



A phenomenographic study of English faculty's conceptions of information literacy

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Abstract

Purpose – The purpose of this research is to identify UK English academics' conceptions of information literacy and compare those conceptions with current information literacy standards and frameworks.

Design/methodology/approach – Three year AHRB-funded study involving 80 academics interviewed throughout the UK and using the phenomenographic research method to discover variation in experience leading towards identification of qualitatively different conceptions of information literacy. Conceptions are then reviewed in light of previous research and current librarian-generated frameworks and standards.

Findings – The findings identify UK English academics' conceptions of information literacy and show them to be both similar to and significantly different from conceptions described in previous research and librarian-generated frameworks and standards.

Research limitations/implications – The research focuses on creating a conceptual snapshot-in-time for the 20 English academics taking part. The research implies that disciplinary differences in conception of information literacy are significant and suggests further research to assess disciplinary conceptual differences.

Practical implications – Librarians working with English faculty on information literacy need to be aware of differences in conception between themselves and academics to work effectively. The paper also highlights the significance of information literacy in English faculty's teaching and research practices and this relevance suggests that information literacy should be integrated into course and curriculum design.

Originality/value – The paper fills a major gap in literature on information literacy by focussing on conceptions of lecturers, thereby counterbalancing the abundance of work produced by librarians. The paper illustrates the complexity of English academics' conceptions of information literacy and informs academics' use and understanding of information literacy.

Keywords Information literacy, Higher education, Academic staff, Librarians

Paper type Research paper



Introduction

Information literacy is a topic of increasing significance for the Higher Education (HE) sector. The complexity and volume of information available requires that students, academics, administrators, and librarians alike focus on acquiring the skills needed to access, evaluate, manage, and use information effectively. Information literacy has become the focus for meeting this requirement. Our own definition of information

literacy is “the adoption of appropriate information behaviour to obtain, through whatever channel or medium, information well fitted to information needs, together with critical awareness of the importance of wise and ethical use of information in society” (Johnston and Webber, 2003, p. 336). Whilst clearly no longer a subject only of interest to librarians and Library and Information Science (LIS) faculty, information literacy still receives surprisingly little critical attention outside the LIS field. To date it is librarians’ conceptions and experiences that have dominated the literature and their frameworks and models for information literacy that have been most visible (e.g. SCONUL Task Force on Information Skills, 1999; ACRL, 2000; Bundy, 2003).

But what are the conceptions of university academics? What are the conceptions of these key, front-line educators? Dealing with the day-to-day, “real-world” pressures of teaching and learning, they are potentially vital agents for information literacy. These questions motivated our research into the experiences of Higher Education faculty in educating students for information literacy. We report on selected findings from our phenomenographic study investigating United Kingdom (UK) academics’ conceptions of, and pedagogy for, information literacy. This three year project began in November 2002 and is funded by the Arts and Humanities Research Council (AHRC). The complete project involves academics in four disciplines, each within one of four HE disciplinary contexts: English (Soft Pure), Marketing (Soft Applied), Chemistry (Hard Pure), and Civil Engineering (Hard Applied).

This paper focuses on results relating to English faculty and addresses the research question: what are the conceptions of information literacy held by English academics in the UK? The nature of information literacy as well as the rationale and context for the research in terms of the focus on academics’ conceptions of information literacy is discussed in the following section. The information-seeking behaviour of English faculty in relation to information literacy is also discussed in brief to illuminate the wider information world of the English academics. The paper then describes our methodology and the phenomenographic categories discovered during our analysis of the transcripts. Finally, we discuss our findings in relation to previous research and frameworks.

Rationale and background for research into information literacy

In this section we highlight the increasing interest in information literacy, review current frameworks for information literacy developed by librarians, and identify relevant work related to academics and information literacy.

Information literacy has been a driving force within the LIS field, particularly in the last two decades (Spitzer *et al.*, 1998). Bawden (2001) has reviewed the occurrence of the phrase “information literacy” and cognate terms. Within the wider academic and non-academic communities, information literacy has been receiving increasing recognition. For example, the Prague Declaration, the collaborative result of a 2003 UNESCO-sponsored meeting, asserts that information literacy “is a concern to all sectors of society” and “is a prerequisite for participating effectively in the information society, and is part of the basic human right of lifelong learning” (Information Literacy Meeting of Experts, 2003). This affirms the findings of significant previous research such as the influential report on Australian higher education by Candy *et al.* (1994), which identified information literacy as one of five key elements in the profile of a lifelong learner. UNESCO is currently developing a conceptual framework for

information literacy and has acknowledged that “information literacy should be introduced wherever possible within national curricula as well as in tertiary, non-formal and lifelong education programmes” (UNISIST Newsletter, 2003, p. 19).

A number of frameworks for information literacy have been developed in the HE sector, including: the Society of College, National and University Libraries’ “seven pillars” of information literacy in the United Kingdom (SCONUL Task Force on Information Skills, 1999); the Association of College and Research Libraries’ “Information Literacy Competency Standards for Higher Education” in the United States (ACRL, 2000); and, the second edition of the Australian and New Zealand information literacy framework (Bundy, 2003), which was initially based on the ACRL standards.

Certain elements are common to all of these frameworks. Each, for example, identifies access, acquisition, evaluation and manipulation of information as necessary steps in the information seeking process. Additionally, each framework discusses the identification of an information need as a necessary element of information literacy and each illuminates ethical issues of information use. The key differences between these frameworks are that the SCONUL Task Force on Information Skills (1999) framework places more emphasis on the recognition of the information need and the steps involved in the information seeking process and the ACRL (2000) standards do not cover the creation of new knowledge. Both the ACRL and Bundy (2003, p. 11) framework highlight an understanding of social and economic contexts. Bundy in particular includes four principles that embrace “social responsibility through a commitment to lifelong learning and community participation”.

These frameworks outline the developing boundaries of what we have identified as the emerging discipline of information literacy (Webber and Johnston, 2000; Johnston and Webber, 2005). These frameworks identify a potential curriculum for teaching information literacy, and one might expect them to draw on relevant research in pedagogy, information behaviour and social informatics to define content and influence course design. This is often not the case, however, as these frameworks for information literacy have been produced by library and information science practitioners, rather than academics and/or researchers and were not devised through the use of an applied research methodology. We will return to these frameworks in our discussion, comparing them to our findings.

Some information behaviour research (e.g. Kuhlthau, 1991) has received serious attention in discussion about information literacy. However, we contend that studies (e.g., Pirolli and Card, 1995; Erdelez, 1997; Heinström, 2003; Heinström, 2005) on information encountering, browsing and foraging, or research into everyday information seeking, have not been explored or widely drawn on. Deriving from the experiences of LIS practitioners, the information literacy frameworks reflect the conceptions of those practitioners, but do little to illuminate the conceptions and experiences of other groups involved in information literacy education. Our project provides balance by exploring this research gap.

The key role of academics in producing information literate students is acknowledged, for example, by UK librarians (SCONUL Task Force on Information Skills, 1999) and by the USA ACRL IS Research and Scholarship Committee (2003, p. 485). The importance of embedding information literacy into the curriculum of another discipline has been recognized (e.g. Behrens, 1994; Lupton, 2004), and with it,

the need for increasing collaboration between librarians and academic staff. However, collaboration remains a difficult subject as librarians and academics find it difficult to work with one another (Farber, 1999). In her study of Irish academics, McGuinness (2003) found that academics do not necessarily value the contributions of librarians' to teaching and learning. Similarly, in a Canadian study, Julien and Given (2003) identified that the attitudes adopted by librarians toward academics can be another barrier to effective collaboration.

Academics' conceptions of information literacy have been given little attention in the research literature. McGuinness (2003) notes that much of the literature of information literacy education is written on the assumption that librarians play the key educational role and, as such, is written by librarians for librarians. Outside of the UK, there have been a small number of research studies which have focused on academics' perceptions of information literacy, including: Bruce's (1997) phenomenographic study of educators in Australian universities; a Canadian survey of information amongst science and engineering faculty (Leckie and Fullerton, 1999); and McGuinness' (2003) phenomenographic study into Irish academics' conceptions of information literacy. We describe Bruce's (1997) study in more detail in the section on the phenomenographic approach in information science research, and will compare her findings with our own.

There is a large body of research literature examining information seeking behaviour (e.g., Case, 2002; Kuhlthau, 2004; Spink and Jansen, 2004) and, within that, a significant amount examines the information seeking behaviour of academics. An understanding of English academics' information seeking behaviour is useful in that it provides us with a richer depiction of the wider information world of faculty. In our study, academics frequently talked about their information seeking behaviour, or the information seeking behaviours of students, in the context of information literacy and therefore it is useful to look at the relationship between information literacy and information seeking behaviour to illuminate this interrelationship more fully.

Information literacy and information-seeking behaviour in the humanities

Information-seeking behaviour and information literacy are linked. One step towards becoming information literate is to acquire an appropriate information-seeking behaviour. Within the information literacy frameworks, there is a corpus of common, connected aspects and activities, many of which are also relevant in the area of information-seeking behaviour, defined by Wilson (2000, p. 49) as: "the purposive seeking for information as a consequence of a need to satisfy some goal". Information literacy, however, is a broader concept, encompassing personal, social and ethical dimensions of interacting with information.

A number of multidisciplinary research projects have investigated the information needs and information-seeking behaviour of English academics (Weintraub, 1980; Bates, 1989; Wiberley and Jones, 1994; Covi, 1999; Herman, 2001; Stubbley and Kidd, 2002; Talja and Maula, 2003). Like faculty in any other academic discipline, English staff are faced with a number of factors that affect their information-seeking behaviour: "teaching versus research orientation, local versus international research orientation and basic research versus applied or action research orientations ... influence information seeking strategies" (Talja and Maula, 2003, p. 677). Beyond that, the very nature and traditions of the disciplines themselves have a deep-rooted impact on information acquisition within those disciplines (Ochalla, 1999).

In her study of literary theorists, a specialist subset within the English faculty, Covi (1999, p. 311) indicated that the “discipline as a whole had deep ties to traditional forms of publication in its history”. Despite the inevitable push towards digital media and electronic forms of distribution, the most traditional form of publication, i.e. the printed book, remains the key object of study within the English discipline. Like other Humanities scholars, English faculty engage in the process of “establishing and studying documents and artefacts” created by others (Herman, 2001, p. 394). Indeed, Weintraub (1980, p. 25) suggests that:

Humanists are probably the most book-bound creatures in the world of scholarship . . . Their appetite for books is insatiable . . . Humanists care about texts in their varieties. They usually need all editions of a text . . . The old book (not the rare book) is thus at least as important as the current book.

In other words, “humanists need first and foremost primary sources of information” (Wiberley and Jones, 1994). English academics like others in the Humanities are “mainly dependent on fairly well-established data (such as historical archives) or texts (literary or other)” (Herman, 2001, p. 395) and the sources “most important for their research are usually books” (Talja and Maula, 2003, p. 680). When compared with their colleagues in the Social Sciences and Pure and Applied Sciences, the focus of research in the Humanities is concentrated on books and print journals (Stubley and Kidd, 2002). But it is not only their focus on books that separates them from their Science colleagues: English academics’ also use “older literature as much as current literature” (Talja and Maula, 2003, p. 680).

English academics seek out primary sources. Stubley and Kidd (2002) discovered that if academics do not own or have access to a physical copy, they prefer to obtain one through inter-library loan or to travel to access a copy in another library or archive. The actual act of acquiring, owning and collecting relevant books was a significant factor in their information-seeking behaviour. As Covi (1999, pp. 310, 305) discovered, “literary theorists liked to purchase books”: “most of the literary theorists collected as many of the books they used as they could afford and wrote their articles and books as a contribution to an ongoing dialogue (criticism, arguments) about the particular genre or period of literature and its theoretic relevance”.

Close reading and being intimately aware of, and personally invested in, a specific argument within the critical literature is often seen as being preferable to having a wider knowledge of the field (Wilson, 2000). Beyond ownership of the desired text, English academics’ typical search strategy is browsing or “berry picking” (Bates, 1989). Talja and Maula (2003, p. 680) contend that:

Literature and cultural studies scholars . . . rely on browsing [Internet homepages and subject directories, books, print journals, publishers’ and library catalogues] and chaining [following bibliographic references from documents already known to them or to their colleagues].

Interestingly, academics “often follow a limited amount of print journals and listservs to keep up to date with the discussions going on in their fields” (Talja and Maula, 2003, p. 681). In order to find relevant research material, English academics prefer to seek by “linking” (Talja and Maula, 2003, p. 685) from a known source to a potential source of interest. In terms developed by Heinström (2005, p. 239), English academics can be seen as exhibiting the qualities of all the information-seeking behaviour patterns she identifies – i.e. “fast surfing, broad scanning and deep diving” – applying each

approach where needed. Or, as Covi (1999, p. 313) suggests, English faculty work on three discrete levels at once:

Browsing journals and books to read in order to keep up with current discourse rather than to seek out new source texts; selecting books and articles to become part of the owned working collection; [and] valuing thorough, crafted arguments over timeliness, honouring difference in textual form.

Despite the introduction of new digital media and information communication technologies in the more recent studies of English academics' information seeking behaviour, the focus of English academics seems not to have changed and remains focused on use of traditional texts. We will draw on this body of research in discussion of our own findings.

The research approach: phenomenography

Phenomenography was pioneered by Ference Marton, Roger Säljö, Lars-Öve Dahlgren, and Lennart Svensson in the early Seventies. Phenomenography itself is "a research method adapted for mapping the qualitatively different ways in which people experience, conceptualise, perceive, and understand various aspects of, and phenomena in, the world around them" (Marton, 1986, p. 31). Trigwell (2000) has identified the following aspects of the phenomenographic approach which distinguish it from other qualitative research methods:

- phenomenography takes a second-order perspective: the focus is on the perceptions of the subjects of study, not on those of the researcher; and,
- the approach aims to identify variation in experience of a phenomenon.

We would add that the emphasis on variation contrasts with the consensus approach that characterizes the formulation of information literacy definitions, models and standards in the LIS sector. Phenomenography can be differentiated from phenomenology in that the former concentrates on discovering the subject's experience of the phenomenon and the latter concentrates on discovering the essence of the phenomenon itself. Marton (2000, p. 103) explains that:

... the main strength and promise of phenomenography lies in a rigorous, empirical exploration of the qualitatively different ways in which people experience and conceptualize various phenomena in, and aspects of, the world around us.

So, for example, a phenomenographic study of academics' concept of teaching would not result in a description of teaching, but a rich and detailed expression of the varied ways in which academics apprehend, perceive, and experience teaching. A phenomenographic study seeks to discover what the interviewee holds in "focal awareness", that is, what is foremost in their mind, what aspect or factor of experience they perceive as most significant:

... we are not trying to look into the [person's] mind, but we are trying to see what he or she sees, we are not describing minds, but perceptions; we are not describing the [person] but his or her perceptual world (Johansson *et al.*, 1985, p. 247).

Importantly, the experience and the object of experience are one. The phenomenon and the individual's experience of that phenomenon are inseparable. Marton and Booth

(1997, p. 13) describe the phenomenographic approach as one that does not recognise a dividing line between the inner and outer world or between subject and object; rather, the world is “constituted as an internal relation between them. There is only one world, but it is a world that we experience, a world in which we live, a world that is ours”. All experience and all phenomena are, thus, borne of this internal relationship. Marton (2000, p. 105) elaborates:

There is only one world: a really existing world, which is experienced and understood in different ways by human beings. It is simultaneously objective and subjective ... Phenomenography sees “experience” (“conception”, “understanding”, “perception”, “apprehension”, etc.) as a relation between the subject and object, as “something seen in some way by someone”.

Phenomenography acts as a means of exploring these complex internal relationships between subject and object, between the different ways in which the phenomenon is apprehended or experienced and the different ways in which the experience and apprehension constitute the phenomenon. The phenomenographic methodology provides researchers with a means of constructing rich, multifaceted representations of the variation regarding phenomena. By focusing on variation, phenomenography allows for the exploration of the array of perceptions and conceptions of a particular phenomenon, which in turn allows for a greater and more detailed understanding of that phenomenon.

Phenomenography also recognises that a person may well hold more than one conception of a given phenomenon, where “certain things come to the fore whilst others recede to the ground” (Marton, 1992, p. 259). During analysis, individuals are seen “as the bearers of different ways of experiencing a phenomenon, and as bearers of fragments of different ways of experiencing that phenomenon” (Marton and Booth, 1997, p. 114). The focus is not on the individual, however, but on the group and analysis seeks to identify the different ways in which a phenomenon is experienced by the group.

The sample used in a phenomenographic study is purposive (i.e. a non-random sample in which respondents are specifically sought out). The preferred method of data collection is via semi-structured interviews with questions that encourage the interviewee to focus on and describe their experience of the given phenomenon. Questions used are “as open-ended as possible in order to let the subject chose the dimensions of the question they want to answer. The dimensions they choose are an important source of data because they reveal an aspect of the individual’s relevance structure” (Marton, 1986, p. 42). The individual questions focus on and illuminate the central experience while attempting to frame the variation within the experience. During the interview, every effort must be taken to ensure that the interviewer does not let his or her own experiences and conceptions of the phenomenon influence or direct the interview. Despite the obvious difficulty in setting aside their view of the world, the interviewer must “bracket” his or her own understanding of the phenomenon in order to successfully record that of the interviewee (Ashworth and Lucas, 2000).

The interviews are transcribed verbatim and the transcripts are then pooled, as the focus of research is the variety of conceptions gathered from all interviewees, rather than the conception or conceptions expressed by any individual. During the interviews, every variation in conception expressed by interviewees is taken as valid and recorded. The researchers then seek to identify which conceptions are held to be in “focal

awareness”; that is, which conceptions are emphasised, made pre-eminent, or otherwise focused upon by the interviewees during the interview. The identified variations of conceptions of the studied phenomenon are then categorised and described, producing a “logically structured complex of the different ways of experiencing the object. . . what has been called the outcome space of the object” (Marton, 1994, p. 92). The phenomenographic “outcome space” is synonymous with the phenomenon and includes articulation of the ways in which these experiences are internally related: it expresses “the different aspects together constituting that which is experienced . . . not a subjective shadow of the real object, but a part of the whole which is subjective and objective at the same time” (Marton, 2000, p. 105).

One of the goals of phenomenography is to “discover the structural framework within which various categories of understanding exist” (Marton, 1986, p. 34). Quotations form an integral part of the categories of description and are “not just presented as interesting comments introduced almost incidentally, [but rather] they exemplify the defining features of the categories identified” (Entwistle and Marton, 1984, p. 226).

Application of phenomenography to the library and information science field

The phenomenographic research methodology was developed to further research into learning. Marton and Booth (1997, p. 113) define it as “a specialization that is particularly aimed at questions of relevance to learning and understanding in an educational setting”. It has established itself as a popular methodology for qualitative research into teaching and learning, particularly in Scandinavian countries, Australia, and the United Kingdom as evinced by a review of the literature and the attendance at annual EARLI SIG 9 Phenomenography and Variation Theory Conferences. The concepts of surface and deep approaches to learning (Marton and Säljö, 1976; Marton *et al.*, 1984), which have proven highly influential on educational discourse, were results of early phenomenographic research into approaches to student learning.

However, phenomenography is also used in other disciplines. Summarising the research done in the LIS field using the phenomenographic method, Bruce (1999) argues that phenomenography should be used even more widely. Bruce proposes a number of areas of research that would benefit from the phenomenographic approach, for example, in studying the varying ways in which people experience information in society. Recent phenomenographic studies include Edwards and Bruce (2002), which reveals initial findings from her research into students’ conceptions of information searching, while Kirk (2002) looked into the conceptions of information use held by managers in the Australian cultural industries. Halttunen (2003) discussed the outcomes of his research into students’ conceptions of information retrieval know-how and Lupton (2004) investigates undergraduates ways of experiencing information literacy.

Bruce has carried out a number of phenomenographic studies including research into the information literacy needs of staff in cross-cultural development projects (McMahon and Bruce, 2002) and, most significantly, her identification of seven ways of experiencing information literacy in an Australian HE context (Bruce, 1997).

Bruce (1997) is particularly significant to our study as it remains the only published research using phenomenography to study the information literacy of university staff.

The core participants of her study were 16 interviewees from the HE sector and included academic faculty, librarians, staff developers, and learning counselors. Where interviews were not possible, Bruce also drew on shorter pieces of written data from a further 44 participants. Her results identified seven qualitatively different conceptions of information literacy (the “seven faces of information literacy”), each of which holds a different element of information literacy in focal awareness. The individual conceptions are detailed further in Table I and we will return to her findings in our Discussion section.

Methodology

This section describes our methods for sampling, data collection, and analysis. In selecting our sample, we aimed for as much variation as possible within our target group of academics. The English sample included academics from 20 different universities in England, Scotland, and Wales. The key characteristics of the purposive sample are featured in Table II.

Table I.
Bruce’s “7 Faces of
Information Literacy”
(1997)

Conception of information literacy	Description
1. Information Technology Conception	Using IT for information retrieval and communication
2. Information Sources Conception	Concentrating on finding information
3. Information Process Conception	Information literacy seen as executing a process
4. Information Control Conception	With a focus on organising and storing information
5. Knowledge Construction Conception	Building up a personal knowledge base
6. Knowledge Extension Conception	Working with information so that novel insights are gained
7. Wisdom Conception	Using information wisely and ethically for the benefit of others

Table II.
Purposive English
sample characteristics

Gender	11 female and 9 male, with 15 of UK nationality
Age	Ranging widely between 21-30 to 61 + years
Teaching years	Ranging from 0-5 to 31 + years
Teaching responsibility	All taught undergraduates, 18 taught Masters students, and 7 taught PhD students
Institution	13 pre-1992 institutions and 7 post-1992 institutions (i.e. in existence as universities before the 1992 watershed when Polytechnics were allowed to apply for university status)
Research quality (RAE)	Research Assessment Exercise ratings ranged from 3a to 5* (In the UK, all university departments are rated periodically by a panel of peers, and assigned a rating for their research, with 5* being the highest rating.)
Teaching quality (TQA)	Teaching Quality Assessment grades ranging from Satisfactory to Excellent (In the UK, departments are also subject to periodic external assessment of teaching quality.)

Potential interviewees were contacted by e-mailing academics directly or by asking librarians within the target institutions to suggest academics with whom they had a close working relationship, and academics with whom they had no, or a less close, relationship.

The interview questions and the semi-structured interview process was piloted with three lecturers. The key research questions developed were as follows:

RQ1. What is your conception of information literacy?

RQ2. How do you engage your students in information literacy?

RQ3. What is your conception of an information literate university?

In addition to these three central research questions, supplementary questions were asked to acquire as much variation in conception as possible. Supplementary questions included asking how the academic engaged with information literacy, for example in his or her research or in an administrative capacity, and what goals, outcomes, and challenges he or she perceived being involved in the creation of an information literate university.

During the interviews, all attempts to get the interviewer to define information literacy were emphatically, but empathetically resisted. Every effort was taken to insure that the interviewers' own experiences of information literacy were bracketed so as not to influence the responses of the interviewees. The questions provided a progression within the interview, moving from discussion of current teaching practice and personal experience to organizational and future potential contexts, particularly with respect to their thoughts on the information literate university. Each of the questions helped to develop a rich picture of how the interviewees experience and work with information literacy.

The 20 interviews were conducted and transcribed by Boon between March 2003 and January 2004. Interviews lasted an average of 45 minutes to an hour. The initial analysis began immediately upon transcription of the first interviews. A collaborative approach to the analysis was adopted from the outset with each member of the team (i.e. Boon, Johnston and Webber) reading the transcripts prior to project meetings and then sharing their thoughts and reflections as the analysis proceeded. Project meetings were held roughly every six weeks and presented a on-going forum for team members to explore emerging themes in the transcripts. Discussions and decisions were recorded through concise minutes, marked-up transcripts, concept maps and, in some cases, other media (e.g. flip charts, diagrams, etc.).

Once all the interviews were completed and transcribed, the key phase of analysis began. The transcripts of each discipline were analysed, focusing initially upon Marketing, then moving to English, Chemistry, and finally Civil Engineering. In addition to the work already done in highlighting key quotations and flagging up key themes and potential categories of description, the transcripts were loaded into Atlas/TI qualitative analysis software for further textual analysis. Through an iterative process, codes were developed and the transcripts were marked-up within Atlas/TI. The coded data was outputted in the form of sets of quotations coded to different themes and categories, lists of numeric occurrences of individual codes, and matrixes and charts derived from numeric data about the codes. Additional analysis of subsets of the data was stimulated by the presentations on the project to external groups of librarians and academic researchers throughout the term of the project.

Through the cyclical process of repeatedly moving between analysis and readings of the data, the categories described in the following section were identified. Rigorous debate, close examination of specific results, and testing of identified categories were used to insure the reliability and validity of the findings.

Findings: UK English academics' conceptions of information literacy

The products of a phenomenographic analysis are an outcome space and categories of description which detail each conception and include quotations which illuminate the conceptions.

Throughout the course of the interviews, the participants were asked to consider and reflect on their conception of information literacy. Each interviewee was asked to discuss information literacy both in terms of their own practice (e.g. how they use information literacy in their own research and, more broadly, in a general academic context) and in terms of their teaching of, and interaction with, students (e.g. how information literacy was taught or otherwise related to students in class, outside of class, or not at all). In all cases, the individual participants held the same conception of information literacy for both their personal, academic context and in their role as an educator. Within the conceptions themselves, a number of factors or aspects of variation, presenting themselves as phenomenographic "dimensions of variation" and listed below, could be identified that affected the conceptions of information literacy held by the interviewees.

Key dimensions of variation are:

- the particular context within which information literacy was perceived; for example, whether the conception was confined to a particular English course, whether the conception broadened to encompass a number of courses or an entire discipline, or alternatively whether it was seen as extending beyond the educational context all together;
- the time period in which information literacy was perceived to be needed, useful or otherwise significant; for example, whether the conception was confined to a particular period of study or alternatively whether it was seen as being significant for their entire life; and
- the particular media with which information literacy is associated; for example, whether the conception was confined to a particular medium (e.g. print resources) or alternatively whether it was perceived as extending to cover all media.

In Table III, we see the conceptions of information literacy paired with the focus of variation. Each of these conceptions of information literacy is described in greater detail following the table with illustrative quotations from the English transcripts, referenced as English 01 to English 20.

Conception 1. Accessing and retrieving textual information

The focus is on being able to quickly and easily access and retrieve textual information which refers almost exclusively to printed matter, whether it is a book, magazine, journal, etc. The key purpose is to access and acquire textual information, most often secondary critical information, relating to one or more primary text. In some situations, the access and retrieval pertains to the primary text itself (e.g. finding a copy of a text in a library, etc.). The use and manipulation of the acquired information is often described in disciplinary terms (e.g. close reading) and differentiated from information literacy:

Information literacy conceived as . . .	Contextual focus	Temporal focus	Media focus
Accessing and retrieving textual information	Particular research need (e.g. an assignment for a student, or a journal article for an academic)	Needed to answer an immediate need (e.g. for an assignment or presentation)	Traditional (primarily print; books, magazines, articles, etc.)
Using IT to access and retrieve information	Particular research need (e.g. an assignment for a student, or a journal article for an academic)	Needed to answer an immediate need (e.g. for an assignment or presentation)	Non-traditional (primarily electronic; online materials, multimedia, television and radio)
Possessing basic research skills and knowing how and when to use them	University and/or "real world" context	Needed throughout course of study, and potentially throughout the students' careers. For staff, these are essential career skills required for both teaching and research; as such they are taken for granted	Traditional with limited non-traditional (often confined to the library, or seen as "library skills", e.g. print materials accessed through OPAC or online journals)
Becoming confident autonomous learners and critical thinkers	Wider information society context	Needed for life and participation within the wider information society	Traditional and non-traditional

Table III.
Outcome space

[Information literacy is being] literate with the use of information, retrieval of information. . . I guess this is me thinking about information literacy in terms of retrieval skills rather than necessarily the kind of consequent use of information, to be literate with information. . . (English 05).

The contextual focus is clearly represented in interviewees' statements as a particular research need. For students, the contextual focus is on the current course of study. This is closely related to the temporal focus which shows that the information being gathered is for immediate use and, in the case of students, usually tied to an assignment or essay given in a particular class or course:

[Students' need] to be able to quickly and effectively retrieve the information that they needed for their assignments. (English 15)

I'd go find the paper copies of all the texts that I thought might be useful and I'd have a look at the contents. Come back to the office with an armful of books and start wading through specific parts (English 01).

The media focus within this conception is on traditional sources. Information is most commonly described in terms of the written word or the "text". Throughout the discipline, textual information remains key and, within this access conceptions, it is strongly emphasised:

[Information literacy is] . . . accessing information, texts, corpora, etc. (English 01).

I am like an old train going along the same rails as far as the word and my concept of information, but yes, that's what it means to me, things that I access through print . . . (English 11).

Conception 2. Using ICT to access and retrieve information

The focus here is on being able to use information communication technology (ICT) to quickly and easily access and retrieve information. Like the former conception, the key purpose is to access and acquire information but here information is acquired via the use of ICT tools. Unlike the former conception where the information intended for acquisition was primarily textual, here the information accessed is both textual (e.g. a journal article) and non-textual (e.g. a video clip, television or radio programme), and encountered in a non-traditional media, such as online materials, material hosted on virtual learning environments (e.g. Blackboard), departmental websites and intranets and the World Wide Web, and multimedia:

[Information literacy] would be the ability to confidently kind of engage with and organise and analyse and manipulate online information and texts, I suppose (English 13).

I find it very hard these days to talk about information literacy without talking about computers and seeing computers as the first step. I mean I don't mean either that computers are the only sort of step at all, um, you know, I, in my research I used books and online journals and things like that, but most of the time, you obviously get to these online journals and find the hard-copy journals by internet and things (English 14).

Emphasis is often given to the growing importance of IT and electronic resources. This importance was normally mentioned as existing for both students and academic staff:

Not only information literacy skills for students, but just to move the whole departmental way of thinking forward into the electronic age . . . (English 01).

As with the “Accessing and retrieving textual information” conception, the contextual and temporal foci applied to using IT find information highlight the need to fulfil the information requirements of a current project, assignment or course:

[Students need] to be able to access the information that they need for the course and getting familiar with how to find it, whether through the web or through the portal that we have here ... (English 05).

Myself... well, I'd go to Google first on the internet and I would just type in what I wanted and I would have a wee look around to see if there were websites, discussion groups ... (English 04).

The media focus, as one would expect, emphasises electronic resources including the means of incorporating them into course design:

I am quite keen to think of ways of bringing it in, to use the material that is available, manuscripts online for example, or perhaps searching databases (English 08).

Conception 3. Possessing basic research skills and knowing how and when to use them

The focus of this conception of information literacy is on possessing a set of basic research skills and being able to use and apply those skills when required (e.g. in writing an essay, constructing a presentation, producing material for a dissertation, etc.). For the academics themselves, these skills are essential to their roles as educators and researchers and, therefore, they are generally taken for granted. Discussion of these skills is thus more often heard in reference to students who are viewed as being deficient in these skills. The emphasis then is on developing research skills in the students which mirror the academics' internalised skills:

... being able to handle bibliographies, being able to use a library effectively and efficiently, um, and pursue references, both being able to present a reference correctly and also being able to follow a reference through ... a pool of resources they could go back to ... (English 08).

I guess, there again is the sense that we are building on skills which we presume they already have at a lower level ... so there is a progression and again in terms of quality assurance, we now need to articulate the progression of skills. One way of phrasing it might be again, you know, information retrieval and so forth, information literacy (English 15).

These basic research skills are described holistically as “bibliographic skills”, “research methods” or “library skills”, and are often expected in students beyond the first year, whether provided by the library (during induction or an information session) or the department (in a research methods class or some other context), or not.

This conception is sometimes described in terms of acquiring skills that would be applicable to careers in the “real world”. Again, as university educators and researchers, those skills are essential and it is taken for granted that academics possess them. Of interest, however, is the emphasis academics place on making their students aware of these marketable, transferable skills. Some stress the point more than others, but all interviewees expressed a desire to provide students with an awareness of the marketable skills they would possess upon completion of their English degree. Thus, the context is not a particular project or the current course of study, but much broader, encompassing the students' academic career and often extending beyond the university:

[Students] often at the beginning of that process think that they don't have any skills, and often sort of are a bit worried compared to say medics or engineers or something like, they have nothing that they can offer, whereas hopefully by the end of the course they are much more aware that they have a sort of series of skills and that being able to find these things in the library is a transferable skill and are more happy with presenting it to an employer and seeing it as something valuable ... (English 14).

This desire may relate to the feelings expressed by some interviewees that English is an "insular" discipline disconnected from the "real" world and other disciplines, and the misconceptions that English skills are too general to be valuable in a professional context:

[I]n English it is very easy to feel that you are in a ghetto labelled English ... (English 04).

Likewise, the temporal focus is on students' long-term information needs, rather than the immediate needs required by an assignment or particular class or course:

I mean, those are the kind of [transferable] skills which, if you want to talk about vocational skills in English, then those are the things that you are reduced to say, and I think they are valuable skills. I was trying obviously to tell the students that it's about, you know, the instruments of thought and it's all kind of, you know, give them a fish and you feed them for a day, teach them to fish and tell them that if you know nothing about the 18th Century I don't really care – it would be nice if you did! But if you can't tell me one thing about the 18th Century, I don't mind, but if you picked up these skills, then that is the point of it (English 10).

Unlike the two previous access-specific conceptions, the "Possessing basic research skills and knowing how and when to use them" conception is not limited to traditional or non-traditional resources, but instead includes a mix of resources. However, this mix is still often bound to the library and the library's collection of traditional and electronic resources. Skills are, thus, frequently described as "library skills" or "bibliographic skills":

I would hope that they would be intimate with those areas of the university library, in fact I would say any university library ... (English 11).

Conception 4. Becoming confident autonomous learners and critical thinkers

The focus here is on personal growth and development and the acquisition of higher order information skills in order to become confident autonomous learners and critical thinkers. The conceptions are equally applied to students and staff. A greater emphasis is placed on critical analysis, questioning processes and evaluating results, and developing understanding, self-awareness and self-sufficiency. Attention is largely on the individual and the individual's role in, and engagement with, the wider information society:

I mean, as a culture, I think we are fantastically interested in information, in a way that perhaps we haven't been, and over the past decade, I would say that our sense of where we are situated in the world of information ... we've all become heightened to that world, I suppose, because we are aware of how much information we have to deal with and how much we have to work with (English 19).

In this conception, there is an awareness of context like that of the previous basic research skills conception (3), but that context is not confined to professional or

career-based activities, but is opened up to allow for a greater, more holistic application. Similarly, the emphasis is not on achieving success in one's career, but rather on successfully becoming an information literate citizen:

Um, it implies to me, I mean to me information literacy is a part of civic engagement and civic participation, um, without even at least even a passing understanding of how information is produced, how it is constructed, how it's presented, um, how it is – if one can say this – intended to be understood and interpreted, then one cannot make sense of the world (English 06).

[Students] need to be able to work out . . . and then derive a sort of critical reading, critical opinion of what they've found from what they've seen. That again is something they can apply outside of their academic career (ENGL09).

Personal development, rather than academic or professional development, is seen as being key. Having the skills and the confidence to efficiently engage with, and manipulate, information and to overcome the challenges inherent in the acquisition, evaluation, and use of that information is an absolute priority:

[I]t is about getting them to be information literate, to become it, a sort of kind of . . . birth [laughs] (English 10).

. . . I think, uh, the difference between a student when they arrive and a student when they leave ought to be their ability to go find information, used intelligently and then relay the findings of that information . . . , so you know, phrases like self-motivated, self-starting, independent, are the kinds of phrases I would expect to be writing or using in references (English 15).

Confidence and self-efficacy are given particular emphasis by holders of this conception. In addition to developing much needed skills and abilities in acquiring, manipulating, and using information, students must develop a level of awareness, confidence and self-efficacy relating to those skills and abilities:

It's understood and hoped that they would achieve [a high level of confidence], before sort of setting them free to go out into the big, bad world, and use their new skills (English 01).

[We try] to give them, not just more information, but more skills and more confidence. They can go out and they can have a good life with (English 07).

Becoming confident autonomous learners and critical thinkers was clearly a goal for both students and staff, and the academics' need for self-reliance, independence of thought, confidence and self-efficacy was often mirrored in his or her understanding of students' needs.

Discussion

In this section we will firstly comment briefly on how our findings relate to the research on information-seeking behaviour cited above. We will go on to compare our results with the frameworks of information literacy devised by librarians. Finally we will provide a more detailed comparison of our results with Bruce's (1997) study of conceptions of information literacy held by Australian university staff.

In relation to information-seeking behaviour research, our findings are consistent with the literature cited earlier. Regardless of their relationship with ICT and electronic information resources, the English academics in our sample still largely view

information as being textual in nature. This is unsurprising considering the prime object of study in English remains the traditional, printed text. To the wide majority of academics interviewed, information was synonymous with text and terms most commonly given to express or describe “information” include “writing”, “written work”, “the written word”, “the text”, “textual information”, “articles”, “published works”, and “books”. Within the discipline, traditional, textual forms are still key and uncovering or divining the meaning therein is the main occupation of students and staff alike. Only a minority of scholars in our study mentioned electronic or digital media (notably television, film and radio) in the context of researching, teaching, or learning English. Thus outside these traditional forms, the focus is on creative media.

Information literacy plays an essential role in this uncovering or divining of meaning. The processes of acquiring, evaluating, manipulating, synthesising, understanding and transmitting information were seen as important to all English faculty interviewed:

[Information literacy is] the ability to independently not only gather information but to discriminate between and to evaluate it, and synthesise it (English 11).

[As educators] we are looking at not just the ability to download the information they require, but actually sell it in a relatively interesting way and a novel way, so ... you know, the acquisition, manipulation, and then transference of the information, transmittal of information (English 15).

Information literacy plays an integral role to academic research in the discipline. Its significance is to be felt in teaching and learning processes as well: this aspect (academics’ pedagogy for information literacy) was a subject of our study, and will be reported on in future papers.

Comparison with current information literacy standards and frameworks

As mentioned previously, a number of current key frameworks for information literacy have been introduced and adopted into the UK Higher Education sector, including: SCONUL’s “7 pillars of information literacy” in the UK (SCONUL Task Force on Information Skills, 1999); the Association of College and Research Libraries’ “Information Literacy Competency Standards for Higher Education” in the United States (ACRL, 2000); and the Australian and New Zealand information literacy framework (Bundy, 2003). Table IV, shows the key elements of similarity between these different frameworks and the information literacy conceptions from our study of UK English academics.

As shown in Table IV, the conceptions held by our interviewees express similar skills and desired outcomes to all three frameworks, regardless of the number or order of conceptions presented. The use of IT, the ability to access and to think critically about information is common to each. Similarities between our findings and current frameworks may in part be explained by academics having been influenced by librarians and librarian-generated standards. However, a few significant differences exist.

The most obvious difference between our findings and these frameworks is the lack of an “recognising an information need” concept. At no time did the interviewees in our study describe a process of identifying their information need, rather they moved immediately to accessing and retrieving information. Similarly, the personal

Conceptions of information literacy	SCONUL (1999)	ACRL (2000)	Bundy (2003)
Accessing and retrieving textual information	Skills in accessing and retrieving information are listed in Pillars 2, 3, and 4	Skills in accessing and retrieving information are listed in Standard 2	Skills in accessing and retrieving information are listed in Standard 2
Using IT to access and retrieve information	IT skills are one of the "twin fundamental building blocks" (7) for SCONUL's 7 Pillar Model	Use of IT is mentioned at various points	Use of IT is mentioned at various points. For example, Standard 4 covers management of "information collected or generated" (18)
Possessing basic research skills and knowing how and when to use them	Described in Pillars 2-6	Described in Standards 2, 3, and 4, particularly	Described in Standards 2-5, particularly
Becoming confident autonomous learners and critical thinkers	Aspects of critical thinking addressed in Pillars 5 and 7	Aspects addressed in Standards 3, 4, and 5, with evaluation in 3 and in the awareness of economic, legal, and social issues in 5	Aspects addressed in Standard 3, 5 and 6, particularly with evaluation of information and recognising "information is underpinned by values and beliefs" (23)

Table IV.
Comparison of
conceptions of
information literacy with
current standards and
frameworks

development and autonomous learning aspects of our “Becoming confident autonomous learners and critical thinkers” conception are not seriously addressed in the SCONUL, ACRL or Bundy frameworks.

Differences such as these are inevitable as the librarian-devised standards do not include different disciplinary agendas. The frameworks delineate what librarians do and believe others should do, generalizing information skills and competencies to other disciplines. These frameworks are, however, essentially subject-specific (to library and information studies) and therefore contain dimensions which do not come into, or are not prominent, in our English academics’ conceptions. The difference between these conceptions is a source of real significance, and shows the value of identifying academics’ conceptions as they reveal factors which librarians have not identified. It seems important for librarians to recognise these differences if they wish to work more empathetically with academics to achieve learning outcomes with students.

Comparison with Bruce’s “7 Faces” phenomenographic results

We will now focus on Bruce’s (1997) phenomenographic study and the resulting “7 faces of information literacy”. The phenomenographic approach provides researchers with a snapshot of the participants’ experience of the phenomenon. Key differences exist between our UK sample and the sample targeted by Bruce in her Australian study, as noted in Table V.

There are notable differences in the two samples (see italics above). For example, while ours is a smaller sample and therefore less generalisable, it is more representative of the studied group, being comprised solely of English academics. Between the two studies, there are both notable similarities and differences in the findings. Perhaps the most immediate and obvious similarity between our studies is the inclusion of an information technology conception: our “Using ICT to access and retrieve information” and Bruce’s (1997, p. 117) “information technology (IT) conception”. Both conceptions focus on using ICT to acquire and retrieve information. A subtle difference between the two conceptions can be seen in Bruce’s emphasis on using IT for communication purposes. Our interviewees more clearly conceived of ICT as a tool or means for information acquisition and did not emphasise as greatly the use of ICT for communicative purposes. It could be the case that our academics, interviewed a decade later, take communication via ICT (e.g. e-mail, listservs, etc.) for granted, seeing it as an accepted norm, and, therefore, not of significant note in terms of a discussion of information literacy.

Variable	Bruce (1997)	Our study
Country	Australia	United Kingdom
Occupations(s)	30 per cent academic staff	100 per cent academic staff
Academic discipline	A variety. No interviewees were from the English faculty	100 per cent English
Sample size	60	20
Data collection method	27 per cent interviews and 73 per cent written responses (via mail or e-mail, or at seminars)	100 per cent interviews
Data collection period	1994-1995	2003-2004

Table V.
Key variable differences between Bruce and current study

An important difference between our findings and Bruce's is that our English academics took a much more neutral approach to using IT. Bruce (1997, pp. 117-18) describes two subcategories of this conception, one in which "Information literacy is seen as using IT effectively" is an "achievable" goal, and one in which the goal is seen as "unachievable". Moreover, in Bruce's study, IT was sufficiently in the awareness her subjects that she identifies it as a dimension of variation in her analysis.

Our "Accessing and retrieving textual information" conception relates most closely to Bruce's (1997, pp. 122, 129) "information sources conception" and "information process conception", which themselves concern finding information "located in information sources" and executing a process to make "information accessible to the user". In our study, emphasis was given to acquiring traditional, print materials, most noticeably books. By contrast, Bruce's wider sample does not express this pointed a focus on one material or another. As noted in Table V, no English academics were amongst her interviewees, and the only Humanities interviewees were from Music.

Our "Possessing basic research skills and knowing how and when to use them" conception does not so readily compare with Bruce's findings and is a significant point of departure. Some elements of Bruce's (1997, pp. 128 and 137, respectively) "information process conception" and "knowledge construction conception" "faces" are evident, but the connection is tenuous. For example, the key aspect of "constructing a personal knowledge base" in Bruce's (1997, p. 139) "knowledge construction conception" was not present in our sample. However the aspect of developing a "critical stance" and adopting an "analytical approach . . . to identifying information relevant to particular interests" (Bruce, 1997, p. 139) is strongly reflected in the conception of information literacy described by our English faculty. Similarly, our category suggests an "information process" in terms of basic research skills and understanding how and when to use them, but the process was not as rigorously defined as in Bruce's findings.

Our "Becoming confident autonomous learners and critical thinkers" conception most closely links to Bruce's (1997, pp. 143 and 147, respectively) "knowledge extension conception" and "wisdom conception". Information in this context is no longer seen exclusively as something external (i.e. the object or result of research) but is seen as having an internal dimension as well. Through the process of critical thinking and reflective learning an individual's relationship with information is altered, taking on a personal aspect: "information is seen as being part of the person and as being changed (transformed) by the person" (Bruce, 1997, p. 143). In the interviews conducted, English faculty who held this conception often expressed an increased understanding of their interaction with the information world and a concomitant sense of personal growth or development. The emphasis on reflection and critical thinking echoes the "wisdom" conception described by Bruce (1997, p. 149), involving "placing the information in a larger context, seeing it in the light of broader experience". The elements of social responsibility and participation in the wider information society described by the English scholars interviewed reflects this change in thinking. Information literacy here is no longer seen as applicable merely to the academy, but to the wider information world. The focus of this conception is on becoming and being a thinking being – an autonomous learner and critical thinker – capable of making effective, wise, and meaningful use of information.

Finally, it is interesting to note that Bruce's (1997, p. 132) "information control conception" was not exhibited by any of the English academics interviewed in our study. In fact, a noteworthy lack of attention was placed on ordering, storing, and otherwise managing information. While the idea of information management was superficially hinted at by some, the idea of storing information for further retrieval was not covered at all, beyond the act of placing books in a collection, and neither idea was ever seen as being in focal awareness. The act or process of building a collection of selected critical texts is as close as our English interviewees came to exhibiting an "information control" conception. This constitutes the most marked difference between our findings and those of Bruce (1997).

Differences in factors of variation and structures of awareness between our study and Bruce's suggest that differences in findings do arise from differences in sample. Our phenomenographic "snapshot" differs from Bruce's, as noted Table V, in terms of time and place. The disciplinary variation in Bruce's sample and the common epistemology in our single discipline sample also may significantly influence conceptions of information and information use.

Conclusion

Despite growing representation in the curricula and agendas of Higher Education institutions across the UK, information literacy as a discrete phenomenon is still perceived as being a relative newcomer to many disciplines, including English. It is thus not surprising that little critical attention has been paid to information literacy by English researchers. We have noted that the literature of Information Literacy is largely based on librarian-centred frameworks (Johnston and Webber, 2003). In HE, librarians will naturally seek to use these frameworks as tools, ideally in partnership with academics, to devise programs to improve information literacy. Our findings suggest that the approaches taken by librarians might be fine-tuned in part by revising their frameworks to incorporate this new knowledge about academic perceptions. For example, if academics do not express a "recognising an information need" conception, then librarians might acknowledge that, rather than simply attempting to impose their own construct. Librarians must also acknowledge, and act upon, the affective, higher-order aspects which are so important to academics, and which also emerged in Bruce's study.

The elements that make up information literacy are highly valued by the English academics we interviewed. The development of these skills is seen as a necessary learning outcome for the discipline. The analytical and self-reflexive thought processes entailed by information literacy were also very much in the minds of English academics in our study. Responses to our research questions suggest both that information literacy plays an integral role in academic research in the discipline and that its significance informs teaching and learning processes as well. These information competencies are present in both research and teaching capacities.

Self-efficacy, confidence and competence in using information and information sources was viewed by the interviewees in our study as being central and essential to the study of English. The academics described conceptions of information literacy ranging from lower order, emphasising access and retrieval skills, to higher order, emphasising autonomous learning, critical thinking and personal development. However, whether they viewed information literacy simply as a tool for acquiring and

selecting texts for a research article or as a means of understanding the role of information in their capacities as researchers and educators and empowering themselves within the wider information society, it is clear that information literacy plays a significant role in the field of English study. Our full study of 80 academics in four disciplines shows that these competencies are similarly appreciated in Marketing, Chemistry and Civil Engineering.

The English academics in our study would seem to agree with Lenox and Walker (1992, p. 232) who suggest that “the dynamic and changing information environment of the last quarter of the century makes the acquisition of information literacy. . . both a practical necessity and a moral right”. This growing awareness of the importance of information literacy provides an excellent opportunity for dynamic and constructive collaboration between faculty and librarians in furthering the role of information literacy in pedagogy and research. The challenge first and foremost is in increasing English academics’ awareness of information literacy as something that they already do as scholarly researchers and educators, and as something they can more explicitly convey to their students. Their conceptions of information literacy and the significance that they give to particular elements (e.g. evaluation and critical thinking) suggests that they need but a little prodding to see information literacy not as something done in a library, but something central to their roles as English researchers and educators.

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