Information Literacy Education for University Undergraduates: A case study in a Library initiative in University College, Cork, Ireland

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Introduction

In Ireland, there is an identified need to address the inconsistency that exists in Undergraduate Education at entry to university level. This article aims to provide a roadmap of generic skills teaching which in turn will form the foundation of a Teaching for Understanding framework, as developed in "Ten Years at Project Zero: A Report on 1993 – 2002", Harvard Graduate Studies School of Education, in the 1990s (Gardner, Perkins, Quense, Seidel & Tishman, 2003). Thus, at University College Cork (UCC), a structured, comprehensive and collaborative approach was used to develop a programme which would initially begin within the Library, but would also form the nucleus of, and have the potential to become, an all-inclusive Information and Communications Technology (ICT) type, university-wide, credit bearing module. To contextualise our model we will firstly look at the prevailing background to our project and review some of the existing literature and international standards on Information Literacy (IL).

Background

For the past four years, UCC Library has delivered a formal credit-bearing module for Post-graduates, designed for PhD and Research Masters' students but suitable for all Postgraduates in the University. This module, entitled Graduate Information Skills, is coded PG 6009 and is available on the university's Book of Modules.

During that time, First Year Students Undergraduate were given physical orientation (Introductory Library Tours) of the Library along with rudimentary instructions on how to use the catalogue, on a 'drop-in' basis. In UCC, academic Schools and Departments often teach their own "Information Literacy" classes, for example, Referencing and Citation, particularly to 3rd and 4th year students. Again, these are not formalised with the result that students often miss these classes or their department does not offer them. College Liaison/Subject Librarians provide targeted, subject specific classes on-demand but more usually at the request of academics, particularly targeting groups from second year onwards.

However, there was no Generic Undergraduate Module that captured everything the incoming 1st Year Student needs to know to survive beyond first year. The original Library Tours Committee also recommended a different format to what had become unwieldy and ineffective i.e. trying to catch first years during the extremely busy and full calendar of campus-wide events, organised as part of UCC Orientation and Registration programme. So this became the central tenet of our adopted strategy and aligns with the university's growing need of support in the areas of student experience and student retention.

Literature Review

It soon became apparent that although there are a number of peer-reviewed articles extolling the benefits of Information Literacy for Undergraduates - better employability, social mobility and social inclusion - there is no best-practice template for the structure of the process.

In 2007, the European Union (EU) brought out a Communication paper in which they acknowledged that although "(...) the contribution of ICT to the European economy is fundamental for the development of productivity and knowledge-intensive products and services (...)" the approach is quite fragmented (European Commission, 7.9.2007).

Historically, the United States (US) was always viewed as a giant in the field of Information Technology. In 1991 the US spending on IT surpassed that on Production Technology ($112 billion against $107 billion). It is then somewhat surprising to see a Policy Guide - Partnership for 21st Century Skills - emerging in 2008 on 21st century skills (Partnership for 21st Century Skills, 2008): The authors acknowledged that the present economy requires a different set of skills than those of 30 years ago, putting more emphasis on lateral, expert thinking and complex communication skills. In building the framework for 21st century learning, the authors identified a set of Core Subjects that should be taught along with the following Information, Media and Technology Skills:

- Information Literacy
- Media literacy
- ICT (information and Communications Technology) Literacy

In Ireland, the Committee of National and University Librarians (CONUL) Advisory Committee on Information Literacy (ACIL) produced a report on integrating Information Literacy into the Curriculum in 2010. Dr. Philip Cohen, CONUL Chair, acknowledged in his preface that "(...) training in information literacies should be provided in all second-level and higher education institutions so that students are able to identify, search, locate, retrieve and above all critically evaluate information from a range of appropriate sources." (HEA, 2009, p. 11). CONUL (2010) espouses that

(…) integrating information literacy into the curriculum is about building skills for independent and lifelong learning in a systematic way throughout a student's career. Graduates should be able to find, evaluate, process, present and communicate information in any work or life situation." It is also true that students learn better when IL is taught as part of the specific subject "rather than bolting on a 'library element' to a particular module or course and assuming students will 'acquire' the necessary skills. (p. 6).

Dr Jane Secker & Dr Emma Coonan (2011) of the Arcadia Project, Cambridge University Library, in July 2011 completed a project on Information Literacy "A New Curriculum for Information Literacy - transitional▪ transferable ▪ transformational. "

> The key finding during this project is that the way in which information literacy is taught, structured and implemented is as important as the topics that are covered in any new curriculum. In addition, information literacy needs to be embedded into the academic curriculum as far as possible; it also needs to be ongoing throughout a student's academic career and adapted according to the specific requirements of the discipline. The curriculum needs to include opportunities for students to work collaboratively and to reflect on their learning. It should be based on real needs, ideally following an audit. Meaningful assessment forms an important part of this curriculum, while recognising that information literacy can be difficult to assess summatively. Therefore approaches such as peer assessment are key to this process. (Secker & Coonan, 2011, p. 6).

As for the Standards of Information Literacy, most educational institutions have adopted either the Association of College and Research Libraries (ACRL) guidelines or the Society of College, National and University Librarians (SCONUL) guidelines, or both. Let us look at these guidelines in more detail now.

The American Library Association (ALA), in their ACRL Guidelines for University Library Services to Undergraduate Students (ACRL, 2012), set out the guidelines for Library Instruction as follows:

> Library instruction programs should improve the students' ability to use library collections and services effectively, and should include instruction in the use of the full range of information and knowledge resources. Instruction may be offered as part of coursework in an academic subject or interdisciplinary program, in a separate course on research skills and information literacy, in workshops, in network-delivered instruction, in term-paper clinics, and through point-of-use aids in the library.

ACRL (2000), in their Information Literacy Competency Standards for Higher Education, defined the competency level of an information literate student/person as:

An information literate individual is able to:

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- 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, and access and use information ethically and legally.

ACRL also suggests

> (…) that academic libraries work together with other members of their institutional communities to participate in, support, and achieve the educational mission of their

institutions by teaching the core competencies of information literacy. The systematic delivery of instructional programs and services should be planned in concert with overall strategic library planning, including the library's budgeting process. Such planning may also involve strategising with other campus units to deliver collaboratively designed programming. (ACRL, 2000, pp. 2-3).

SCONUL (2011), in their Seven Pillars of Information Literacy, Core Model for Higher Education, defines Information Literacy as an umbrella term, which encompasses concepts such as digital, visual and media literacies, academic literacy, information handling, information skills, data curation and data management.

The core model describes a set of generic skills and understandings;

for different user communities a "lens" can be developed which highlights different attributes, adds in more complex or simpler statements and uses language recognised by the specific community which it represents. In this way, it is hoped the model can be used flexibly by individuals and teachers who can adapt it as appropriate to personal circumstances. (p. 3)

However, as Jarson (2010) suggests:

(…) to achieve a sustained and significant impact, information literacy cannot be addressed only by librarians or only in isolated experiences. Instead, we need a holistic approach through which invested campus partners come together and advocate for the importance of information literacy and accept shared responsibility in it. (p. 534).

UCC Template: Methodology

In 2011, the Undergraduate Library Tour was re-conceptualised and a new approach to 1st Year Undergraduate Education was developed. As already stated, the old model concentrated on providing physical orientation alongside some basic training, given at Entry Point to UCC, during the week of 1st year undergraduate registration. Under this re-conceptualised model, a Programme of Generic Information Literacy Skills Workshops was developed to be provided at Point-of-Need, i.e. at a specific time that would best benefit the incoming new students. 8 Library Workshops (LW) were developed: 4 Online and 4 Face-to-face delivered over 2 weeks, starting on the 2nd week of Semester 1, of the new academic year in Oct 2011. In this Pilot Programme, 2 academic departments collaborated closely with the Library. Both assessed and applied credits for attendance at the LWs. Feedback was gathered from Students, Academic Staff (who scheduled their students) and Library Staff Presenters/Tutors; all forms were collated and reviewed to inform the 2012 programme.

The 2012 programme was project-managed from the very beginning. A cross-functional, core group was formed which consists of 3 professional librarians, from different areas of the Library and the Head of Information Services as Chair. The title chosen was Library UnderGraduate Steering Committee (LUG) to manage the Library UnderGraduate Programme with the ultimate aim of developing a credit-bearing Library Undergraduate Module. Senior Management were asked to nominate a suitable and interested person. Once set up, the LUG Steering Committee was given the task of creating teams of library staff for: Content Creation; Presenting/Tutoring/Co-ordinating; Brochure/Marketing and Logistics; and Administration. They were also responsible for Academic Liaison, which was prioritised at every possible opportunity. 8 Library Workshops (LWs) were then developed.

4 LWs, outlining physical facilities, were made available online:

- Getting Started in the Boole Library
- Photocopying & Printing
- Finding Books & Journals in UCC Library

- Reading & Study Facilities in the Boole Library

4 LWs, introducing Critical Thinking Skills, were provided as related Face-to-Face (F2F) units:

- Discover UCC Library Online
- Explore the Web for your Assignment
- Get Ahead: Library Electronic Resources for your Assignment
- Give Credit / Get Credit: Referencing and Plagiarism

The LUG Steering Committee contacted all academic departments, 12 of whom responded and closely collaborated with the Library; 1 made it a pass/fail module; the Library devised a set of Multiple Choice Questions (MCQs) for each workshop.

The Library set up a Schedule with which the Academic Departments aligned. Full attendance was achieved where departments made it obligatory for their students to attend.

Programme Details: Logistics, Statistics & Evaluation
The LUG Steering Committee set up teams to look after different aspects of the Project.

The Logistics Team contacted all the Schools/ Faculties and Departments inviting / cajoling them to work with/collaborate with the Library. Two different points of contact were identified – 1st year Co-ordinators, where available and Department/School/Faculty Heads. Where a dedicated co-ordinator was not found, they contacted the Department/School/Faculty Managers.

It was extremely time-consuming as the team had to individually e-mail and/or phone the relevant people, which involved a lot of repetition when explaining /introducing the concept to each new contact. The Logistics Team contacted all academic departments to determine the 1st Year Co-ordinators.

See Sample e-Mail:

Staff in UCC Library will be delivering a Series of Library Information Literacy Skills Workshop to First Year Undergraduate Students, during the month of October 2012, as part of the UCC Orientation Programme.

The aim of these workshops is to familiarise students with the facilities and resources which the Library provides, in support of the University's Teaching and Learning Programmes.

Last year's pilot involved students from a number of disciplines attending these workshops. The feedback received from participating departments/schools was extremely positive, particularly when schools allocated tutorial times to the workshops.

This year we would, therefore, like to invite your department/school to participate in our programme, thereby enhancing your students' performance and leading to improved student retention.

This year's schedule is as follows:

Week 1:	1st – 5th October:	Discover UCC Library Online
Week 2:	8th – 12th October:	Explore the Web for Your Assignment
Week 3:	15th – 19th October:	Get Ahead: E-Resources for Your Assignment
Week 4:	22nd – 26th October:	Give Credit, Get Credit: Referencing & Plagiarism

The workshops will be delivered on the hour between 09.00 and 16.00, Monday to Friday.

If you would like the First Year students in your department/school to attend these workshops, please forward to the First Year Coordinator, or other nominated contact person, who should reply to LibraryWorkShops@ucc.ie with the preferred dates, times and with an approximate number of students.

Please note that while every effort will be made to accommodate all who wish to avail of these workshops, places are limited, and will be filled on a *first come, first served* basis.

At the end of this process the committee had 14 interested departments with two - Law & Geography - actively supporting the Project.
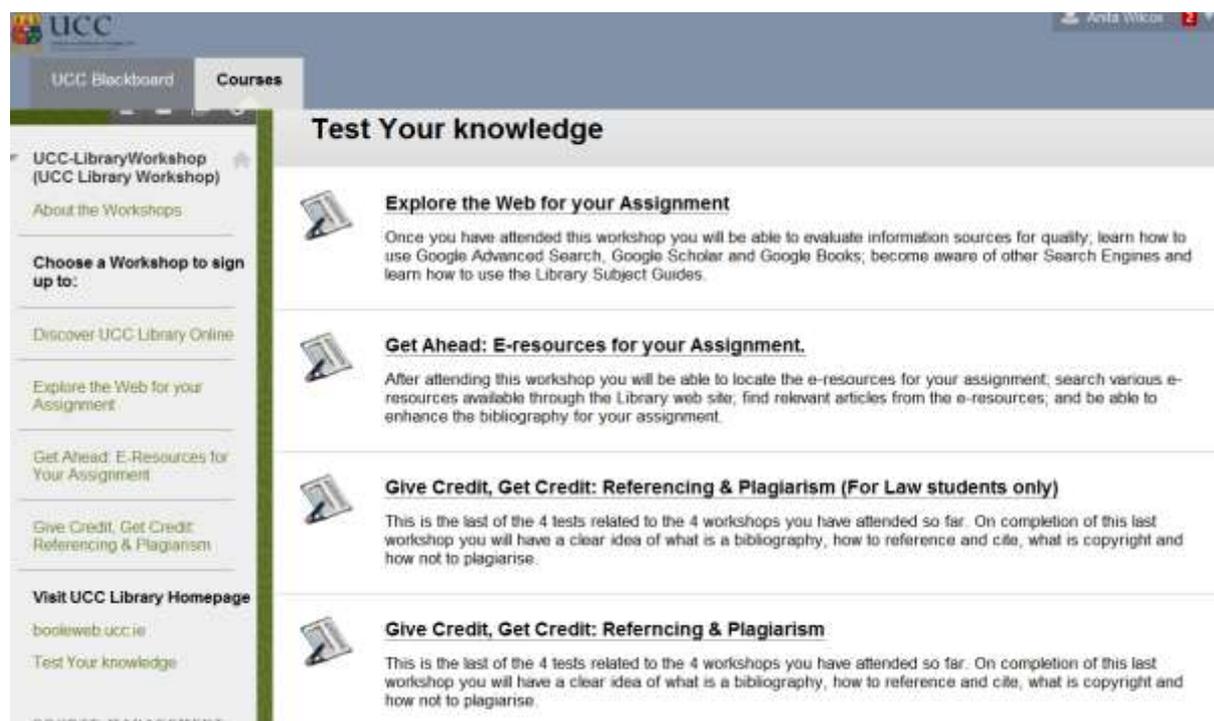
Unfortunately, like all the best laid plans, the university administration decided to put the date of commencement of the new semester back by one week, thereby creating major problems with our timetabled schedule; we had prepared according to the original dates supplied to us by UCC Admissions. Geography needed the first two weeks of semester to meet with their students so they were then not available for the first two workshops; hence all the empty slots!

On the plus side, we were able to announce our presence through Blackboard, our Virtual Learning Environment (VLE), for the first time. The team decided to experiment with registering the students for the workshop through Blackboard! This was very new. The traditional method of signing-in at the point of attending was quite time consuming and resulted in 'robbing' time from our presentation slots. However, this registration through Blackboard did not produce the results we had anticipated i.e. saving time and effort and improving attendance; rather, students who registered didn't necessarily turn up and we ended up cancelling quite a few slots due to poor attendance!

The Library was also asked by the Law department to set an assessment for their students as they made the attendance compulsory to integrate with their "Legal Writing Skills" module; Blackboard did prove to be a useful tool for that. Library staff presenters created 4 MCQs for all students, with unit 4 having two versions: one specifically for Law students.
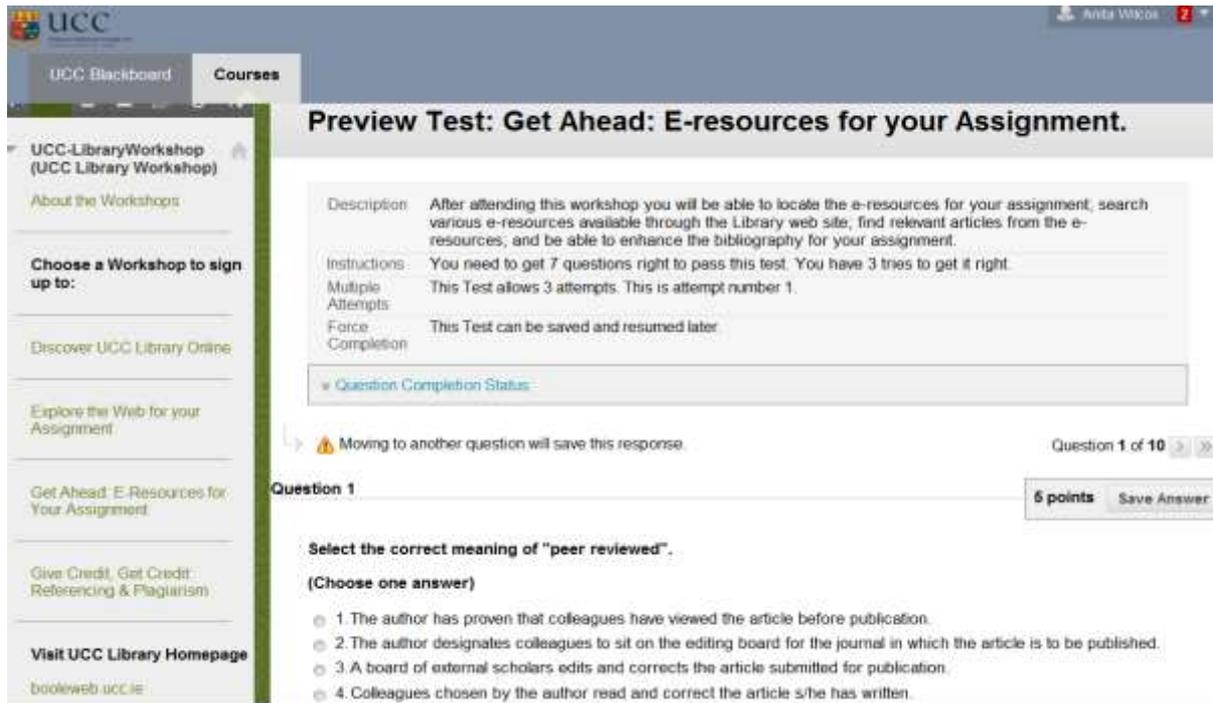
MCQs were also e-mailed to the Departments upon request so that, if desired, they could be circulated to their students.

See some Examples below:

Feedback & Statistics

The LUG Steering Committee collated all Attendance and Feedback Sheets for 2012, from Students and Presenters. These are the results:

Attendance:

Total University 1st year Undergraduate intake: 3500

Attendance per Library Workshop per week:

Library	Workshop	1:	597
Library	Workshop	2:	628

Library Workshop 3: 652

Library Workshop 4: 637

Total Library Workshop (Actual) Attendance: 2514

Total Attendance

## (percentage calculated using the highest attendance number)

Department	Promised Number	Actual Attendance					
		Wkshop 1	Wkshop 2	Wkshop 3	Wkshop 4	Total	
BSc Food Science	51	39			33	72	41%
BSc International Development & Food Policy	35	19		9	19	47	54%
Chinese	60	2			1	3	3%
Civil Engineering	28	3		2	3	8	11%
Economics	178				1	1	
EYCS	100	45		34	23		45%
Food Marketing & Entrepreneurship	35			29	24	53	69%
Food Science				40		40	
Geography	406	No Attendance	No Attendance	170	184	354	45%
Government	80	22		27	28	77	35%
Italian	98	2			2	4	2%
Law	183	168		146	146	460	80%
Process & Chemical Engineering	27	12		16	12	40	44%
Psychology incl Applied Psychology	470	62		25	19	106	13%
Sociology	349	50		31	22	103	14%
	2100	424	456	529	517	1926	25%

Where the departments advertised the Library Workshops and encouraged their students, the attendance rate was quite high. Geography, when their students were able to attend the last two units, scored a 45% attendance. Smaller departments like Food Marketing & Entrepreneurship scored a 69% attendance rate!
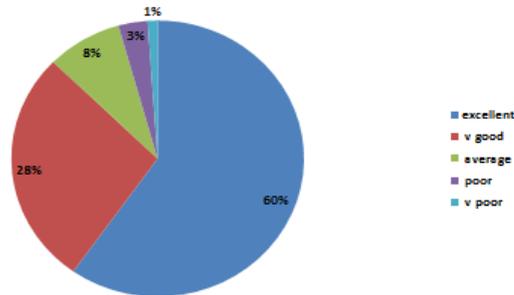
Student Feedback:

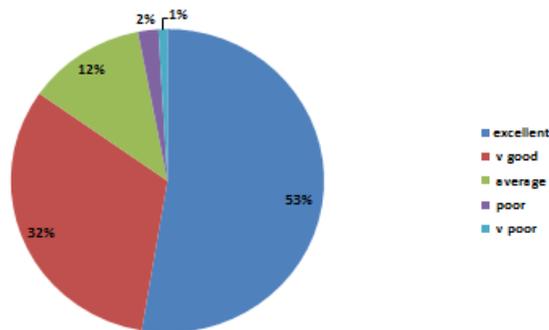The LUG Steering Committee then disseminated all the Feedback / Evaluation Sheets and produced the following charts:

Timing

- excellent 53%
- v good 33%
- average 12%
- poor 2%
- v poor 0%
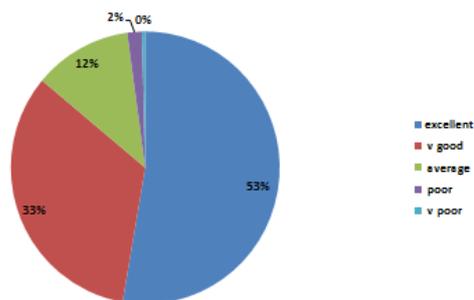
Size of Group

Length of Session

From this evaluation it seems that between 85% – 88% of attendees were highly satisfied with the workshops and thought it was worth their while to attend all 4!

However, the comments by the students provided the salient proof that delivering the workshops in this format was worthwhile.

Examples:

"Found the workshop extremely useful as it shows you how to make best use of the University's resources."

"The workshop is very helpful and should be made mandatory for each department, particularly First Years."

"Expected to be told stuff I knew already as I live on the Internet but learned how to use Google properly and about Google Scholar. THANK YOU. I feel more confident in tackling assignments now."

"Able to narrow searches to specific areas (applied research)."

"As a first year student, panic can kick in but this module was excellent regarding first assignment! Thank you."

"I liked the way we were shown how to cite different sources, books and the internet, and the information on plagiarism."

Staff Feedback:

The team also asked the presenters for their feedback.

- Time Slot - From the feedback forms it seems that presenters were happy with the time slots, in general, except for Fridays. *"Might consider cutting Friday out unless requested by a dept. or maybe cut out Friday afternoons?"*

- Format - Again, in general, the format worked well, with suggestions of *a "smaller hands-on tutorial type setting."*

- Content – *"Content was perfect for the groups."* Suggestion was to put up all the PPT presentations on the Booleweb – the Library Website - for all students.

All proved extremely valuable for our 2013 programme planning, which began in May 2013.

Conclusion

Thus, the outcome of our delivery of the Library Undergraduate Programme 2012 was very positive. Constructive comments, underlined by the favourable statistics generated by the delivery of our programme, encouraged us to embrace an even bigger challenge in 2013: to again reach out to all incoming 1st Year Undergraduates; continue to engage with the University's orientation and registration agenda; continue to expand our cohort of academic collaborators; and target academic 'champions' to collaborate with us in jointly realising our vision. In particular, we approached the Head of the College of Arts, Celtic Studies and Social Sciences, who signalled her whole-hearted interest in the programme, recognising both its advantageous application to incoming students but also recognising the significant benefits to teaching staff.

We already had the tools and resources to facilitate student learning, at perhaps the most crucial time in their careers i.e. as they embark on their academic lifecycle, but now we also have the evidence that demonstrates that our programme will enable the student to apply this learning in new situations and foster an active lifelong learning approach.

Our Library Undergraduate Programme is a collaborative vision for 21st Century education and competitiveness, which will ensure that students are provided with the best possible springboard from which to develop the essential skills necessary to succeed in the global skills race.

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