example.

### Recommendations and Conclusion

Further research is necessary to establish whether the students in the marketing module have synthesised the knowledge and have applied their learning to improve the level of research conducted for assignments and whether this has translated into higher levels

of critical analysis and higher assessment outcomes. In addition, research is needed to establish whether these information literacy skills have been translated into other modules of study. A longitudinal study would seek to identify whether students found these skills were useful in their later life and career. The International Strategic Marketing module has been further developed and information skills' sessions were delivered in October and December 2000, with the emphasis on search strategies highlighted at an earlier stage. In addition, a skills' audit and diagnostic test has been used at the beginning of the module to evaluate current practice and awareness of electronic resources. At the completion of the module, a further audit will evaluate any changes in use of resources and skills' development. This will be compared with a control group within BML. Focus group discussions will provide in-depth, qualitative data regarding the effectiveness of the sessions in developing information literacy skills.

Cross-departmental collaboration is an effective model for embedding information literacy skills and generic C&IT skills within the curriculum. At Edge Hill, it has led to the development of academic staff awareness and expertise in electronic resources and developed learning support staff in terms of teaching and learning skills. Learning support staff now pro-actively seek partnerships and are involved in key skills' support and the development of virtual learning environments. Such collaboration will continue in different forms but whatever the relationship or project, it must be based on mutual recognition of each area's expertise and objectives. Academics need to rethink their curriculum in partnership with staff with expertise in electronic resources, C&IT and VLEs in order to develop information-literate graduates. Examples of such collaborative ventures can be found across HEIs but this is still patchy, under-researched and certainly not universal practice (Webber 2001). It is important that links are developed between central learning support and teaching departments to develop a more coherent teaching and learning environment. These will encourage students to make best use of the learning opportunities available to enhance achievement and

develop transferable skills or 'intellectual personal skills' (Wright 1992).

The re-mapping of the marketing curriculum has reinforced concerns about key skills and information literacy in particular. Experiences of embedding information literacy and the findings of the survey, point to a need to recognise this skill as one of the core skills of marketing graduates. Indeed, information literacy is a key skill for any graduate as it is "...about people's ability to operate effectively in an information society" (Bruce, 1999). As such, information literacy deserves a place within a curriculum which is concerned with developing critical thinkers, autonomous learners and employable graduates.

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