



**Information Literacy Section (ILS) Transitions to College:
How Information Literacy Answers the Knowledge Society
Challenge**

**Enabling Library and Information Skills: Foundations for
Entering Students**

**Roman Tantiongco and Lorraine Evison Librarians,
University of New South Wales Library
Sydney, Australia**

Date of receipt : 09/06/2006

Meeting:	125	Information Literacy
Simultaneous Interpretation:	-	

*WORLD LIBRARY AND INFORMATION CONGRESS: 72ND IFLA GENERAL CONFERENCE AND
COUNCIL
20-24 August 2006, Seoul, Korea
<http://www.ifla.org/IV/ifla72/index.htm>*

Abstract:

In late 2004, the UNSW Academic Board mandated the completion of an online information literacy tutorial as part of an enabling skills strategy. A basic online tutorial named ELISE (Enabling Library and Information Skills for Everyone) was launched by UNSW Library and piloted in 2005. The successful completion of ELISE by all commencing students aims to provide a common starting point which, when combined with later programs, will assist students to work towards the UNSW graduate attribute of information literacy. ELISE is also one educative tool in the context of UNSW strategies to promote the ethical use of information in tertiary studies. This paper aims to document the collaborative development of ELISE as a pre-information literacy tutorial, discusses the tutorial and pedagogical dimensions of its delivery to some 10,000 entering students and examines student assessment outcomes. It will also present an analysis of qualitative data from student feedback, which inform improvements to the program and some of the impacts on the overall information literacy program within UNSW. A summary of findings by way of an evaluation of student surveys establishes the positive acceptance and use of the ELISE tutorial and indicates some future directions for this mandatory enrolment requirement.

Keywords: *enabling skills, pre-information literacy, pedagogy*

Introduction

University life is complex and demanding. This increased complexity highlights the challenge for the academic community to understand, support and enhance the first year student experience (Krause, 2003). New students need to quickly adapt to the changes, i.e. dealing with new schedules, new friends, new environments, and specifically new ways of seeking and using information. Many institutions have developed integrated approaches to support a positive first year experience. For example, (Jolley, Callaghan, & Emmitt, 2004) research reviews the 'Inflow' online program (<http://www.deakin.edu.au/studentlife/orientation/>) developed at Deakin University for new students to overcome challenges dealing with a new environment in the first six weeks of semester. The program seeks to nurture connectedness and engagement to courses and support learning.

A UNSW Academic Board discussion paper indicated that regardless of entry level academic qualifications, many new UNSW students experience, among other things: difficulties critically evaluating information from diverse sources; a high incidence of plagiarism and lack of understanding of ethical issues; and a poor knowledge of referencing. (Starfield, Trahn, & Scoufis, 2003)

The proliferation of information resources available to first year students is increasingly more unfiltered and unregulated, which raises questions about authenticity, validity, and reliability. Information literacy is an important life-long learning skill for evaluating, understanding and using information ethically and legally within a scholarly community. Information Literacy in the Australian context is defined as an understanding and set of competencies enabling learners to recognize an information need, locate and evaluate and use the needed information effectively. (Bundy, 2004) In 2000, the ANZIIL (Australian and New Zealand Institute for Information Literacy) established *information literacy standards* which are widely recognized and practiced within the Australian higher education sector. (Bundy, 2004). These standards are referred to again later in this paper.

Background/History

The UNSW Academic Board, in August 2004, recommended that all entering students complete a basic information literacy program, broadly contextualized to discipline, during their early weeks of enrolment. Further, it was recommended that the program be completed by Week 5 of first Semester to nurture the all-important engagement with the student's course and to support learning, although the preference was that requirements should be met as soon as possible after online enrolment. The tutorial would be a tool to support the broader academic skills development agenda and would also reinforce educative strategies to promote an understanding of plagiarism and correct attribution of ideas.

ELISE (Enabling Library and Information Skills for Everyone) was designed to provide a mandatory online tutorial to encourage a common baseline of information literacy for entering students. The definition of entering students encompasses both undergraduate and postgraduate coursework students. The ELISE tutorial provides a starting point which, combined with later programs, assists students to work towards the UNSW graduate attribute of information literacy. UNSW Library information literacy programs support the development of

all relevant UNSW graduate attributes particularly 5.1 Information Literacy - the skills to locate, evaluate and use relevant information.

ELISE originated from a vigorous debate at the Undergraduate Studies Committee of the UNSW Academic Board in early 2003. The debate centred on academic concerns about the lack of understanding by many new undergraduates of the contemporary world of scholarly information and how information is used in the tertiary context. Academic members argued that all entering students should have a minimum level of understanding in relation to the world of information *prior* to engaging with studies in their subject disciplines. Behind these specific academic concerns was a view that this knowledge and the related skills are so fundamental to broader academic skills that the University should go beyond the optional and introduce a mandatory strategy to particularly assist those lacking this background. Some broad practical assumptions were established during the committee debates which underpinned the Academic Board recommendations. These were that:

- The Enabling Skills Information Literacy program would be a non-credit bearing tutorial
- The program would require a small investment of student time and not impinge on regular required course attendance times
- The “Course management” aspects of delivery would be essentially handled by the Library and not add to administrative burdens within the Faculties
- The program would incorporate engagement by students with material on the UNSW Learning Centre website (the official UNSW site for information around plagiarism)

UNSW Library information literacy responsibilities are currently distributed across a structure of separate special (subject) libraries. A working group with membership across those special libraries was formed and is known as the Enabling Skills Group. The group spent some time debating and finalising the six core learning outcomes required by the enabling skills tutorial. Most of the discussion centred on adoption of the Australian and New Zealand Information Literacy standards (Bundy, 2004) as part of the outcomes. Finally, it was decided that the new tutorial was primarily an ‘enabling’ tutorial intended to segue into later, more discipline specific information literacy programs mapped to the ANZIIL standards.

There was vigorous debate about the requirements of post-graduate coursework students and whether what was being planned would meet their requirements. Agreement was reached that many entering postgraduates had the same sort of knowledge gaps as undergraduates and that an important part of the trial was to get information from postgraduates about the relevance of ELISE for them.

There was also considerable discussion on adapting existing online information literacy tutorials but the group eventually decided on developing a new tutorial based on the scope laid out by the new set of learning outcomes. The decision to build an entirely new product was a risky one, given the restricted timeframe. It soon became clear that a “doer” or doers would be needed to take responsibility

for the product development. The Enabling Skills Group then became the reference group for the paper's authors, who undertook the development work.

Collaborative Development

Collaboration theory in information literacy work is a growing field, given the increasing number of stakeholders/players that now tend to influence, if not drive the changes in information literacy programs in universities. Scales, Mathews & Johnson (2005) study emphasises that librarian-academic staff partnerships are commonplace and heavily documented. Further the "pressure to share the concept of "information literacy" is a relatively new one for librarians and because collaborative efforts are more formal and structured, a more formal and structured look at the topic of collaboration is necessary".(2005)

Along with pedagogy, collaboration has been identified as one of several characteristics that illustrate best practices in information literacy programs (Hunt & Birks, 2004). In this work, collaboration can occur among "disciplinary faculty, librarians and other program staff in an information literacy program." As reference librarians, both authors have seen the development, success and value of librarian-academic staff collaborative work on information literacy tutorials in our own library.

After examining the learning outcomes, it was decided that a level of collaboration with key UNSW units and stakeholders would be undertaken to help fast track the development of the Enabling Skills tutorial. The short development timeframe (November to January) precluded a fully considered implementation of aspects of the project for the first round and some good ideas will have to wait for further iterations to be implemented. The struggle between aligning learning outcomes and content in a wholly satisfactory way and providing an ideal balance between all elements of the content were difficult issues to completely resolve under the deadline constraints.

The following illustrates a brief account of the authors' collaborative efforts with library staff, program staff and university units.

Enabling Skills Group and Library Staff

From the start, the Enabling Skills Group acted as the reference group, guiding the authors on difficult issues and clarifying content scope for ELISE. The members of the group also acted as major contacts for other staff members with information literacy responsibilities. Weekly meetings and updates were held until the tutorial was finally released and running.

One of the key components in the collaboration with other library staff was the development of a question pool for ELISE's online quiz. A workshop on quiz item creation was held specifically to skill interested library staff in creating quiz items based on the enabling skills learning outcomes. Face to face sessions discussing quiz questions were held by the Enabling Skills Group and an online form was created to accommodate suggested items from staff unable to attend the sessions. This collaborative effort contributed a pool of quiz items for the 10 item randomized quiz, each appropriately aligned with one of the six enabling skills outcomes.

UNSW Learning Centre

Members of the Enabling Skills Group served as representatives of stakeholders of the Library. In addition to library staff, representatives from the UNSW Learning Centre were invited into the core group to ensure coverage of academic skills, especially those concerning issues around copyright compliance and avoiding plagiarism. The UNSW Learning Centre's website is a rich resource and provides online exercises, examples and tips for academic skills. The authors identified key pages in the website to serve as primary online learning resources for tutorial topics relating to academic writing and copyright. The Learning Centre was a key collaborator for quiz items and information on academic writing skills.

Educational Development and Technology Centre (EDTeC)

EDTeC provides educational technology support to UNSW academic and general staff. It also hosts the UNSW course management system WebCT. Given the very large numbers of entering students it was evident that the UNSW course management program, WebCT needed to be used to enrol and track students and to provide and record access to and use of the tutorial material.

What was significantly different was the automated selection and enrolment of all first year course work students to their corresponding Faculty versions of the enabling skills tutorial. Given that UNSW entering student enrolments average more than 9,000 students every year, this was a complex challenge for EDTeC. It entailed technical programming to manage student database records and enrolment systems to dynamically authenticate with the WebCT course management system. Collaboration with EDTeC is best described as a continuing partnership essential to the delivery and existence of the program itself. A major WebCT version upgrade during the first year added to the joint challenges.

OMNIUM Team at College of Fine Arts (COFA)

The OMNIUM team worked very hard on developing the graphic design and providing a tutorial website that was both professional and a little fun. After several meetings explaining the learning metaphors and online activities to be included in the tutorial, graphic design and development work was set into motion. The skillful professional work of the illustrator and the technical programming of the online template in PHP served well to uplift the look and feel of the 2005 tutorial. The prototype was presented to the Enabling Skills Group and approved with some minor revisions to the interface. All this was done in a very tight schedule, ensuring that the tutorial was ready for user testing in the first week of January, barely weeks prior to its release.

Promotion Pathways

Because ELISE is a mandatory non-credit online tutorial for commencing students and thus precedes formal academic programs a major challenge is to inform and engage students to follow the entry links and undertake the tutorial. This formidable task was the basis for collaborations with a range of UNSW administrative units from the enrolment period, through the beginning of session to the follow up period mid session. Promotional and marketing conduits promoting ELISE were notified to try to ensure that electronic and printed and other promotional materials were in place, not only for students but for academic and program staff as well.

The core pathways for entering students to gain information about and to access ELISE and for staff who seek information include three high traffic sites:

1. The official staff and student portals MyUNSW, especially the enrolment elements
2. The UNSW Library website
3. The UNSW course management system (WebCT homepage)

In addition to pre-university programs and the O-week (orientation week) program the library information skills programs provide structured opportunities to try to ensure students know about and complete the tutorial and quiz. Informal interactions with students, especially within the Library at desks were also targeted as opportunities to assist students to complete ELISE.

Canberra export

Another area of collaborative effort spanned 400 kilometers and embraced a different UNSW culture. One significant faculty of the University is located at the Australian Defence Force Academy (ADFA) in Canberra. ADFA took the tutorial product and initial quiz and subsequently adapted these and set up their own delivery systems in accordance with local requirements. ADFA “militarized” the tutorial to suit an institution which educates the leaders of the Australian army, navy and air force. In the process an interesting and unique variant of ELISE was created.

A candid quote from Bruffee signals the new challenge for librarians who do information literacy work, “*Collaboration in whatever form... is never unproblematical*” (Scales, Matthews, & Johnson, 2005).

Pedagogy and Strategies

In developing ELISE, a project timeline was drafted loosely following a five step process similar to an instructional design model. This model consisted of Analysis, Design, Development, Implementation and Evaluation spread over the three-month period.

Analysis

Amidst analyzing the outcomes and looking for models of presenting the tutorial, the authors were convinced that in spite of the very short time allocated for development, ELISE needed to be something more than a page-turner. They also thought that interaction should be fused into the tutorial to help repeat and reinforce whatever learning students will gain in the online experience. Most of all, the authors felt that the tutorial should be pitched at the level of the student in keeping with using Brookfield’s ‘four lenses for reflection’ (1995) on student learning as a guiding principle for its development. The biggest hurdle the authors had to contend with was the changing nature of entering students over the past decade (Krause, Hartley, James, & McInnis, 2005; McInnis, James, & Hartley, 2000).

First year undergraduate students are now so '*technoliterate*' in using Information and Communication Technologies (ICT's) and the corresponding market driven expectations of using ICT's enable them to instantly engage with the institution. (Krause, 2005) Following Krause's thinking, success, will depend on the level of commitment (financial) and support the institution gives to understanding the expectations, particularly of the Y- Generation as first year students. Reduced funding has made for increased competitiveness amongst Australian universities with many using a market driven approach to recruit first year students (Krause, 2005).

The authors conducted a brief environmental scan of what other Australian universities were doing in their online information literacy programs before proposing a model for the online tutorial. The authors found numerous examples of online information literacy programs in universities such as the University of Technology-Sydney, University of Wollongong, Macquarie University and University of Melbourne. One of the more impressive works was a tutorial in Melbourne, which presented a fictional first year student's experiences in a pretend blog (weblog). Following this example, the authors resolved to create a similar scenario that could present the content of the enabling skills tutorial in an engaging manner.

The learning outcomes were mapped to diary entries in the blog to ensure a pedagogical alignment of course content and activities with enabling skills outcomes. In the process of doing this, it was found to be easier to present the information to the Enabling Skills Group through a mock-up or pseudo blog.

Design and Development

After the initial analysis, it was time to start designing and testing a rapid prototype of the blog. While it was clear that the blog was the preferred method of presenting the first year student scenario, it was also important to understand blogging as a concept to create a blog real enough to be treated as an authentic experience. As it was not a real blog, the original intent was to present the tutorial as the "archive" entries of last year's first year student named MJ.

Reading more on blogging further convinced the authors of its appropriateness for the tutorial. Blood (2002) explains that the 'voice' of a weblog or blog is the 'unique' mix of interests, enthusiasms and prejudices of the blogger's personality that invariably contributes to a successful weblog. ... a blog is useful for information sharing or a resource about a topic and equally important is to know who your audience is. Bausch, Haughey and Hourihan (2002) found that the ubiquity of hypertext links to virtual library resources in an online experience will be well supported in a weblog.

Fleshing out the content of the first year student's blog would have entailed a strong feel for a first year student's daily routines and activities if not a creative imagination. Although some insight may be gathered from Krause and McInnis's works (Krause, Hartley, James, & McInnis, 2005; McInnis, James, & Hartley, 2000), the authors wanted to present an online experience which gave a "flavour" of UNSW. To overcome this hurdle, the authors conducted observations,

interviewed students and library staff and convened focus groups to help shape the text of the tutorial whilst keeping in line with the outcomes.

In addition to contextualising the key concepts and bedding the outcomes through the blog entries, there was a need to make the tutorial more engaging than just viewing links and reading through the online diary. One of the authors created several online interactions using StudyMate® and Crossword Compiler®. These interactions were inserted in key areas of the blog to help reinforce what was covered by the tutorial.

When all the blog entries were finally written, and the online interactions were in final form, all the files were sent for integration with the online template created by the Omnium team at COFA (College of Fine Arts). A test version of ELISE was then trialled with a range of students, to generally favourable comments. Some academic staff also accessed the trial version to give their comments.

Implementation

At the outset the components required for delivery of the program had to be clarified. Given the very large numbers of entering students it was evident that the UNSW course management program, WebCT must be used to enrol and track students and to provide and record access to and use of the materials. Eight parallel WebCT courses arranged by Faculty (e.g. From *ELISE 0001 ELISE for Arts* and Social Sciences to *ELISE 0008 ELISE for Science* etc) were set up.

The rationale for this was to attempt to provide:

- The basis for broad contextualisation to discipline, particularly in the future
- Some possibility of a sense of ownership and the ability to contemplate student follow-up by librarians within the special libraries
- Some basis for cross-disciplinary comparisons of use
- Limited risk management in terms of access, traffic and technical issues

Librarians in relevant areas became “chief designers” in WebCT terms for the courses. A templated entry page was set up to each course which provided access to the tutorial itself and access to the quiz. The quiz is the mechanism which should retain the required proof of engagement by students and, hopefully, their understanding of the materials. The completion requirement has been set as the attainment of an 80% level of correct quiz answers.

The enrolment of students within the faculty-based courses required some additional programming for both student systems computing and WebCT technical staff.

Assessment of Learning Outcomes

Quiz Design

A simple ten-item quiz was set up in each of the faculty versions of the enabling skills tutorial. The quiz comprised of ten items randomly generated from a question database set up in WebCT. The questions were based on the contributions of Library staff and staff at the Learning Centre. Pass mark was set at 80% or 8 out of 10 items correct, with unlimited number of attempts allowed on

the quiz. The reason for allowing multiple attempts was to encourage an educative approach that took advantage of the benefits of increasing assessed knowledge through the randomized quiz.

To ensure pedagogical alignment with enabling skills learning outcomes, the quiz items were grouped in the WebCT question database so that each outcome will be assigned at least one question in any randomized quiz set. Two quiz items were given to more complex concepts such as information resources, databases, referencing and plagiarism (Learning Outcomes 2, 4, 5 and 6).

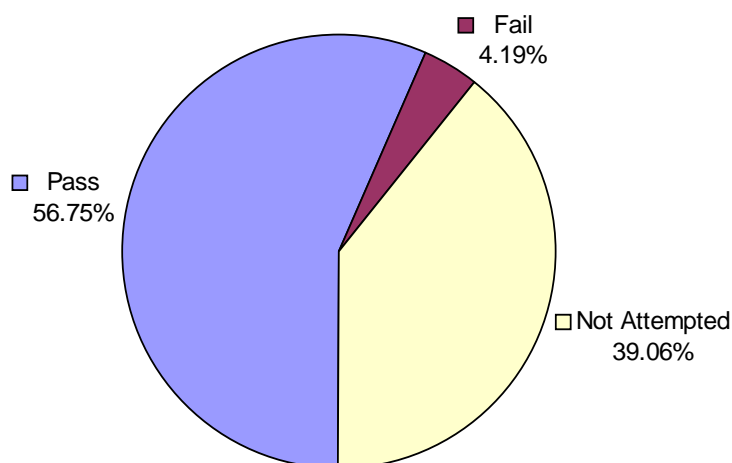
Table 1: Enabling Skills Learning Outcomes

Learning Outcome 1	1. List reasons why you might have to look for information at university, including: 1.1 Finding material on course and tutorial reading lists
Learning Outcome 2	2. Identify a variety of information sources and how these sources are used in your coursework, including: 2.1 Recognise the different characteristics of books, journals and the internet 2.2 Define what a database is and explain its purpose
Learning Outcome 3	3. State how items are organised in libraries. Your understanding of how items in the library are organised will equip you with the ability to: 3.1 Identify the basic ways of ordering - alphabetically and by subject 3.2 Explain correct arrangement within classification schemes, particularly Dewey Decimal Classification
Learning Outcome 4	4. Recognise that library collections are located in buildings and on the Internet. Having an understanding of this, you are expected to be able to: 4.1 List how you find items in the physical library and on the virtual library 4.2 State some differences between "free" internet sources and "Library funded" internet sources 4.3 Explain how search engines function (why <i>googling</i> might not be enough) 4.4 Explain why you need to authenticate to access some online resources
Learning Outcome 5	5. Describe when and how to cite a source and recognise the different parts of a citation. This includes being able to: 5.1 Recognise that there are different styles of citation used by different schools
Learning Outcome 6	6. List ways of using information ethically. Knowing how to use information appropriately, you are expected to be able to: 6.1 Define plagiarism 6.2 List ways to avoid plagiarism 6.3 Identify what materials you can copy and how much you can copy

Quiz Results

For the academic year 2005, total first year enrolment reached 9,746 entering course work students distributed across the eight faculty versions of ELISE. Of these, 5,531 (56.75%) passed the quiz, 408 (4.19%) students remained below the pass mark and 3,807 (39.06%) did not attempt the quiz.

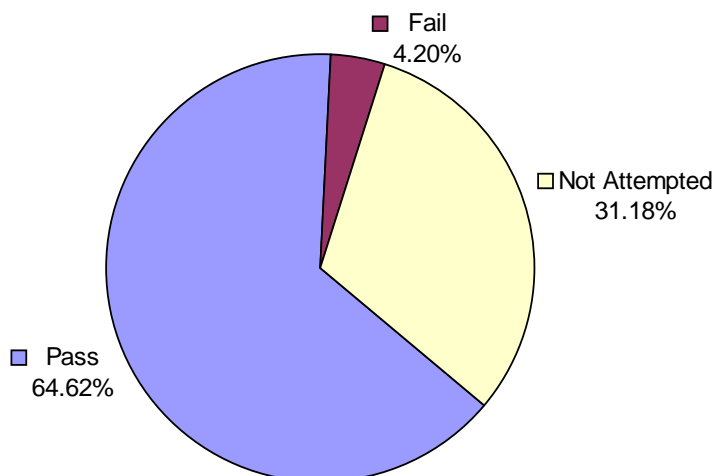
ELISE Student Quiz Completion Rates 2005



The academic year in UNSW has two sessions. Majority of the first year intake occurs in the first session, which commences in March each year. Taking a closer look at the first session figures will show a higher compliance rate due to a higher incidence of promotion activities and information skills classes carried out by the library, particularly early in the session.

In the first session the total first year student intake registered in all the ELISE tutorials was 7,834. Students who passed the quiz tallied to 5,062 (64.62%), while 329 (4.20%) failed the quiz and 2,443 (31.18%) did not attempt the quiz.

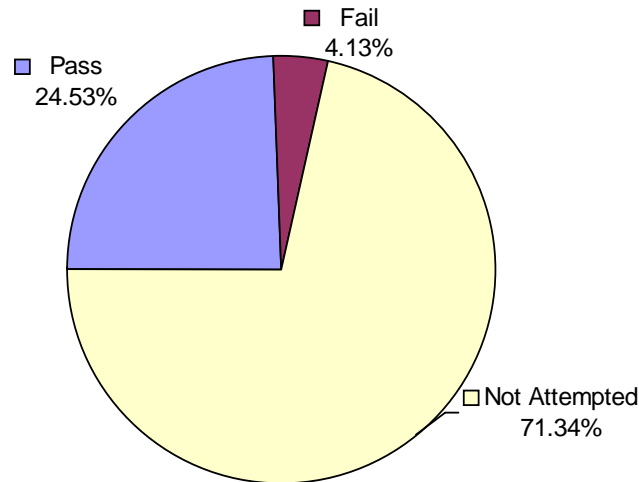
ELISE Student Quiz Completion Rates Session 1, 2005



The small session 2 intake is dominated by postgraduate coursework students, with very limited numbers of undergraduates entering at this time. As a consequence promotional activities and the number of information literacy classes are small in number for this small intake group. This had compliance implications for the enabling skills tutorial. In the second session the total entering student

intake registered in all the ELISE tutorials was 1,912. Students who passed the quiz tallied to 469 (24.53%), while 79 (4.13%) failed the quiz and 1,364 (71.34%) did not attempt the quiz.

ELISE Student Quiz Completion Rates Session 2, 2005



Another level in the summary of quiz results show the Pass, Fail and Not Attempted tallies for the different faculty versions of ELISE. The following cross tabulation also shows percentage completions for each faculty.

Table 2: ELISE Quiz Completions by Faculty, 2005

ELISE Faculty	Total Enrolled	Pass	Pass (%)	Fail	Fail (%)	Not Attempted	Not Attempted (%)
Arts, Social Sciences	1,953	1,062	54.38%	64	3.28%	827	42.35%
Built Environment	1,632	856	52.45%	66	4.04%	710	43.50%
College of Fine Arts	624	300	48.08%	13	2.08%	311	49.84%
Commerce, Economics, MBT	2,379	1,221	51.32%	156	6.56%	1,002	42.12%
Engineering	519	319	61.46%	24	4.62%	176	33.91%
Law	766	402	52.48%	17	2.22%	347	45.30%
Medicine	608	397	65.30%	11	1.81%	200	32.89%
Science	1,265	974	77.00%	57	4.51%	234	18.50%
TOTALS	9,746	5,531	56.75%	408	4.19%	3,807	39.06%

Issues Arising from Quiz Implementation

In 2005, towards the middle of the first session, students reported an error in the marking of a matching type quiz item. The cause of the error occurred in the transcription of the questions from Respondus to WebCT and was replicated across all eight faculty versions of ELISE. (Respondus is a quiz creation tool for WebCT) The problem was rectified as soon as it was reported, however several hundred students have already accessed the quiz. The first two weeks of this

session was also marked by a very slow WebCT server response rate, which led to some students having difficulties in completing the quiz and may have offered a significant compliance disincentive for others.

Student Feedback

From the total ELISE enrolment of 9,746 students, 3,052 online survey returns were compiled. The ten-item online survey was released to students who gained 80% in the quiz. In analyzing these returns a randomized stratified sample (proportionate) (Vaughan, 2001) of 20% of returns was drawn from the eight faculty versions of ELISE. The objective of drawing such a sample was to ensure proper student feedback representation from the varying number of returns in the faculties.

The Survey

The survey gathered students' technology access profile, to assist in planning for the use of online technologies in the next iteration of the tutorial. This survey item aimed to document student perceptions on WebCT server performance and reliability in a large scale of student enrolment. Worth noting were student responses relating to where the tutorial was accessed, satisfaction over connectivity and response rate.

A large number of students accessed ELISE from their home computers (69.3%), while about a third of the respondents indicated use of either UNSW library computers, campus facilities or a combination of computers to complete the tutorial. The highest proportion of students accessing from home came from those enrolled in Law, Commerce & Economics, and Medicine.

Table 3: Partial Tabulation of ELISE Online Survey --Technology Access

		Faculty								Total
		Arts SSce	Blt Env	Fine Arts	Comm	Eng'g	Law	Medicine	Science	
Where tutorial was mostly accessed										
	UNSW Library	20.5%	9.6%	5.0%	11.6%	20.0%	7.1%	10.3%	14.2%	13.2%
	UNSW campus (not UNSW Library)	7.7%	19.1%	10.0%	6.5%	8.0%	0.0%	7.7%	5.8%	8.5%
	Computer at home	65.8%	63.5%	70.0%	74.2%	60.0%	78.6%	74.4%	69.0%	69.3%
	Combination of different computers	6.0%	7.8%	15.0%	7.7%	12.0%	14.3%	7.7%	11.0%	9.0%
Connectivity and response rate was satisfactory										
	Strongly Agree	26.5%	27.8%	40.0%	24.7%	24.0%	37.2%	38.5%	27.7%	28.3%
	Agree		41.9%	46.1%	50.0%	59.7%	60.0%	44.2%	51.3%	43.2%
	Neutral		26.5%	20.9%	10.0%	13.6%	16.0%	16.3%	7.7%	25.8%
	Disagree		4.3%	4.3%	0.0%	0.6%	0.0%	2.3%	2.6%	3.2%
	Strongly Disagree		0.9%	0.9%	0.0%	1.3%	0.0%	0.0%	0.0%	0.6%

While there was a technical problem that slowed the response rate of the university WebCT CE server in the first two weeks of session, it was worth noting that overall satisfaction with connectivity and response rate for the tutorial did not suffer and was generally positive. Dissatisfaction with the response rate was

probably kept to a minimum by the fact that the blog itself was hosted on a library web server and not in the WebCT server.

As ELISE is a pre-information literacy tutorial, it was important to note the timing of the tutorial, particularly in relation to introducing the UNSW library and its services as part of their transition experience in the first few weeks as a student. Interestingly, in spite of ELISE being vigorously promoted and publicised in orientation week and well into the first six weeks of session, about half (50.5%) of the sampled student responses indicated use of the Library and its services prior to accessing the ELISE tutorial.

Table 4: Partial Tabulation of ELISE Online Survey – Library Use and Quiz

	Faculty								Total
	Arts SSce	Blt Env	Fine Arts	Comm	Eng'g	Law	Medicine	Science	
UNSW Library use before ELISE tutorial									
Yes	53.0%	47.8%	70.0%	54.8%	64.0%	39.5%	46.2%	45.8%	50.5%
No	47.0%	52.2%	30.0%	45.2%	36.0%	60.5%	53.8%	54.2%	49.5%
Problems encountered with attempting the quiz									
Yes	10.3%	10.4%	10.0%	8.4%	24.0%	4.7%	12.8%	9.0%	9.9%
No	89.7%	89.6%	90.0%	91.6%	76.0%	95.3%	87.2%	91.0%	90.1%

It was also important to find out student opinion and experiences with the randomised quiz. As a collaboratively developed assessment tool, the feedback can prove very helpful in informing the enhancement, creation and further development of quiz items pedagogically aligned with the learning outcomes. Although the sample strongly indicated a small number (9.9%) of students encountering problems in attempting the quiz, qualitative data in the comments and suggestions show students clamour for more engaging quiz items that incorporate actual search activities and use of more “practice-based” questions.

To ensure that the tutorial is covering the scope as prescribed by the learning outcomes, it was important to gauge student opinion on the amount of material in ELISE. Only a total of 4.8% of the sample opined that the amount of content in the tutorial was insufficient.

Table 5: Partial Tabulation of ELISE Online Survey – Tutorial Content and Design

	Faculty								Total
	Arts SSce	Blt Env	Fine Arts	Comm	Eng'g	Law	Medicine	Science	
Amount of content was sufficient									
Strongly Agree	15.4%	13.0%	20.0%	11.0%	12.0%	9.3%	12.8%	11.0%	12.4%
Agree	54.7%	50.4%	70.0%	59.4%	52.0%	51.2%	66.7%	48.7%	54.5%
Neutral	25.6%	28.7%	10.0%	26.5%	32.0%	30.2%	15.4%	36.4%	28.3%
Disagree	4.3%	5.2%	0.0%	2.6%	4.0%	7.0%	5.1%	3.2%	3.9%
Strongly Disagree	0.0%	2.6%	0.0%	0.6%	0.0%	2.3%	0.0%	0.6%	0.9%
Tutorial was well structured and presented									
Strongly Agree	19.7%	20.0%	30.0%	12.9%	24.0%	16.3%	20.5%	22.1%	19.0%
Agree	52.1%	50.4%	55.0%	67.1%	48.0%	53.5%	64.1%	47.4%	54.9%
Neutral	26.5%	23.5%	15.0%	18.7%	20.0%	25.6%	15.4%	29.2%	23.5%
Disagree	1.7%	4.3%	0.0%	0.6%	8.0%	0.0%	0.0%	1.3%	1.8%
Strongly Disagree	0.0%	1.7%	0.0%	0.6%	0.0%	4.7%	0.0%	0.0%	0.7%

On the design side of the tutorial, we also sought students' overall perspective in rating the tutorial's architecture and general look and feel. This was significant especially as the tutorial was the first iteration using a pretend blog as a means of presenting the ELISE tutorial. Sample responses show an overall acceptance of the structure and presentation, with only 2.5% stating a degree of disagreeing with the tutorial structure and presentation. Some comments on the presentation and design of the tutorial thought the blog was pitched at "younger" undergraduate students and less suited to postgraduate and mature age students.

Most Significant Topic Learned

In analysing the qualitative data in this item, a coding process was undertaken to cluster the key topics into separate categories. Students were asked what was the most significant topic they learned from the enabling skills tutorial. For this survey item, some 29 main topics were identified from the sample. In identifying the main topics, the original wording of students responses were kept intact to show the language students have started to assimilate from the tutorial.

Topics with the most mentions were: Sirius (Sirius is the UNSW Library portal for accessing electronic resources), Referencing, Library Resources, LRD (Library Resources Database is the UNSW Library online catalog), Library Services, Databases, How to Use the Library, Journals and Journal Articles, How to find information, Call Numbers & Prefixes, Searching, Finding Books, Plagiarism, Research Skills, Variety/Selection of Information Resources and MyCourse (UNSW Reserve collection)

Table 6: ELISE Online Survey Most Significant Topic Learned

Most Significant Topic Learned	Faculty								Total
	Arts SScE	Blt Env	Fine Arts	Com	Eng'g	Law	Medicine	Science	
SIRIUS	10	9	2	17	3	7	3	10	61
Referencing	14	6	5	12	2	2	5	15	61
Library resources	16	4	0	13	2	4	5	9	53
Library Resources Database, Catalog	8	9	2	10	2	0	2	8	41
Library Services, General Library Info	2	6	0	9	1	5	1	10	34
Databases	5	5	1	7	3	0	2	9	32
Library Use, how to use the Library	5	5	2	7	0	1	1	8	29
Journals, Journal articles	4	4	4	4	2	2	2	6	28
How and/or where to find information	3	5	1	6	1	0	2	8	26
Call numbers, prefixes	4	6	1	5	1	3	0	2	22
Searching	4	1	0	7	0	2	1	6	21
Access to library information resources	4	6	0	4	0	0	0	5	19
Finding Books	2	2	0	4	0	0	1	7	16
Plagiarism	2	1	0	4	1	0	1	4	13
Library, research skills	1	3	0	2	0	0	2	4	12
Variety/selection of information sources	1	3	1	1	1	1	0	2	10
MyCourse	0	3	0	2	0	2	1	1	9
Reading Lists, citations	2	2	0	2	0	1	0	2	9
Library Facilities	4	3	0	0	0	0	0	2	9
Everything	1	3	0	4	0	0	1	0	9
Finding assignment information	2	2	0	2	0	0	0	2	8
Library skills classes	0	0	0	0	0	0	3	3	6
Special Libraries	2	0	0	0	1	0	0	3	6
Lecture notes and course information	2	0	0	1	1	0	0	0	4
WebCT	1	2	0	0	0	0	0	1	4
Copyright	0	0	0	2	0	0	1	0	3
No, none, NIL, Nothing	5	4	0	5	1	0	1	6	22
Others	7	10	0	11	2	10	2	11	53
Total	111	104	19	141	24	40	37	144	620

Comments and Suggestions for Development

Students were also given the opportunity to give their comments and suggestions through an open-ended survey item. From this item, five key areas were identified as main themes of student responses: Positive comments, Quiz comments and problems, Suggestions for improvement, Critical and negative, and Technical and WebCT issues.

Students showed appreciation for the tutorial and gave glowing remarks. These comments ranged from thanks and praise for the design of the tutorial for being presented as a blog, to encouraging remarks appreciating the library's overall effort in creating the tutorial.

"..the blog format was a very creative way to present typically drab information... the info was informative and beneficial..."

“MJ’s blog is a colourful and creative way to present linear information on library services, Well done!”

“MJ’s experience is something I can relate to! Very life-like!”

The quiz marking error formed most of the quiz comments and problems category, along with some quiz implementation issues associated with the WebCT quiz interface. This was compounded by the fact that the WebCT server issue in the first two weeks may have had its effect on students’ opinion, particularly those who attempted the quiz at that time. Some of the responses indicated WebCT quiz windows “freezing, not responding” or “not saving my answer”. Still others claimed the quiz interface itself was difficult to use, saying “saving answers should be automatic”.

There were general comments on improving the tutorial, particularly in making the design more “interesting”, “engaging and fun-spirited”. Another suggested the use of online videos to show examples on searching and locating books/items in the library (both in the content and in the quiz). Other comments showed a request for more examples on call numbers and prefixes. Most importantly, while realising the value of the tutorial content, postgraduate students requested a postgraduate version of the tutorial. A similar comment was also gathered from some mature age students who wanted a “more sober” ELISE tutorial.

This was one factor in the 2006 development of a postgraduate version of ELISE in collaboration with the Faculty of Commerce, which assumes a higher level of knowledge and is presented in a more sober visual manner more acceptable to the mature student.

Table 7: ELISE Online Survey – Comments and Suggestions

Comments suggestions Quiz comments	Faculty									Total
	Arts Ssce	Blt Env	Fine Arts	Com	Eng'g	Law	Medicine	Science		
Positive comments, praises and thanks	21	12	5	22	7	6	7	10	90	
Quiz comments and problems	8	8	1	10	4	1	4	11	47	
Suggestions for improvement, development	5	5	1	12	3	5	3	7	41	
Critical and negative comments	4	10	0	3	1	3	3	9	33	
Technical and WebCT issues	4	2	2	5	1	1	2	4	21	
Others (unclassifiable)	4	1	0	2	0	1	0	3	11	
No comment	59	58	9	82	6	22	16	87	339	
Total	105	96	18	136	22	39	35	131	582	

There were critical remarks about why the tutorial was compulsory. Some students also felt that it was a “waste of time” and others also disliked the “blog approach” because it was “too long winded” and “childish”.

Of the technical issues identified by the students in the sample, the most mentioned item was that of “access problems relating to pop-up blockers and Spyware settings” which were preventing students from accessing parts of the tutorial. Most of the components of the ELISE tutorial i.e. the blog, the glossary, the games, the quiz and the survey open in new browser windows. During this

time Google, and several anti-virus software companies launched pop-up blocking as a key feature of their major products.

There was also mention of multiple enrolments occurring, wherein students had more than one ELISE tutorial in WebCT. This course enrolment issue was identified and marked for elimination in the 2006 WebCT upgrade to VISTA 2005. Enrolments could not be rectified in the mid-session to re-validate and de-duplicate student records without affecting the quiz marks of those who had already attempted it.

Conclusion

The institutional endorsement of ELISE as a mandatory pre-information literacy tutorial has played a key role in its creation and future sustainability. The organisational support to integrate the ELISE tutorial at course level has encouraged some academics to take ownership of information literacy. AUQA (Australian University Quality Agency) has seen fit to examine and make a commendation in the report of the 2005 UNSW AUQA Audit (2006).

Analysis of qualitative data suggests that the UNSW Library in collaboration with the Learning Centre and other staff have successfully developed a broadly based program that provides pre-information literacy instruction. The ELISE tutorial provides UNSW entering students with enabling skills, which can be combined with later information literacy programs, and assists students to comply with the institutional requirement for the UNSW Graduate Attribute of Information Literacy.

What we learned

In spite of the short time frame to establish knowledge of the requirement to complete ELISE and the absence of formal mechanisms of compliance to make ELISE a compulsory component of the first year of study there was a relatively high level of completion by students. The graphic/web design was essentially of excellent caliber and completed within a short timeframe. In addition EDTeC WebCT technical support was very useful and timely. The professional development for the authors was gained through the enrichment of new skills; new knowledge and the experience of working with the UNSW units e.g., OMNIUM-COFA, EDTeC and the Learning Centre. Specifically, the opportunity to work and interact with professional educational and web/graphic designers within the Enabling Skills Group enhanced an appreciation of the team member(s) expertise and experience. Of course, the feeling of self-actualization after completion of the project was gratifying.

What didn't work so well

The auto-enrolment occasionally failed to detect the proper faculty of first year students resulting in confusion and frustration for the students. As well, there was slow WebCT access in the first four weeks of term. Questions were often asked by academics about penalties for non-completion. This is a component in the program still being put in place by the University. The very short development time for quiz items and online learning activities that could have been thoroughly tested, discussed and refined was an obstacle.

What we're doing now

ELISE is now running in its second year. The largest institutional step in 2006 towards enforcing the mandatory requirement was the insertion of an online acknowledgement by students, as part of their online enrolment that they understand the requirement to complete the tutorial. Without this acknowledgment enrolments cannot be completed. There remains the difficult issue of penalties to consider.

ELISE has preserved the eight-Faculty approach and has migrated to WebCT Vista. A postgraduate version was developed by two members of the Enabling Skills Group as a collaborative exercise with an academic educational development centre and is housed within each of the ELISE modules to provide an alternative for the more advanced and the more serious minded. The defence forces version as mentioned previously has one iteration. The quizzes contain more items on plagiarism – a big issue at UNSW. The survey has been modified and introduces a question on student confidence in relation to using information in the tertiary context.

Recommendations

Having examined student feedback on their experience in undertaking the ELISE tutorial and considering the collaborative environment that has evolved to make it a regular feature of first year transition at UNSW, it is recommended that further customization of the ELISE tutorial content be undertaken by specialist librarians to introduce more subject specific library skills (i.e. more quiz items on Faculty/discipline). Along with content development there is the opportunity to exploit new technologies to provide a media-rich online experience. Some libraries are already using podcasting, video on demand and instant messaging to enhance user education programs and services. There are many possibilities for further development.

There are also key considerations for librarians who want to take on the role of developing mandatory pre-information literacy tutorials. From our experiences and observations, these definitely revolve around awareness of educational technologies and their pedagogical impact, the ability to look through the “student’s lenses”, awareness of discipline specific events for first year students, and nurtured rapport with other program units that would ensure compliance mechanisms for the mandatory implementation to be pursued. That said, collaboration with various stakeholders has played an integral role in the development of the ELISE pre-information literacy tutorial for students entering UNSW.

References

- AUQA. (2006). *Australian Universities Quality Agency: Report of an Audit of the University of New South Wales* (Audit Report).
- Bausch, P., Haughey, M., & Hourihan, M. (2002). *We Blog: Publishing Online with Weblog*. Indianapolis, Indiana: Wiley Publishing.
- Blood, R. (2002). *The Weblog Handbook: Practical Advice on Creating and Maintaining your Blog*. Cambridge USA: Perseus Publishing.
- Brookfield, S. (1995). Becoming critically reflective: a process of learning and change. In *Becoming a Critically Reflective Teacher* (pp. pp 28-48). San Francisco: Jossey Bass.
- Bundy, A. e. (2004). Australian and New Zealand Information Literacy Framework: principles, standards and practice. 2nd ed. Retrieved 24 April 2006, 2006, from <http://www.anziil.org/resources/Info%20lit%202nd%20edition.pdf>
- Hunt, F., & Birks, J. (2004). Best Practices in Information Literacy. *Portal: Libraries and the Academy* 4(1), 27-39.
- Jolley, D., Callaghan, V., & Emmitt, M. (2004, 16-16 July 2004). *First Year at Deakin: A University-wide Effort*. Paper presented at the 8th Pacific Rim First Year in Higher Education Conference Melbourne.
- Krause, K.-L. (2003, July 9-11, 2003). *Which Way From Here? Passion, Policy and Practice in First Year Higher Education*. Paper presented at the 7th Pacific Rim, First Year in Higher Education Conference Enhancing the Transition to Higher Education: Strategies and Policies that Work, Brisbane.
- Krause, K.-L. (2005). *The changing student experience: who's driving it and where is it going? Keynote Paper*. Paper presented at the Student Experience Conference: Good Practice in Practice, Charles Sturt University, Wagga Wagga, New South Wales.
- Krause, K.-L., Hartley, R., James, R., & McInnis, C. (2005). *The First Year Experience in Australian Universities: Findings from a Decade of National Studies*. Retrieved. from.
- McInnis, C., James, R., & Hartley, R. (2000). *Trends in the first year experience: in Australian universities* Centre for the Study of Higher Education, University of Melbourne.
- Scales, J., Matthews, G., & Johnson, C. M. (2005). Compliance, Cooperation, Collaboration and Information Literacy. *The Journal of Academic Librarianship*, 31(3), 229-235.

Starfield, S., Trahn, I., & Scoufis, M. (2003). **Enabling Skills at UNSW: A Discussion Paper.**

Vaughan, L. (2001). ***Statistical methods for the information professional: A practical, painless approach to understanding, using and interpreting statistics.*** New Jersey: Information Today, Inc.

ACKNOWLEDGEMENTS

The authors wish to particularly acknowledge the work and contribution of:

Isabella Trahn, Quality and Planning Librarian, UNSW Library

The UNSW Library Enabling Skills Group

Jill Denholm, Biomedical Librarian and Biomedical Library Staff

UNSW Learning Centre

Educational Development and Technology (EDTeC)

OMNIUM Team at UNSW College of Fine Arts (COFA)

AUTHORS CONTACT INFORMATION

Roman Tantiongco and Lorraine Evison are reference librarians at the University of New South Wales Library. They can be reached at the following email addresses: romant@unsw.edu.au and l.evison@unsw.edu.au