Building Info-skills by Degrees: Embedding Information Literacy in University Study

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Introduction
Late last year teaching staff at Griffith University participated in a symposium entitled 'Spotlight on Generic Skills & Flexible Learning'. This event brought together academic staff as well as library staff, learning advisers and other support staff interested in teaching and learning issues. The discussion was based on the premise that the University has a responsibility to ensure that its courses emphasise broad educational values and 'produce highly sought after graduates with globally applicable skills for the international market'(1).

It was acknowledged that the University consistently scores very highly with graduates for its development of generic skills. However at the same time staff expressed concern at the challenge of developing more flexible, student-centred learning environments that have generic skills embedded across all programs (2). As a result there has been much debate in the University about which skills are important, how they will be acquired and how they could effectively be built into the curriculum.

One outcome of these discussions is the project described in this paper. What follows is an overview of the project and a discussion about the integration and development of information literacy as a generic attribute in the curriculum and some suggestions on ways forward.

The Griffith Graduate Project
In April 1999 a group of academic and support services staff approached the Deputy Vice Chancellor and Pro-Vice-Chancellor, Information Services with two proposals to progress the University's generic skills agenda. The first initiative involved an audit of generic skill development across the University. The intention was to take a snapshot of current practices and to identify examples of innovative approaches to embedding generic skills. The second proposal was for a pilot project with first year students in the School of Applied Psychology to implement a process that would help students develop their generic and professional skills and capabilities across a degree program. Both proposals received strong support but it is the second initiative, known as the Griffith Graduate Project, that is the focus of this paper.

The Griffith Graduate Project was conceived as a student-centred process which would facilitate the development of generic and professional skills over the life cycle of an undergraduate degree program. With funding from the University's Quality Enhancement Committee and the Division of Information Services we set about the development, implementation and evaluation of three student-centred strategies.

The first strategy involved a series of workshops with approximately 110 first year students in the School of Applied Psychology (Mt Gravatt). We
captured student attention by identifying the generic skills involved in first semester assessment tasks. As part of this awareness raising process, students were asked to complete a self-assessment task to help them identify their strengths and weaknesses. Students were asked to rate themselves across nine generic skills: self-management skills, interpersonal skills, problem solving and decision-making, analysis and critical evaluation, adaptability and learning skills, teamwork, oral communication, information skills and written communication. They were also asked to consider a self-managed process of goal setting. Attention was drawn to resources such as the Library, Learning Assistance Unit and Careers Service that could help them enhance their capabilities.

In the self-assessment task, students rated their generic skills across seven dimensions and for information literacy, most students rated their skills as better than average. See Table 1 for a summary of the results of the self-assessment task for the cohort on information skills. Despite being relatively confident about their information skills, 15 students set personal goals for improvement in this area. This probably reflects the importance placed on acquiring good information skills throughout the workshop series as well as the ready availability of training opportunities to improve skills in this area. Following the awareness raising process, approximately half the students in the cohort signed up for voluntary library research workshops on catalogue, database and internet searching. Interestingly, very few of these students availed themselves of the self-paced Library Research Tutorial that is readily accessible via the world-wide-web. This tutorial teaches introductory, generic, library research skills and is already embedded in many first year courses.

Table 1. Students Self-Assessment on Information Skills

<table>
<thead>
<tr>
<th>Information Skills Assessed</th>
<th>Average of Students Self-Assessment. Rating on Scale 1-5</th>
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<tbody>
<tr>
<td>I use a variety of strategies (eg reading lists, independent searching of library catalogues and databases) to find information for my university assignments.</td>
<td>3.7</td>
</tr>
<tr>
<td>I draw on and make effective use of the skills and knowledge of the people around me.</td>
<td>3.6</td>
</tr>
<tr>
<td>I feel confident working with data and numbers and can use this information to identify trends and patterns.</td>
<td>3.5</td>
</tr>
<tr>
<td>My computer skills include the ability to use a range of software applications (eg. Word processing) and the capacity to use file management practices (eg. saving and printing my work).</td>
<td>3.8</td>
</tr>
<tr>
<td>When analysing information I am able to evaluate what to use and what to discard.</td>
<td>3.7</td>
</tr>
<tr>
<td>I draw conclusions based on my</td>
<td>3.7</td>
</tr>
</tbody>
</table>
sources and am able to discuss and share these using specific examples.

In my university work, I am able to analyse an assignment topic to identify what information I need.

Number of students who responded = 109

The second strategy of the Griffith Graduate Project was the development of a web-based resource directory. At the time of writing, the directory is still under construction however the intention is that it will provide access to a range of flexible resources that will support students in their developmental goals.

The third student-centred strategy, which students will progressively develop over the life cycle of their degree program, is The Professional Portfolio. This is an electronic resource file that will enable students to organise and track their experiences and achievements and to critically reflect on their current level or stage of development. It is envisaged that this portfolio will become a useful tool in job seeking strategies such as resume writing, networking and job interviews. Some suggested headings in the portfolio include:

- My guiding values and principles
- My career direction and goals
- My job relevant experiences
- My competence as a member of a team
- My capability to solve unfamiliar problems
- My information seeking strategies
- My capacity to work independently/without supervision
- My ability and willingness to provide leadership
- My effectiveness as a learner
- My capacity to handle change (3)

**Embedding Information Literacy in the Student-Centred Learning Environment**

Information literacy education at Griffith University has had a high profile for several years with a variety of delivery models in place. The approach Griffith has adopted is comparable to university practices across the world (4). For example, the self-paced Library Research Tutorial has become a compulsory element in some first year subjects and this is supplemented by a range of discipline specific information skills sessions designed to meet student needs at strategic points in a subject or course. In addition, the Library offers a range of generic information skills training courses throughout the year that provide a combination of hands-on and demonstration sessions.

These models of delivery ensure that the majority of students receive basic information literacy skills training at the beginning of their studies with a smaller number receiving more advanced or discipline specific training during the course of their studies. However, because opportunities for students to progressively develop information skills across a degree program have generally been limited, skill development has been fragmented and a more holistic model for embedding these skills in the curriculum is needed.
Consequently, an important aspect of the Griffith Graduate Project has been to encourage commitment and to raise awareness amongst academic staff of the need to teach, practice and assess generic skills across the life cycle of degree programs in the School of Applied Psychology. One of the strategies adopted was to analyse the assessment tasks required of students in their first semester and to highlight the generic skills being called upon to complete those tasks. This analysis was carried out by the Project Officer in consultation with academic staff and through the process both students and academic staff were made more aware of generic skills being taught, practiced and/or assessed.

As a result of this analysis, one lecturer set first year students the task of carrying out a database search using PsychLit. Students performed the search with guidance from tutors and many students also approached library staff for individual assistance or voluntarily attended a workshop. This incident illustrates how information literacy can be taught, practiced and assessed as a generic skill within the curriculum and we need to build on these opportunities to work collaboratively with academic staff to ensure that information literacy is successfully embedded in the curriculum.

An ongoing challenge for the project will be to ensure that students and academics appreciate the need for progressive development of generic skills. Merriam, LaBaugh and Butterfield (5) have proposed comprehensive information literacy standards for students majoring in psychology. These standards can only be attained across the course of the degree program and students need to be made aware of the breadth and depth of skills they should aim to acquire. Students also need the means to chart and record their progress and this will be provided in the future by the third main strategy of the project, the Professional Portfolio.

It should be noted that while all professionals need information to carry out their jobs, different employment environments affect how professional practitioners access information. Students need to be prepared for the reality of where and how they are likely to find information in their future professional roles. In a study of the information needs of four professions, Hammond and Mitchell (6) identified that except for those in corporate settings, most professionals do not use libraries even though their need for information may be great. This study found that practicing psychologists typically do not have access to a library. They must therefore possess skills to access information sources independent of libraries. A future challenge for the project will be to provide transition strategies that will assist psychology students to develop alternative information finding skills to use when they enter the profession.

In summary, the Griffith Graduate project has attempted to develop a holistic and integrated approach towards the development of information skills as well as other generic skills. In the project, information skills are positioned with a range of generic skills that students should aim to develop and improve over the course of their degree program. The strategies we've described are aimed at encouraging students to maintain an ongoing process of skill development as they prepare for their future professional roles. It is argued that by focussing on the importance of acquiring these skills and demonstrating the links to future employment, students are more likely to appreciate information literacy as a valuable skill leading to success in study and
professional life. It is our hope that as a result, information literacy programs will no longer be viewed as a "boring but necessary evil".

**Conclusion and Future Directions**

An important aspect of this project has been the collaboration between librarians, learning advisers, academic staff, careers counsellors and academic staff developers. Instead of focusing on what makes us different we've been motivated by shared concerns about the quality of the learning environment, retention rates, graduate capabilities and graduate outcomes. We believe that the strategies we've developed have the potential to make a significant contribution to the learning environment. Success however is dependent upon the commitment and support of students, staff and employers who must perceive the process as relevant and as adding value. The long term aim is to have generic skill development integrated into all degree programs and to develop more effective, timely and coherent ways of providing a range of student support services. However in the short term our aim is to improve the tools that we've already developed and to consider ways of extending the project to include other discipline areas.

Further funding to continue the work of the project has recently been approved by the University's Quality Enhancement Committee. Phase two of the project will complete implementation of the three student-centred strategies. This will involve developing a web-based package that integrates the component tasks of student self-assessment (the student self-assessment tool), the accessing of learning resources (the Resource Directory) and the progressive self-evaluation of student progress towards goals (the Professional Portfolio). The student-centred strategy will be complemented by creating and delivering a coherent program of professional development that will enable teaching staff to become confident in integrating generic skills in the curriculum.

At Griffith University, the profile of information literacy as a fundamental generic skill has been enhanced through the Griffith Graduate Project. In this 'Information Age' information skills must increasingly be seen as vital to success in personal and professional life. A challenge now for librarians at Griffith is to build on this profile and to have information literacy recognised in the University's official list of our graduates' desirable attributes.

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3. QUALITY EXCELLENCE GRANT PROPOSAL. Pilot project to embed generic and professional skills in student-centred learning. Brisbane, Griffith University, 1999.

