
Institutionalizing Information Literacy in Tertiary Education: Lessons Learned from South African Programs

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ABSTRACT

THIS PAPER PRESENTS AN OVERVIEW of the development of current practice in information literacy education in tertiary institutions in South Africa. The policy framework affecting information literacy is examined from multiple perspectives. An examination of the literature identifies key concerns that are used in the compilation of a small survey instrument to establish current practice. The impact of institutional policies, finding educational strategies that meet the identified objectives of information literacy, diversity in students' backgrounds and abilities, and ultimately the assessment of performance all emerged as significant. The concept of multiliteracies is suggested as a useful approach to conceptualizing information literacy as central to student learning. Future directions are suggested.

INTRODUCTION

The concept of "information literacy," which first appeared in the literature during the 1970s and which was comprehensively discussed in a major review paper (Behrens, 1994), developed in response to the growing recognition that finding, selecting, and using information was becoming increasingly complex (p. 311). During the 1980s this term gradually started to replace the concepts of user education and library skills, which essentially emphasized library as opposed to information usage (Behrens, 1993, p. 124).

In the 1990s, at least partly as a result of the increasing importance of information literacy in response to rapid technological developments, the Association of College and Research Libraries (ACRL) published a set of five "Information Literacy Competency Standards" for the U.S. (2000).

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Similarly, the Society of College, National, and University Libraries (SCONUL) in the UK published a Seven Pillars Model of Information Literacy, which details the seven major information skills required by all students (1999). Essentially, there seems to be agreement that the information literate person is one who can:

- Recognize the need for information;
- Access information efficiently and effectively;
- Evaluate information and its sources critically;
- Incorporate selected information into one's knowledge base;
- Use information effectively to accomplish a specific purpose;
- Understand the economic, legal, and social issues surrounding the use of information;
- Access and use information ethically and legally.

Implicit in such an understanding of the concept of information literacy is the recognition that a logical progression is implied and that certain skills have to be mastered before a person can perform all the functions as outlined above. Recognizing a need for information has to precede the process of access, which in turn requires a number of different skills such as familiarity with information resources, with the library and with various means of accessing resources in different media. Evaluating and using information are "higher order" cognitive skills (Sayed, 1998, p. 13), which may be employed to develop new ideas and knowledge. Charles McClure (1994) expressed this in an early model of information literacy which relates information literacy to other literacies:

At one level, an individual must be able to read and write—the traditional notion of literacy. At another level, the person must be technically literate, e.g., be able to operate computer, telecommunication, and related information technologies. At a third level, people need media literacy, and at yet another level they need network literacy. All of these types of literacies can be cast in the context of information problem-solving skills. (p. 118)

McClure therefore places information literacy at the center of the overlapping literacies as outlined; in his view it is the skill in which the others are subsumed.

INFORMATION LITERACY IN SOUTH AFRICA: POLICY ISSUES

The interest in information literacy has been spurred by systemic transformation of education at all levels, and the increasing adoption of ICTs in South African society. The policy framework for information literacy in tertiary institutions is derived from three policy domains:

- Education policies;
- Information communication technology (ICT) policies;
- Library and information services policies.

Government Approaches

The responses of the different sectors to information literacy issues vary according to their primary concerns. For example, departments such as that of communications and trade and industry stress economic participation, citizenship, and the broad aims of government's agenda for the information society. While there is no single document setting out the government's policy on the information society, it is possible to discern the importance attached to it by the government and its belief that ICTs can be used to facilitate and accelerate economic, educational, and social development. The documents and statements resonate with government's keen awareness of the knowledge-based economy and its desire to raise awareness of the benefits for citizens of becoming an information society.

The government has placed much emphasis on the link between development and ICTs and is engaged in a number of national and global projects to promote the rollout of ICTs and their use. Explicit commitment to various conceptions of information literacy is apparent in many of the associated policy statements and documents. So, for example, South Africa participated in the Okinawa IT Charter adopted at the G8 Kyushu Summit of 2000. This represented collaboration between the world's richest countries and a number of developing countries to help bridge the digital divide. One of the clauses reads:

The policies for the advancement of the Information Society must be underpinned by the development of human resources capable of responding to the demands of the information age. We are committed to provide all our citizens with an opportunity to nurture IT literacy and skills through education, lifelong learning and training. We will continue to work toward this ambitious goal by getting schools, classrooms and libraries online. (Okinawa Charter on Global Information Society, 2000, No. 11)

Announcing the imminent publication of the government's policy position on electronic commerce, Department of Communications Director-General Andile Ngcaba added that, in addition to creating a regulatory environment for electronic commerce, "Government also has to promote education to increase information literacy among all citizens in order to allow operators and consumers to reap the full benefits of electronic commerce" ("Discussion paper," 1999, para. 2).

One of the paragraphs in the *Green Paper on Electronic Commerce* reflecting on the theme of digital literacy refers to the problems of basic literacy and its impact on people's ability to develop the skills necessary for the information society:

In a country where literacy remains a huge and seemingly intractable problem, what resources and programs are required to develop an awareness of the potential benefits of the information age; related technologies and e-commerce in particular? Adult and life-long learning

programs, tertiary and higher education schools, and in some countries even early learning centers are the focus of review and attention. Policy makers should institutionalize ICT awareness and skills development within the labor market and prepare school leavers for an increasingly knowledge-based society (Department of Trade and Industry, 2000, Digital Skills section, para. 1).

The South African government has recently launched "Info.com 2025," the National and Government Information and Communication Technology Strategy, which serves as a collective program of ICT projects designed to establish a networked information community and make South Africa globally competitive. Info.com 2025 addresses issues of policy, infrastructure, human capacity, and local content within ICT industries. One of its objectives is to facilitate and promote education and training through the use of telecommunications technologies. The plan is to install public information terminals at main post offices and to set up community information centers ("telecenters") in towns and villages (Ngcaba, 1999).

Information Literacy in the Educational Domain

The education domain also has an interest in the rollout of ICTs and the development of skills to use them effectively. The Department of Education is engaged with a Technology Enhanced Learning Initiative (TELI). "[The] Strategic Planning Committee has identified six 'lead' projects [to] create a technology-enhanced learning network" (South Africa. Department of Education, 1997, p. 1) to take forward the department's strategy for the use of technology in education and training. One of the projects is to develop "a generic information literacy course for use in schools, community centres, industry-based training sites, and other appropriate sites of teaching and learning" (South Africa. Department of Education, 1997, p. 1). In elaborating the concept of competence in this paper, it is clear that the view adopted is a narrow one focusing on computer skills. The broader, more inclusive conception of information literacy for schools features in the general curriculum, where one of the generic outcomes indicates that the learner is expected to be able to "collect, analyze, organize and critically evaluate information" (Zinn, 2000). However, learners at schools have very limited exposure to either school libraries or computers. The *School Register of Needs*, a national survey, found that fewer than 30 percent of schools had libraries (Department of Education, 1997, p. 8). A survey of computers in schools showed that only 13.5 percent of schools had a computer or computers (Computers in schools, 2000). So, while the intent is clear that there should be inculcation of information and computer literacies in schools, the reality is that by the time students reach higher education institutions, the vast majority have had little or no exposure to library and information resources and do not possess the skills to use them.

Thus, the burden for information literacy education is greater at the tertiary level than one would normally expect. University and technikon

libraries operate in the higher education sector and therefore align their policies with those of their sector. In the education domain, reference to information skills and information literacy is made in a wide range of policy documents. A recent policy document, issued by the Council on Higher Education, dealing with the national qualifications framework, does enter the debate about the nature of generic skills and their supposed transferability. The report cautions that generic skills, such as information competence, cannot be taught in isolation from the context of the discipline in an add-on module (South Africa, Council on Higher Education, 2001, p. 109). The Council on Higher Education has specified information competence in all levels of qualifications granted by universities and technikons. For example, at Exit Level 7, completion of a general degree, the formulation for this competence is specified as “well-developed information retrieval skills. . . using IT skills effectively” (2001, p. 60). The National Research Foundation (the major research-funding agency in South Africa) has adopted ICTs and the information society as one of its focus areas to support. They point to the reality of low levels of information literacy and the need to give people previously excluded the opportunity to move into the information society (National Research Foundation, 2001).

The National Commission on Higher Education’s Working Group on Library and Information Technology highlighted the role of information literacy in their report to government. The report notes that as “information literacy is an integral part of the profile of a lifelong learner” and given the diversity of the student population, information literacy programs are necessary (1996, p. 48).

Library and Information Services (LIS) Policies

While different entities in the government use varying terms to express the skills associated with the goal of information literacy (e.g., information technology literacy, computer literacy and digital literacy), the LIS sector tends to stress academic achievement, with tacit or explicit references to life-long learning and the presumed requirements of employers, and uses the terms “information literacy” or “user education.” The report of the Interministerial Working Group on the Library and Information Services (LIS) Function pointed out that one of the values of the South African LIS system is to contribute to socioeconomic development of all South African people through information literacy (Department of Arts, Culture, Science and Technology, and Department of Education, 1997). Information literacy also features in two recent acts of Parliament. One of the functions of the newly established National Council for Library and Information Services, established by an act of Parliament in 2001, is to promote information literacy defined as, “the ability of learners to access, use and evaluate information from different sources, in order to enhance learning, solve problems and generate new knowledge” (South Africa, 2001, Definitions section,

p. 2). The act of Parliament that brought into being the National Library of South Africa by amalgamating the State Library in Pretoria and the South African Library in Cape Town, refers explicitly to the promotion of information awareness and information literacy as being one of the functions of the National Library (South Africa, 1998).

The inclusion of information literacy in two important pieces of legislation governing LIS is a measure of the ascent to prominence of this concept in contemporary South African LIS thought and practice, as reflected in two very important LIS institutions. The National Council is a new and long-sought institution whose major task will be to advise the minister on matters relating to LIS in order to "support and stimulate the socio-economic, educational, cultural, recreational, scientific research, technological and information development of all communities in the country, and [to] provide optimal access to relevant information to every person in an economic and cost-effective manner" (South Africa, 2001, p. 2). In addition to its traditional functions, the National Library of South Africa provides leadership to the LIS community in South Africa.

The Coalition of South African Library Consortia (Cosalc), whose members are drawn almost exclusively from higher education libraries, has adopted user education as a strategic direction for the consortia (1999). Some of the consortia, notably the consortium in the Western Cape, were among pioneers of the movement. As yet, the community of higher education libraries has not produced a set of information literacy standards such as those developed by the Council of Australian University Librarians (2001), ACRL, or SCOUNL. It is significant that the Department of Education/European Union Higher Education Libraries Programme, whose purpose is "to help redress the resource imbalances of the past in the Higher Education Sector. . . [in] historically disadvantaged institutions" (Department of Education/European Union, 1997, About the Program section), has highlighted the importance of information literacy in the development program. Each of the seventeen participating institutions has hired an information literacy librarian and information literacy education has been an important aspect in the education and training component.

Convergence of Government and LIS Policy Perspectives

A reading of policy texts in the government domain and in the LIS sector shows that, while the paths are not divergent, the trajectories have not yet converged. The government's primary focus is information technology literacy, while libraries have a much broader view of information literacy. LIS theorists frequently express exasperation that government documents stop short of making explicit the links between a desired outcome (such as lifelong learning) and the identification of LIS as one of the agencies tasked with implementation. So, for example, in her analysis of lifelong learning in the new transformed educational system, Behrens is critical of

the narrow conceptualization in a range of government policy documents. Commenting on the foundational *White Paper on Education and Training* (South Africa, 1995), Behrens concludes: "In view of the *White Paper's* integral use of the concept of lifelong learning, the lack of outright reference to the importance of information skills (and the concomitant resource based learning) in the learning process is a serious omission" (1995, p. 261).

While the government policy documents are frequently vague about implementation and agency, the strategy adopted by LIS policy documents is to identify key government policies and to draw links of relevance for action in libraries. So, policies tend to assert claims that libraries should have a unique and favored status in giving programmatic content to the government's goals of an information society.

INFORMATION LITERACY TRAINING IN TERTIARY EDUCATION SINCE 1997

The South African library literature on the whole area that encompasses user education, library skills, bibliographic instruction, and information literacy has been fairly scant until recently and was comprehensively surveyed and discussed by Behrens in 1993 (pp. 124–130). In this review she acknowledges that, while most South African academic libraries were probably paying attention to teaching information skills in various guises from the 1980s, details of such courses were not often reported in the literature (p. 125), so that they were not available for discussion or close scrutiny. A further problem was that these training programs were "neither compulsory nor credit-bearing" (Mpendulo, Adams, Pienaar, & Rawlins, 1999, p. 37) making it very difficult to assess their efficacy or lasting value.

A search through the literature since Behrens's review of 1993 revealed some increase of published material on information literacy interventions and activities in South Africa. A major impetus in the awareness of the importance of information literacy was provided by the visit of Patricia Senn Breivik to the five tertiary academic institutions in the Western Cape and the subsequent production of what became known as the "Senn Breivik report" in which information literacy was identified as a key factor in "co-operative academic planning . . . in order to achieve transformation with limited economic resources" (Underwood, 2000, pp. 15–16). The resulting "INFOLIT Project," with substantial external funding, was specifically designed to promote information literacy, to conduct a needs assessment and an audit of current programs, to promote information literacy projects in the five institutions and to investigate both local and international models which could be applicable to the local situation (Underwood, 2000, p. 16).

Partly as the result of the INFOLIT initiative above, a new and credit-bearing course, "Information tools and skills" was launched at the University of Cape Town (UCT) in 1996 (De Jager & Nassimbeni, 1998) and has continued ever since. In addition, information literacy training courses were

initiated and reported by the Universities of South Africa (Thompson, 1998, pp. 125–129); of Pretoria (Thompson, 1999, pp. 36–37); of Natal (Leach, 1999, pp. 58–60; Prozesky, 1999, pp. 56–57) and at the Natal Technikon library (Rawlins, Pienaar, Mpendulo, & Adams, 1999, pp. 54–55). The problems of designing a curriculum and offering a course within the constraints of distance education were specifically addressed by Machet and Behrens (2000, pp. 8–14).

Makhubela reported on a joint information literacy project between the University of the Western Cape (UWC) and UCT, which was attempted in 1997 (2000b, pp. 141–143). Another joint project, between the Universities of Pretoria and Potchefstroom, was briefly reported by Thompson (2000). The journal *Innovation* has published several papers on aspects of information literacy and at the end of 2000 dedicated an entire issue (no. 21) to the topic. The title of this issue, “Literacies and Learning: Reflections on Information Literacy in Southern Africa,” foreshadows the position to be taken in this paper: that information literacy comprises a number of interrelated “literacies.”

The reported courses noted above were primarily directed at undergraduate students; they were aimed at teaching information skills and not simply library skills (Leach, 1999, p. 58) and were “generic” in the sense that they were designed for students from different disciplines and therefore did not deal with curriculum-specific material at any great depth (Thompson, 1999, p. 36). Walker comments on the still prevailing reluctance of academic staff to recognize that information literacy is “fundamental to the modern acquisition of knowledge” and has to be integrated into all taught courses (2001, p. 62). In this regard, Makhubela notes that there has not been much assessment of whether such courses “make a difference to students’ learning” (2000b, p. 142) and expresses doubt whether the information skills learned in generic courses and that have not been embedded in curricula, will really prove to be transferable (p. 143).

One exception to this general trend of directing generic courses at first years or undergraduates was found at the University of South Africa, where in 1997 a course in research information skills was specifically designed for master’s degree students in chemistry (Thompson, 1998, p. 125). In this course, active involvement of lecturers in chemistry was sought and obtained (p. 126) so that the course was fully integrated into the curriculum. Designed at a distance education institution, this course made use of a workshop component to provide students with practical, hands-on training in information skills (Ten Krooden, 1999, pp. 82–92) and used an innovative method of portfolio evaluation with which to measure student performance (Fourie & Van Niekerk, 1999, 2001).

At UCT a course directed at honors degree (postgraduate) students was introduced in the Faculty of Humanities at the beginning of 2001. This

course was still "generic" to a certain extent, as students from a range of different departments on the faculty were enrolled (De Jager & Nassimbene, 2001), although informal attempts were made by the faculty to take into consideration the requirements of students.

One further example of embedding information literacy skills into the curriculum may be found in another course that had developed from the original INFOLIT Project. In the Botany Department at UWC, an experimental multimedia course delivered on the World Wide Web emphasizes the student-centered approach together with resource-based learning and states as an explicit educational goal the promotion and development of information literacy among participating students (Keats, 2001). This course may be regarded as an example of how faculty members who have been made sufficiently aware of the importance of information literacy, will act independently to make it an integral part of their courses.

During the 1990s, South African teachers and librarians generally began to understand that, while the body of literature on information literacy from the Anglo-American world is relevant to local circumstances, it was also important to understand that learners in South Africa come to the world of information with specific and often severe handicaps that might not be so evident in the rest of the world.

The INFOLIT needs assessment study was published as a monograph in 1998 (Sayed). Walker described this work as a product "from South Africa's leading information literacy project" (2001, p. 61). It consisted of a major overview of the state of information literacy on five tertiary education campuses and revealed the large discrepancies between students from "historically disadvantaged" (i.e., black) and white universities. Sayed (1998, pp. 6-7) emphasized that information literacy teaching in the South African context should additionally recognize the fact that all students have not had equal prior access and exposure to educational resources. The same opportunities in which to develop skills that might be taken for granted in western school leavers, have not been available to the majority of entrants into South African tertiary institutions. Students bring to higher education a set of previous experiences, convictions, and disciplinary traditions that may either hinder or enhance their learning and these should be taken into consideration in activities aimed at developing information literacy in students.

In the same context, it was also increasingly recognized that the skills required for information literacy might not necessarily be generic, but rather "highly dependent on context" and that, as the tools and ways of handling information are in a constant state of change and development (Sayed & De Jager, 1997, p. 9), teaching information skills should be firmly embedded in subject knowledge. It might therefore follow that so-called "generic" courses that are not firmly integrated into the curricula of specific courses might be less appropriate for inculcating information skills of lasting value.

Investigating Current Practice

At the LIASA (Library and Information Association of Southern Africa) Conference in September 2001, it was agreed that user education and information literacy would be a focus area of the Research, Education and Training Interest Group (RETIG). A number of different institutions were represented at this meeting and identified themselves as either interested in providing information literacy training or already were active practitioners. An e-mail questionnaire was therefore designed to assess the extent of institutional support for information literacy at twenty-six identified institutions of tertiary education in South Africa, as well as to investigate the nature and extent of information literacy activities that could be identified. Responses were obtained from twelve tertiary institutions in South Africa. Seven universities and five technikons were represented. While this overview therefore does not claim to exemplify all information literacy initiatives in South Africa, it may be regarded as indicative of the process and development of interventions by identified enthusiastic participants at South African tertiary education institutions and may reinforce or expand some of the findings in the recently published literature.

The importance that the central government has placed upon issues related to information literacy, such as the inculcation of generic skills and recognition of prior learning, has been discussed above. The first question that was explored in the questionnaire, therefore, was whether the respondents' institutions had shown any strategic awareness (as expressed in strategic plans or policy statements) of the importance of information literacy.

Responses indicated that only one institution placed primary emphasis on "educating for life" and providing "a foundation of skills, knowledge and versatility that will last a life-time, despite a changing environment" in its mission statement. Otherwise, there was not much explicit evidence of institutional strategic plans or policy statements that specifically acknowledge a responsibility for inculcating information literacy in students. It was noted that one institutional strategic goal recognized the importance of student development. A further two institutions were of the opinion that making an information literacy module compulsory for all first-year students, or employing a librarian responsible for information literacy, implied institutional support.

In response to this question, four institutions referred to library rather than institutional mission statements. One stated that an information literacy task team from the library defined its own mission statement to enhance teaching, learning and research by providing information skills training to staff and students in support of the university's own mission statement. Another's library mission statement read that the library would "be sensitive to its users' different information needs and varying levels of information literacy skills, and contribute to the development of the users' abilities to retrieve, analyze, evaluate and organize information." One in-

stitution noted the importance of independent and lifelong learning and sensitivity to differing information needs; another stated that user education was mentioned in the library strategic plan.

The respondents were asked where in their institutions the responsibility for the teaching of information literacy skills and competencies resided and whether responsibility for teaching resided in the library, in academic development divisions, in a department of communication or information studies, or in academic departments. Responses made it obvious that there was some evidence of cooperation between the various libraries and academic departments. At institutions that had departments of communication or information studies (or science), four in all, the departments were jointly responsible for courses with the libraries or themselves offered dedicated courses.

A number of queries related to existing courses directed at inculcating information skills: whether the courses were offered as stand-alone modules or integrated into subject curricula and whether they were differentiated according to years of study. Issues of assessment and credit, as well as methods of course delivery, were also explored.

Reports were received of stand-alone and generic courses at six of the responding institutions and six reported both attempts at integrating courses into subject curricula, often at first-year level, as well as running generic courses. Some institutions also indicated that new courses were being planned, or that subject librarians were sometimes asked by academics to present subject-specific classes to their students. The impression was gained that, although practitioners were aware that information literacy should ideally be fully incorporated into curricula, the primary evidence of this being put into practice was found where subject librarians offered subject specific training in the use of information resources.

Courses at the various institutions were clearly differentiated according to year of study. Eight institutions offered courses aimed specifically at first years, but only two of these were compulsory. In two instances there were reports of courses specifically designed for postgraduate students.

There seemed to be evidence of an increasing need for assessment of information literacy courses. Seven institutions reported offering fully assessed courses; three reported some assessment, and two none. Where credit-bearing courses had been introduced, they were fully assessed, by means of assignments, tests, portfolios or examinations; otherwise questionnaires or course evaluation forms were used by all but two of the respondents.

Interestingly, even where courses were assessed, they were not always credit-bearing. Four institutions had no credit-bearing courses on offer. Course delivery was varied; six respondents specifically noted reliance on computer-aided instruction or work in computer laboratories. Two of the responding institutions offer distance education and they both noted that their distance-training packages were augmented by contact sessions or

workshops with librarians. The distance education institutions explicitly mentioned the use of study guides and “activity books” as course materials. Other institutions mentioned computer-aided instruction (with or without contact sessions), videos, lectures, tutorials, practices, and PowerPoint presentations as aids to course delivery.

A list of information literacy competencies, based on a breakdown by Godwin (2001) and representing both the “lower order” and the “higher order” information skills, was offered to the respondents with the request that they tick all that are taught in their institutions. The competencies were:

1. To recognize a need for information;
2. To define a topic as a preliminary step in the search for information;
3. To select the main concepts in a topic;
4. To identify keywords to search for information on a topic;
5. To understand that a range of information sources is needed to re-search a topic;
6. To know that general reference sources may be used to gain a broad understanding of a topic;
7. To know that different kinds of information will be found in different kinds of sources;
8. To be able to choose the most appropriate resources; both print and electronic;
9. To be able to distinguish among catalogs, indexes, online databases, and Web resources;
10. To be able to locate and access information from different resources;
11. To know how to formulate search strategies;
12. To be able to construct search statements;
13. To use Boolean logic;
14. To know how search engines work;
15. To be able to compare and evaluate information from different resources;
16. To know about issues such as currency, bias, and authority;
17. To be able to organize, use, and communicate information;
18. To quote and cite others’ work correctly;
19. To know about issues such as copyright and plagiarism;
20. To produce and present an organized piece of work;
21. To synthesize and build new knowledge based upon existing information.

Seven institutions responded that they taught all of them. The competency that was most frequently *not* taught was knowing how search engines work (“14”; five institutions) and there was some evidence of doubt in these five institutions as to whether they were teaching the “higher order” information literacy skills of evaluation, communication, production, presentation and synthesis of information (“15”, “17”, “20”, and “21”). Two institu-

tions mentioned that these skills were taught by the academic departments and not by the library; two suggested that they were not really taught at all.

The final question, asking for elaboration or any further comments on the issue of information literacy at the respondents' institutions, produced further points of interest. One institution noted that, while they believed there was "a definite need for information literacy to be integrated into the curriculum," it was not happening, as the academic staff needed to be "brought on board." They were attempting to address this issue by holding workshops for academics during vacation periods and in so doing sensitize them to what the library could do for them and their students. Another institution, also concerned about the lack of information literacy on campus, mentioned that about 60 percent of students were not computer literate and 70 percent were not library literate.

Common Concerns

The results of this survey seem to reinforce previous findings. Behrens, for example, had commented that South African librarians by and large did not document and publish their information literacy activities. The poor response to this questionnaire (responses from twelve institutions out of twenty-six) and the fact that it only produced evidence of fully accredited courses at four institutions, leads one to believe that librarians are still relatively unwilling to document and discuss their information literacy activities.

The government's lack of recognition of the contribution of libraries to its developmental goals seems to be paralleled by the responding institutions' general failure to acknowledge the role of information literacy in their strategic mission statements. Championship of information literacy at the highest levels of institutional governance has been shown by Bruce (1994) to be pivotal in the successful introduction of information literacy programs.

It is clear both from the literature and from the survey that most interventions are still primarily generic in nature in spite of an apparent awareness that information literacy is best taught and learned where it is fully integrated into subject curricula. It also seems evident that there is an assumption that these skills are transferable and an essential component of lifelong learning, although this has not been thoroughly investigated.

Both from the published literature and the survey, it is evident that practitioners are increasingly aware of the importance of the assessment of courses. The actual results of such assessments have however not been rigorously investigated. Walker "anecdotally" mentions that a seven-week intervention at the University of the Witwatersrand had a "noticeably positive effect on performance" and that students had evaluated a course very affirmatively (2001, p. 62). Most other reports on assessment concerned student evaluations, which were primarily favorable. (De Jager & Nassimbeni, 1998, pp. 139-143; Fourie & Van Niekerk, 2001, pp. 115-116).

It has also been noted in the international literature that there seems to be a measurable discrepancy between students' perceptions about their own information literacy skills, and abilities acquired after interventions, and their actual skills as measured by answers to practical questions. Maughan had observed, after an investigation at the University of California-Berkeley, "graduating seniors surveyed held a higher opinion of their library research skills than they were able to demonstrate by their test scores" (2001, p. 77).

Such discrepancies were also evident in the Western Cape, where student information skills were tested after courses on information literacy on two campuses (De Jager & Nassimbeni, 2001). It was clear from this study that the results of information skills tests were "unimpressive" in both cases and, in spite of students' declared confidence about performing information tasks, the actual performance was poor.

One survey respondent suggested that disappointing results from courses might be more widespread than has been reported in the literature: "Our students wish to learn material by rote and struggle with the concept that they are required to do something different. Another problem is that students do not actually go to the library and examine the resources that we cover in the course, such as indexes. For many students even classification is a mystery. . . ." In South Africa, therefore, problems that have been identified elsewhere, seem to be exacerbated where students come to higher education without even the lower order information skills that might have been regarded as prerequisite.

Responses from the survey above also confirms Rader's observations of as early as 1996 (p. 73) that South African academic librarians have not managed to form the productive partnerships required to embed information literacy into curricula. It is therefore proposed that librarians are still not sufficiently sensitive to the academic discourses to have been able to convince faculty that they have a meaningful role to play in curriculum construction. They have also been insufficiently pro-active in identifying champions for information literacy in the curriculum among faculty, as only a few examples of integrated courses could be identified.

Charting the Way Forward: Multiliteracies

McClure's information literacy typology provided an early example of the recognition that a number of different literacies combine to form information literacy. Sayed's focus groups of faculty members confirmed that, especially in South Africa, "information literacy consisted of an infusion of various different skills, many of which may be taken for granted by teachers and lecturers, but which students simply did not possess" (1998, p. 9). He also noted that not many writers refer to the role of students' prior experiences of learning in their handling of information in higher education (p. 7). These insights do not seem to have played a significant role in any of the South African information literacy interventions reported above.

The New London Group, who use the term “multiliteracies” to describe “the multiplicity of communication channels and media and the increasing saliency of cultural and linguistic diversity” (1996, p. 63), provides one with conceptual tools and a methodology with which to approach this problem. They emphasize that the concept of literacy is not a singular construct, but that textual literacy is connected to the visual, the spatial, and the behavioral literacies. Methodologically they propose that scaffolding and explicit instruction can reduce complexity; that situated practice should take into consideration students’ prior knowledge; that overt instruction should include students talking about what they are learning; critical framing occurs when students relate what they have learned to their lives and finally transforms practice when students apply what they have learned to a new context (pp. 83–88).

A few isolated instances that attest to the validity of such a multiliteracy approach at integration may begin to provide new direction to South African academic librarians. Two initiatives that have subsequently developed out of the original INFOLIT projects may be used to illustrate some of the pedagogical principles of the New London Group.

A course developed for first-year students at UCT deliberately set out to incorporate the framework of multiliteracies in its pedagogic practice in the context of teaching independent Web searching to very inexperienced students. Scaffolding consisted of restricting students’ initial attempts at searching to a limited database in order to ensure success. Incorporating students’ knowledge of South African rural contexts into the exercises required by the course ensured situated practice. Guiding the online class discussions and encouraging students to relate what they have learned to their own experiences provided both overt instruction and critical framing (Archer, Walton, & Wilson, 2000). At the conclusion of this course, the instructors could claim that “Students’ use of online sources was more sophisticated and critical than in previous years, and their general facility with web searching certainly improved” (p. 45).

In the second initiative, concern with issues of culture, language and gender led Makhubela to reflect on how these barriers may be overcome in information literacy education and how cultural and other differences among students may be incorporated into a positive approach to learning (2000a). In spite of significant technological difficulties at a “previously disadvantaged” university, she set about integrating all the learning skills captured in the motto: “thinking as a writer; thinking as a researcher; putting it all together” (2000a, p. 5). Her approach explicitly valued diversity and acknowledged prior learning in students’ contributions. As a result, students not only gained in confidence, but their grades improved significantly (p. 6). While this intervention may therefore not be a multiliteracies approach per se, it nevertheless may be regarded as a significant attempt at taking situated practice and prior learning into consideration, to explicitly beneficial effect.

CONCLUSION

An observable shift is discernible among librarians from being satisfied with the stand-alone, generic model for information literacy programs to the recognition that integration into subject curricula is a more effective approach to information literacy training. In order to reinforce and build upon this recognition, it is necessary to develop and enhance the sharing of best practices through more careful documentation and publication of successful interventions. Success should be measurable; this logically leads to a need for objective assessment and the recognition of benchmarks and standards to demonstrate improvement in performance.

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