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Essential Elements for an Effective Information Literacy Education

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Abstract The definition of information literacy presented here is the one proposed by the Australian and New Zealand Institute of Information Literacy which promotes the development of independent learning skills, also known as the “learn-how-to-learn” approach, within the wider perspective of lifelong learning. Three main contextual challenges to the successful implementation of information literacy education are explored here. From the perspectives of learners and educators the paper examines the difficulties of engaging with the learning how to learn approach exemplified by the spoon-feeding expectations of the learners and the rescue mode attitude of the educator. The third challenge is the implication for the culture of the institution implementing the embedded model of information literacy education as advocated by three national information literacy frameworks. The frameworks claim that the embedded model requires a shift from a transmission type of provision to one that fosters the facilitation of learning within a knowledge-construction approach. Here, issues such as the need for a flexible learning environment supporting a campus-wide information literacy policy is assessed against the institutional concerns about high retention rates and the logistics of fixed programming and timetabling schedules. The impact of this pedagogical shift on provision is presented through examples from information literacy practice employed within undergraduate and postgraduate courses run by the Information Management School, London Metropolitan University. In particular the cases explored illustrate the main challenge of adhering to professional and institutional requirements while employing information literacy as the learning framework.

Keywords: Information Literacy, transmission, Education

Introduction

The challenges of implementing information literacy education as a way of empowering the learners within an HE institution in the UK are the main focus of this paper. The general information literacy framework presented here is the one proposed by the Association of College and Research Libraries (ACRL, 2000) and the Australian and New Zealand Institute for Information Literacy (ANZIIL, Bundy, 2004), which promotes the development of independent learning skills, or the “learn-how-to-learn” approach, as the basis for lifelong learning. This is in line with the requirements for a highly skilled workforce identified by the Organisation for Economic Cooperation and Development (OECD) in its report on the knowledge-based economy which highlights “the capacity to learn” (OECD, 1996: 7) as a particularly crucial competence. In addition, O’Sullivan (2002) observes that the report places information literacy at the core of the knowledge-based economy promoting: “the need for continuous learning of both codified information and the competencies to use this information.”(ibid.: 8). The process of continuous learning is exemplified by information literacy practice at London Metropolitan University. Evidence to support the claims presented here is drawn from the students’ feedback, the experience of the educators involved in the information literacy practice, and various institutional documentation generated in response to the introduction of the provision.

Empowering the learner the information literacy way

The information environment is in constant state of change, evolving to increasing levels of complexity in terms of availability, volume and variety of media. Bruce (2002) points to this phenomenon as a reason for employing an information literacy approach and equipping the learner with the lifelong-learning competences required to deal with these challenging conditions. The rationale for adopting information literacy is also clearly expressed by the American Library Association (ALA) in an update on its original report:

"To respond effectively to an ever-changing environment [...] people need more than just a knowledge base, they also need techniques for exploring it, connecting it to other knowledge bases, and making practical use of it. In other words, the landscape upon which we used to stand has been transformed, and we are being forced to establish a new foundation called information literacy." (ALA, 1998).

Information literacy, therefore, is seen as the foundation of lifelong learning (Abid, 2004). This in practice means the application of the learn-how-to-learn approach to empower the learner by firmly placing the process of research under his/her responsibility.

"[Information literacy] is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning." (ACRL 2000).

This necessarily leads to a new learning culture where knowledge transmission, from educator to learner, is replaced by what Bundy describes as the process of 'learning the pathways to knowledge' (Bundy, 2001). Information communities are directly affected by this new learning culture primarily because it influences the information provider/user model which underpins their professional identity. If the learner/user becomes information literate, that is, self-sufficient, then the role of the information professional is necessarily redefined as the one of facilitator of learning, rather than provider of information (Doherty et al, 1999). The impact of this pedagogical shift is presented through examples from information literacy practice underpinning undergraduate and postgraduate modules run by the Information Management School, in the Department of Applied Social Sciences (DASS), London Metropolitan University.

Essential elements for an effective information literacy education

There are three main targets identified by ACRL and ANZIIL that need to be achieved to ensure an effective information literacy education within any HE institution:

1. Lifelong learning is set as the ultimate pedagogical aim, and this is reflected in an institutional learning and teaching strategy that promotes a knowledge construction process, rather than a knowledge transmission approach. To achieve this, information literacy education must encapsulate critical-thinking and problem-solving abilities as well as the capacity for reflective practice (Paul, 1992; Shapiro et al, 1996; Mutch, 1997). In addition, Bruce promotes the embedded model of integration as the most effective way of covering the three stages of learning which form the basis for lifelong learning. These stages include: "experiencing information literacy (learning), reflecting on the experience (being aware of learning) and applying the experience to a new context (transfer of learning)" (Bruce, 2002).
2. Educators need to change their role from "sage on the stage" to "guide on the side" (King 1993) in line with the constructivist approach whose main aim is to develop students' ability to frame researchable questions that enable independent exploration of the subject studied (Doherty et al, 1999). At the same time, learners must be invested with the responsibility for

their learning (ACRL, 2000) in order to ensure that the appropriate degree of motivation and control underpin their learning experience.

3. ACRL (2000) and ANZIIL (Bundy, 2004) propose a campus-wide collaboration between faculty, library (as well as staff from other support areas) and administrative staff. Such a holistic approach also reflects the view that “information literacy isn’t just a library issue but, it is an issue for all of HE and society as well.” (Snively, 2001: 2). By implication this calls for HE institutions to act as primary promoters of information literacy education. However, the need to fully integrate information literacy education is set against the challenges facing any academic institution that strives to achieve this in practice. Moore (2002) warns that the demands of this new learning culture “might be in conflict with cultural standards and expectations concerning the roles of students and educators.” The remaining part of this paper will explore the challenges experienced by the students, an HE institution and the information literacy tutor.

The challenges of empowering the learner

The implications of making the students responsible for their learning raises the need to address students’ spoon-feeding expectations (Andretta, 2005) which, at least initially, inhibit any effective interaction with an independent learning approach. At postgraduate level this is exemplified by an over-reliance on the tutor’s guidance to fill the technological gap experienced by some mature students: “Some occasional ‘spoon-feeding’ might be very useful, perhaps particularly for those of us who have done their first degrees in the days when ‘IT’ was merely a ‘character’ from a Coca-Cola advertisement. At undergraduate level the spoon-feeding culture is reflected in the “what do I do now?” attitude (Andretta, 2002) which shows an unquestionable expectation by the students for a tutor-led learning experience. This has been addressed by the use of a diagnostic questionnaire which produces a learning profile customised to reflect the learning needs of each student. On the basis of this feedback students take control of their learning by assessing their initial strengths and weaknesses in information literacy competences which in turn informs their decision on whether to attend the class-based activities or complete the module remotely. The impact of voluntary attendance is generated by the analysis of the learners’ feedback when asked to comment on whether non-compulsory attendance is perceived as having a positive or a negative effect on their learning experience. The feedback provides two contrasting views, not surprisingly the one in favour of voluntary attendance associates this with the opportunity to take control of the learning process:

“Non-compulsory attendance for the information literacy module is good because it encourages independent learning. Some people argue that attendance of the module drops because attendance is non-compulsory, but I believe this is not the case. If an individual is motivated to learn, then he will do it whether he attends the lectures and seminars or not.”

The view in favour of compulsory attendance, on the other hand, was expressed by students with low motivation and a low sense of responsibility, as they require external compulsion to drive their learning: “Non-compulsory attendance was not good because sometimes I need some kind of obligation to force myself to go to college and study.” Another comment also highlights the culture of compulsory attendance that underpins provision elsewhere, thus undermining the rationale for independent learning promoted by information literacy: “[...] all other modules have compulsory attendance, why should information literacy be any different?”

The institutional challenge: clashes of pedagogical cultures

The issue of voluntary attendance has generated a hostile response from senior management at the University as this contradicts the institution's position on learning and teaching. The problem presented here implies a serious pedagogical mismatch between the attempt to develop independent learners, promoted by the information literacy module, and the institution's learning policy based on the principle of face-to-face provision as the main and most effective learning strategy. This is particularly evident at undergraduate level where it is clear that the University promotes the view that regular attendance equals academic success. An example of this is shown by the question asked during the evaluation of the information literacy module as part of a review of the university-wide undergraduate scheme in March 2005:

“What use is made of the available information for tracking student attendance? Are efforts made to make it clear to students that their chances of success are greatly improved by regular attendance?”

Given the emphasis the information literacy module places on independent and remote interaction with the learning resources, particularly in an increasingly digital learning environment, there is a need to redefine attendance to encompass a more flexible provision that includes face-to-face as well as online learning. To appreciate the full impact of the module, therefore, the concept of ‘attendance’ should be redefined as the students’ experience of the different modes of learning and the quality of engagement with the learning resources.

The issue of monitoring attendance to track students at risk was also raised in October 2004 by the management of the University-wide undergraduate scheme. The problem started with the request by the scheme for the attendance registers of the information literacy module. The implication of such a request points to the crucial role the scheme places on attendance to the exclusion of any other approach. When informed that the idea of compulsory attendance was antithetical to the principles of making the students take responsibility for their learning, and therefore that no registers were kept, the scheme management’s reaction showed little understanding of the principles underpinning information literacy education. For example the local scheme manager wrote:

“I am surprised that the pedagogic rationale for IT does not mean that attendance is a requirement. This module is also the Higher Education Orientation (HEO) module which prepares students for study at degree level and as such it must surely inculcate the importance of attendance.”

The lack of understanding of information literacy education is reflected by its mis-description as IT, thus illustrating the lack of awareness of the complexity encapsulated in the former, as opposed to the mechanistic nature of the latter (Webber, 2001). Moreover, the assumption that learning can only occur with physical attendance and this was compounded by the refusal to acknowledge that, in this module, students engage with the learning mode that best suits their needs (Andretta and Cutting, 2003). The learning profile generated by the diagnostic questionnaire offers either a slow route through the syllabus, complemented by face-to-face support, or a fast track to the assessment, complemented by online support. Such a flexible provision does not suit the rigid attendance-record framework set by the scheme. Management’s insistence on the use of registers to track students at risk also implies that the taking of registers is the only way of identifying academically weak students, while, in practice, the students who do not attend class-based activities may not be the ones at risk of dropping out, but on the contrary, may be taking advantage of remote access to the learning resources.

By this time, however, the matter had escalated beyond a constructive discussion on the merits of voluntary attendance, with senior management interpreting the author's lack of compliance as a challenge to their authority. A final demand for registers was sent by the Director of Undergraduate Operations to the Head of Department responsible for the information literacy module. The University's position on the tracking of student attendance was reiterated and, worst of all, the pedagogical rationale given in support of voluntary attendance was dismissed as obstinate insubordination from the module leader:

“The matter of tracking student attendance .. has been endorsed by the University Executive, and the high level University Retention Progression and Achievement Group [...] I am advised [...] that one of your HEO Module Leaders, Ms Andretta, has expressly refused to undertake this function, or to provide a register for the [...] module on the grounds that 'it is pedagogically inappropriate to do so' claiming that to 'monitor attendance will undermine the module's pedagogic strategy'.... students simply MUST attend a significant number of sessions, particularly at the early stages [...] To claim that attendance can not be monitored is simply unacceptable.”

The stalemate was ultimately resolved thanks to the Head of Department's support for the continuation of voluntary attendance practices in the information literacy module on the basis that compulsory attendance run counter to the whole learning-how-to-learn and HEO ethos, and also on the tested premise that physical absence does not indicate absence of engagement. The situation generated by conflicting pedagogical cultures, and illustrated by the confrontation over the issue of compulsory vs. voluntary attendance, can be ranked as one of the most serious challenges to information literacy education. It is clear that had the Department complied with senior management's demands such a decision would have marked the end of information literacy provision at undergraduate level in DASS.

Tutors as facilitators of learning: the never-ending cycle of practice and reflection

The learning-how-to-learn approach, promoted by information literacy education, is firmly rooted in problem-solving and critical thinking practices that are found problematic by students and educators alike. However, Richard Paul attributes the reluctance on the part of the learner to engage with the critical thinking process to the unwillingness of the educators to integrate critical thinking and problem-solving approaches in their practices for the simple reason that these methods are “effortful” (Paul, 1992: 23). Information literacy practice in DASS confirms that adopting a learning approach that fosters critical and lateral thinking is time consuming and needs constant editing of formative activities to take account of the dynamic nature of the information systems used (Andretta, 2005). Similarly, the iterative process of learning, also promoted by information literacy, places an emphasis on formative assessment practices and a considerable burden on the educator to provide immediate feedback either online or face-to-face. In most cases the time spent generating this feedback is not included in the educator's workload and therefore the effort underpinning information literacy provision is not acknowledged. The following data gives an indication of the amount of work required to support students online that is outside the timetabled activities. At undergraduate level, for example, a cohort of approximately 150 students generates on average 500 email messages that provide student-support at the topic formulation stage of two assessed tasks. Similarly, the employment of three formative assessment exercises in AIR for a cohort of approximately 40 students can generate in excess of 100 scripts. Here feedback needs to be given within a short time after submission to maximise its benefit to students.

Conclusion: empowerment seen from the learner's perspective

Despite the many difficulties encountered when attempting to empower the learner, the positive impact of this approach on the students is evident from the comments they make at the end of the information literacy provision. The main theme that runs across most of the feedback shows that students travel from uncertainty and confusion to a level of increased confidence in their ability to apply their information literacy competences beyond the module they have completed. Not surprisingly, postgraduate students emphasise the issue of transferring these competences to other modules and beyond to their professional environment: "The AIR module has furnished me with useful transferable skills. What are needed now are opportunities for practice and reflection – not only in my dissertation but also in my future career". Similarly, other students comment on the way the AIR module has improved their supporting role by raising their awareness of users' needs as opposed to simply acting on untested assumptions. When asked about the impact of AIR on current information practices a student replied: "A great deal working in a public library in a diverse London Borough. It will enable me to look at the community from their perspective and provide them with what they want, not what I think they need!" Increased confidence also seems to permeate the working relationships that librarians develop with other professional groups, and to prepare them for lifelong learning conditions: "[AIR] has given me a greater confidence when dealing with academics/academia. It has made me look, increasingly, to evidence-based decision making when confronted with changes in the work environment."

At undergraduate level the empowering effect of information literacy is often associated with the development of independent learning and improved academic performance:

"The information literacy module enables students to learn very important skills which are needed for studying at University. It encourages self-discipline [...] I feel I have benefited considerably from this module as it has enabled me to develop skills which will be beneficial for my forthcoming studies [...] I have learnt different ways of retrieving information which I did not know before and I have also learnt to work more independently."

Although information literacy at undergraduate level is sold to the students as a way of enhancing their studies and get a better degree, some also appreciate the transferability of these competences beyond academia: "The fundamental aim of the module is to develop our handling of information. After taking this module, I believe that I can now handle and use information effectively both for my degree and in other areas of life." This paper has attempted to illustrate the many challenges faced when adopting the information literacy approach as a framework for learning. At present, empowering the learners often feels like betting on the underdog. One would hope that in the not so distant future the impetus from lifelong-learning will encourage the development of a supportive learning environment in HE institutions that will enable us to even the odds.

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