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Information Literacy Education for Masters

Students: the Search/Teach Exercise

Introduction

This paper describes an Information Literacy intervention undertaken with students on the MA Librarianship and MSc Information Management programmes at the University of Sheffield, UK, the Search/Teach exercise. Firstly the context of the interventions is described, then the university and the author's overall approach to Information Literacy and to learning and teaching in the module. The intervention is then described in some detail, finishing with reflections on students' response to the intervention.

The learning and teaching context

This exercise is part of a module "Information Resources and Information Literacy" which is core to both the Librarianship and Information Management programmes. The aims of this module are that students will:

- understand key aspects of Information Literacy and information behaviour including: the nature of information needs, information seeking strategies, and the complexities entailed in satisfying information needs;
- understand organisational issues relating to the satisfaction of information needs and developing clients' Information Literacy;
- will be able to demonstrate and evaluate their Information Literacy, for example expertise in accessing, using, comparing and evaluating information resources such as Web of Science, the Internet and DIALOG.

The module assessments are an annotated bibliography, a literature review drawing on the items in this bibliography and a reflection on the student's achievement in Information Literacy, structured around the SCONUL 7

Pillars model of Information Literacy (SCONUL, 1999). Each lecturer in Department sets topics, and then acts as a client and marks the assignment; students select from the lists posted to our Virtual Learning Environment (VLE).

About 60 students take the module each year, with a mixture of disciplinary backgrounds, nationalities and future career goals: usually about one third of the class are international students. We have some evidence about our students' experiences with Information Literacy: from previous research studies (Picken, 2005), and from an exercise on previous experience of Information Literacy that is undertaken in week one of the module. In this latter exercise students consider varying approaches to pedagogy for Information Literacy, as discovered through research (reference). This evidence shows that:

- Some students feel they have had no Information Literacy education in their first degree;
- Most of the rest recall Information Literacy being in the 1st year of their undergraduate degree;
- Different aspects of Information Literacy are brought into focus for the students by different types of assignment;
- Students report a variety of pedagogic approaches to Information Literacy by lecturers on their first degree course. However, the dominant approaches from teaching faculty are perceived to be those of facilitating access to information resources or seeing teaching Information Literacy as someone else's job.

This means we cannot make too many assumptions about students' Information Literacy, even at Masters level. However, all students come into the programmes with strengths in some area of Information Literacy. An aim of assessments and class exercises is to enable students to identify and apply their existing skills, and to identify and work on areas for improvement. Group exercises such as the one described here enable learners to demonstrate expertise and support their peers, as well as learn.

Information Literacy is identified in the University of Sheffield's Learning, Teaching and Assessment Strategy as one characteristic of a Sheffield Graduate, namely that a Sheffield graduate should: "Demonstrate the core capabilities and skills of Information Literacy, interacting confidently with the nature and structure of information in their subject and handling information in a professional and ethical manner" (University of

Sheffield, 2007). Thus the institutional context is supportive in stressing the importance of Information Literacy. The author's underpinning learning and teaching goals for Information Literacy education are that:

- Students become self-aware (critical and confident) about their own Information Literacy and information behaviour
- Students understand value of Information Literacy in their lives and work
- Adopting a pedagogic approach which facilitates this, using whatever tools, techniques etc are appropriate.

The Search/Teach exercise

The intervention described here is formative, and takes place mid-semester. Students are told that they will produce a brief guide to searching a specific database, and publish a short list of other resources providing training and advice. We call it the Search/Teach exercise, because students are themselves learning to search more effectively and then teaching these skills to others. It is also useful to have a short name for the exercise!

The reasons for introducing the exercise were:

- Although students had demonstrations of key databases and some hand-on exercises in class, a good number of them were not using the databases effectively to search for material for assignments;
- We want to increase the focus on teaching roles and skills for library and information professionals.

Producing database guides encourages students to explore databases in depth and think more critically about key features and functions. In order to explain the features to others, the students need to gain a level of expertise themselves. Knowing that the guides will be evaluated adds motivation, gives learners practice in exercising critical skills, and also provides useful feedback, without the lecturers having to mark the work.

A briefing sheet sets out the task and explains that by the end of the exercise students should:

- Have better knowledge and skills in using one or more of the databases which are the focus of the exercise: Web of Knowledge (WoK), Google Scholar, Emerald Library e-journal collection and Library and Information Science Abstracts (LISA);

- Have created a guide to WoK, Google Scholar, Emerald Library or LISA;
- Know more about the skills and knowledge needed to produce and evaluate support materials to help people search;
- Have increased knowledge and skills relating to Squidoo or a weblog (Squidoo is a free application that enables you to create a structured web page of information on a subject);
- Be aware of how these activities relate to Information Literacy and be able to reflect on their own strengths and weaknesses in these areas. This is relevant to the assignment for this module and for lifelong learning.

Students are also given a document which explains how this task relates to each of the SCONUL 7 Pillars of Information Literacy.

The Search/Teach exercise is represented in Diagram 1:

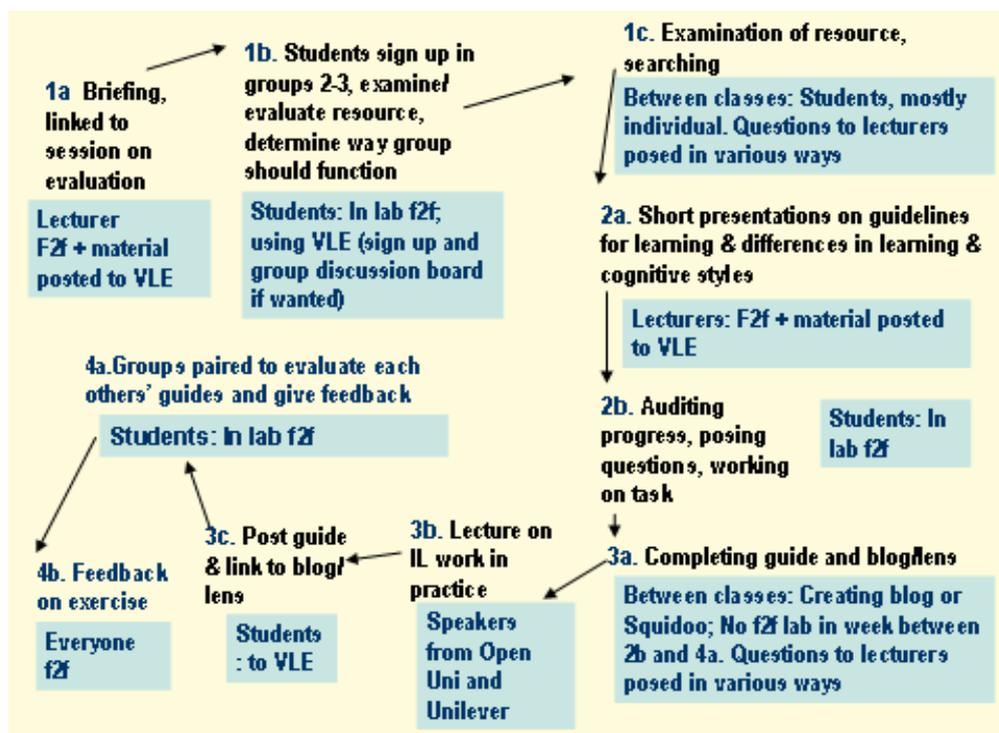


Diagram 1: The Search/Teach exercise

The Search/ Teach exercise is carried out over four weeks, starting in week 6 in 2006/7 and in week 4 in 2007/8. In Diagram 1 “f2f” means that there was activity face to face in class (a computer lab).

In the first week of the exercise, we explain the task and distribute briefing sheets. We immediately ask students to form groups independently,

using the Group sign-up function on our VLE (which is WebCT) and to start work on the task as soon as they have formed a group. The first time we ran this exercise (2006/7) we had groups of 4-5 students, but the students fed back that this was too large a group to manage for a formative task and that working in pairs would be easier. Therefore in 2007/8 we specified that people should find a pair, but could work in a three if they wished (which some did). We followed up non-attenders after the class and assigned them to groups. We set up private discussion groups for each WebCT group, so they could post draft material and have private discussion within their online WebCT groups.

Students were expected to work on the task between classes, familiarising themselves with their database, and with this postgraduate cohort we knew that this was a reasonable expectation. In week two of the Search/Teach cycle we gave two short presentations: one on learning and cognitive styles (and implications for supporting learners) and one on producing written search guides. Students then worked on the task in class, so we were able to ask them about progress and check that all group members were engaged.

In the first iteration of this exercise we used LAMS (Learning Activity Management Software: <http://www.lamsinternational.com/>) to design an online learning sequence about group working (as part of the DESILA project: <http://www.shef.ac.uk/desila/>). Students went through the online sequence in their groups, examining resources that advised about good practice in group work, including a quiz, and then answered some questions about their management of their Search/Teach group. Some groups were left with a list of actions (e.g. agreeing deadlines, exchanging phone numbers).

As the groups were smaller in 2007/8 this exercise was not so necessary, but it was certainly useful in 2006/7, enabling students (and us) to identify groups that needed extra encouragement. Although it may not seem directly related to Information Literacy, poor experiences within a group can be a major barrier to attaining any learning outcomes, so we aim to support the process of group work explicitly whether an actual task is assessed or not.

There was no class time devoted to the Search/Teach task in the third week of the cycle: students were developing their guides and preparing to post them to the VLE in time for the final Search/Teach class. However, the theme was continued, since the session that week included presentations from library and information professionals who were developing Information Literacy in their organisations. The speakers came from a university and a

multinational company. They gave practical examples of how and why they developed Information Literacy, and the strategies they used. This helped to reinforce some of the ideas we had introduced in the second week (in particular, the importance of thinking about who you were targeting and what their learning needs were). The speakers from the multinational company showed that Information Literacy was not just an academic matter.

By the final Search/Teach session students had to post their database guide to the VLE, together with a link to their weblog or Squidoo lens. They had already been given criteria to use in assessing the guides (see Appendix 1), and they used these in class. Groups studying different databases were paired: they swapped and evaluated the guides and then got together to present their evaluations to each other. We toured round the groups, asking questions and ensuring that students moved to the feedback stage. Finally we asked the whole class for feedback on questions such as: Were they likely to use the databases more? Had any of the databases been surprisingly useful or disappointing? Were there ways we could have improved the exercise? What did they feel they had got out of it?

We found that students were, by this point, able to argue the pros and cons of the databases in a more informed manner: sometimes differing views of a particular database emerge and these can be interesting debates. The main suggestions for improvement from the first year were making the groups smaller and starting the sequence earlier in the semester (so that it is further away from assessment deadlines, and develops skills earlier). We implemented both of these in 2007/8.

The guides were of a good standard, with some excellent work, indicating that students had understood database features enough to explain them coherently. Examples of an accompanying blog guide (providing links to other guides) is at <http://googlescholarlinks.blogspot.com> and of a Squidoo lens at <http://www.squidoo.com/usingemeraldinsight>. Our observation of the evaluation and feedback sessions was that students were able to apply assessment criteria to each others' guides and discuss issues raised by differing opinions.

In summary, we felt that this exercise provided a more effective alternative to sessions in which databases are demonstrated and exercises are set. Some students will engage enthusiastically, whatever the approach. However, when there are traditional hands-on sessions, there is the risk that students will see the goal as completing the exercises, rather than understanding how they might use a particular resource in their future

studies. Even when the exercises are tied into current assignments (for example, in this class, the bibliographies they need to compile) we have observed a tendency for students to concentrate on devising a strategy for a particular task, rather than gaining a deeper knowledge which would enable them to use the resource for a different task in the future.

The additional benefits were in exercising students' evaluative skills, and giving them practice in designing an educational guide, so that they could start to audit their skills in that area too. Further improvements can doubtless be made (e.g. in supporting creation of the blogs and Squidoo lenses to develop Web 2.0 skills) but it has been worth the effort in planning and implementing the intervention.

Acknowledgements

I wish to acknowledge the work of Professor Nigel Ford, the module coordinator, and the collaborator on this intervention.

References

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Appendix 1:

**Inf6350: Information Resources and Information Literacy
Framework for evaluating the guide**

These are some key questions, but this is not an exhaustive list and you may think of other aspects you wish to include in your evaluation.

Purpose
Is it clear what the aims of the guide are? Is it clear who the guide is aimed at? Is it clear whether the guide is meant to be a tutorial or a quick reference guide?
Structure
Is the overall structure logical and useful? In step-by-step explanations: is each necessary step clearly identified? Is it easy to find your way round the guide? Does it include all the elements you would expect, from its aims?
Layout and style
Is the guide legible and clear? Does the use of highlighting, headings, emphasis, white space etc. help to draw your attention to important steps, words & concepts? Is the use of graphics good?
Overall evaluation
Did the guide meet its aims? Did you find it easy to use? Would it help you search LISA/WoK/Google Scholar better? Overall, what do you think of it?

Framework for evaluating the Squidoo lens or Weblog

Layout and ease of use
e.g. is it easy to find your way round it? is the layout and design good (legible, attractive)? Does it work (e.g. do the links work)?
Content
e.g. Are the links relevant and well chosen? Are the titles and descriptions sufficient to give you a good idea of what to expect when you click on the link?
Overall evaluation
e.g. How well does it serve its purpose? Is it useful?

Both guide and lens/blog

Between them, did they include all the elements specified in the briefing for this task?
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