Does it really improve their marks?

A brief foray into measuring the impact of Information Literacy training at Middlesex University

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Background

We know from the work at the University of Huddersfield that there is a correlation between those students who use library resources and those who get higher-class degrees. Might we see any evidence of this at Middlesex in our teaching?

The authors are the librarians who support the School of Engineering and Information Sciences, which delivers computer science and product design engineering programmes.

In November 2011 we ran a number of two-hour training sessions for second-year computer science students who were working on a project on the Cornish villages 4G trial, a government-supported pilot to get broadband internet into hard-to-reach rural areas. We were of course interested to see what, if any, impact our teaching had. This short paper summarises the most significant results we obtained from the survey.

With the support of the module leader, in January 2012 we returned to the lab groups we had taught and got them to complete a short survey, using SurveyMonkey software. Of those, 66 had attended the library sessions. This was 88 students out of a total of approximately 210, 151 of whom had attended our two training sessions.
What marks did they get?

The results for those who attended library training show they got better marks, the most frequently occurring mark for those attending being 65% and those not 50%. The highest mark for those attending was 90% and 75% for those not. Bibliography marks were higher too, most frequently 7/10 v 5/10. But were they searching more effectively too?

What search tools did they use?

<table>
<thead>
<tr>
<th>Search tools used</th>
<th>Attendees</th>
<th>Non-attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google</td>
<td>68%</td>
<td>63%</td>
</tr>
<tr>
<td>Wikipedia</td>
<td>38%</td>
<td>27%</td>
</tr>
<tr>
<td>Summon (discovery tool)</td>
<td>68%</td>
<td>40%</td>
</tr>
<tr>
<td>Library catalogue</td>
<td>30%</td>
<td>59%</td>
</tr>
</tbody>
</table>

A clear result from these statistics is that the non-attendees relied heavily on the library catalogue. However, as we had explained in class, the topic is too recent to have been covered in books and relevant information could only be found by using newspapers and journals. Therefore Summon would have to be used to find information from library resources. Those attending knew this and so their use of the library catalogue is significantly lower.

We also teach the students that Wikipedia can be used, but with care, as a pre-search tool, rather than saying you simply cannot use it. So it is interesting to see the attendees giving use of Wikipedia a higher score. As for Google, we don’t say don’t use it, but explain that Summon gives them the quality information their tutors want them to use as well as access to expensive materials that are not free on the web. It is rather handy for us that IEEE Xplore, costing £61 000 per year, gives us a nice headline to show just how much is being spent on them in return for their tuition fees. To teach the pluses and minuses of different resources we use a card-sorting game to encourage a discussion of different resource types and when it is most effective to use them.

Did they learn to evaluate resources effectively?

To teach the basics of evaluation, we use an activity where students rate sample material (including a newspaper article from The Sun!) for quality against predefined criteria as a way to prompt discussion about what makes some resources better than others. In the survey I deliberately included easy to read as a criterion we had not discussed in class to see who might choose it.

<table>
<thead>
<tr>
<th>Evaluation criteria</th>
<th>Attendees</th>
<th>Non-attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>89%</td>
<td>59%</td>
</tr>
<tr>
<td>Relevant</td>
<td>76%</td>
<td>59%</td>
</tr>
<tr>
<td>Academic authority</td>
<td>67%</td>
<td>41%</td>
</tr>
<tr>
<td>Easy to read</td>
<td>24%</td>
<td>45%</td>
</tr>
</tbody>
</table>

The survey results on evaluation criteria show that those who attended are much more aware of the importance of academic authority as a criterion for quality than those did not attend. The non-attendees’ preference for easy-to-read material has been unsurprising to librarians, but raised understandable concerns when we later presented our work to academic colleagues not involved directly with this group.

Don’t get too excited yet!

We need to treat these results with caution. The Huddersfield study shows that there are a significant number of first-class graduates who do not use the library at all. So are the attendees simply those who would do well if we did nothing at all?

The other major concern is that nearly one third of students did not attend. Many also responded to the survey to say they already knew how to use the library so did not need this session, we assume because they had had a library session in the first year. Crucially, this session would have been before we bought Summon, so they would not have known how vital it was to use it. One student went so far as to say ‘I don’t think library training is relevant... I expect to have a real lesson.’

Yet the two tables of results would suggest they actually do not know. So how do you make them appreciate that library training is a real lesson too? Should this be compulsory?

Ways forward

The school is planning a major revalidation of the computer science programmes for the September 2013 start. A major shift of emphasis will be to put the lab workshops at the centre of the curriculum rather than the traditional lecture. This gives us an opportunity to get library training embedded into the learning objectives for the new modules and thus, we hope, seen as integral part of the curriculum that more students will want to attend.

For the time being, however, the survey has given us a very useful bit of information that we are
shamelessly exploiting: that attending library training will get you better marks.

REFERENCE

1 Graham Stone, Ellen Collins and David Pattern, ‘Digging deeper into library data: understanding how library usage and other factors affect student outcomes’, LIBER 41st Annual Conference, 27 June – 30 June 2012, University of Tartu, Estonia (unpublished; available from the University of Huddersfield repository http://eprints.hud.ac.uk/12973/)