Health Sciences Information Literacy Modules

Usability Testing Report

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1. Introduction

La Trobe University Library staff developed a series of information literacy online modules to support Health Sciences students in the new Common First Year in 2009. The required elements in the modules were essential to support enquiry-based learning and align with the curriculum, as well as learner centred, engaging, effective, scalable, and available at the point of need.

The modules were designed to suit the learning model in which students have to identify what information they have, what type of information they think they might need and find the information. Other design features of the modules included:

- The ability for students to dip in and out of whatever parts they need, rather than having to ‘complete’ them in a linear fashion
- A choice for the students to click on a diagram, which might relate to the stage they are at, in their information seeking.
- Availability to the students on the web at any time if they wish to come back to them.

The modules utilise the LibGuides software developed by Springshare, and consist of text, visuals of screens interspersed, practice exercises and multimedia videos (created both in-house and external) where appropriate.

As part of the Library’s extensive evaluation project of Library support to the Common First Year, usability testing of the modules was conducted between May and June 2009. The modules are available at: www.latrobe.libguides.com/health_sci

2. Ideas from the literature

There are many aspects to consider when designing usability tests. In reviewing 22 case studies of usability testing of academic websites conducted between 1999 and 2004 Letnikova (2008) reported on the importance of particular issues such as:

- the role of the wording of questions
- testing should cover parts of the interface which are related to common tasks
- tasks need to be able to be completed within a given time frame
- important to include a morale boosting task first (and as a 'warm-up' exercise)

Letnikova also points out that it can be difficult to determine why a participant fails to perform a task – was it because of poor design of the site, wording of the usability testing, or lack of information seeking skills? This is also noted by Vaughn and Callicott (2004), who state that ‘usability presumes that all problems associated with a web site stem from design issues’ (p.13), where in fact often the actual issue is the lack of research skills, (including fundamental library skills), and knowledge of library terminology.

Other usability testing guidelines evidenced by reports of usability studies (U.S. Department of Health and Human Services, 2006) provide suggestions such as:

- ‘conduct a test where representative participants interact with representative scenarios’ (p. 188)
- ask for participants to comment either during the task or afterwards
- the number of participants tested should be more than 6

Although the Letnikova review and U.S. Department of Health and Human Services guidelines were related to web design, many of the issues were seen as relevant, and therefore considered, in relation to the design of usability testing for modules in this context.
3. Summary of the background and logistics

Objectives of the testing
The aim was to gain student feedback on the structure, design and navigation of the LibGuides, and the usefulness of the content. The activities were created with all aspects in mind. If a student has to do task X, can they:

- Find the instructions on how to do task X?
- Follow the instructions to actually do task X?

Objectives of the testing did not include placement of the link to the modules i.e. finding or navigating to the modules from either the Library homepage or the Learning Management System.

Pilot testing
Pilot testing was carried out at the Albury-Wodonga (1 session) and Bundoora (4 sessions) campus Libraries on 15th May 2009. As a result four versions (sets) of the testing were created, rather than the original three, to reflect the broad content coverage of the modules. Some pilot participants felt that they were in a ‘test’ situation (as if they personally were being tested, and not the modules), so in order to address this aspect and make participants more comfortable, a few changes were made:

- A standard easy morale boosting activity was placed at the beginning of each activity set as suggested by Letnikova (2008), so that the participants were able to ‘warm up’
- Extra notes were placed in the both participant and staff instructions to reassure the participants that it was about the usability of the modules and not their ability to find information
- The word ‘testing’ was removed from the activity title in favour of usability ‘feedback’
- Overall, activities and the brief feedback survey were adjusted based on the pilot feedback

When and where the testing was held
Usability testing was conducted with twenty-one students across the Albury/Wodonga, Bendigo and Bundoora campus Libraries of La Trobe University between 26th May and 19th June 2009 at a mutually convenient time for students and Library staff. The testing was timed so that it would be conducted once the Information Literacy Quiz¹ had closed. Each usability testing session took approximately thirty minutes including explanation.

The participants: information about how they were chosen and any other non-identifying details
Participants were all first year Health Sciences students of La Trobe University.

- Albury-Wodonga participants were randomly chosen from groups of health sciences first year students working in the Library.
- Bendigo participants were a targeted group of mature age students.
- Bundoora participants were a mixture of students who had volunteered via forms given out at Library sessions and from Health Sciences first year students working in the Library.

Participation was voluntary and students were provided with coffee or movie vouchers in appreciation of their time. Although not intentional, there was representation in terms of gender, age groups, local and international students.

Who conducted the testing
Although Health Sciences librarians (1 at Albury-Wodonga; 1 at Bendigo; 4 at Bundoora) conducted the testing, the students were left on their own to complete the task with brief verbal instructions given, but detailed instructions on paper.

¹ The Information Literacy Quiz was delivered via LMS, consisted of 15 randomised multiple choice questions based on the content in the modules, and worth 5% of the student’s assessment of a first semester unit.
What was tested
The testing consisted of three activities which recorded students via screen capture and audio. There were four versions/sets which focussed on tasks relating to usage of different modules. The students were also asked to complete a brief written feedback survey.

Each set consisted of instructions for library staff, instructions for participants, an activity sheet with space for comments and detail about tasks, and a brief feedback survey, in which students were able to make comments about particular aspects of the modules. Brief information about the aim of each set is given in table 1, with the documents for all testing sets in Appendix 1.

Table 1. Aims of Usability Activity Sets

<table>
<thead>
<tr>
<th>Activity set number</th>
<th>Aim of the Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Activity required the student to locate the module to help them “Find an item on a resource list”, then use that information to find the listed citation and access the full text on screen.</td>
</tr>
<tr>
<td>2</td>
<td>Activity required the student to locate the module to help write out a reference in correct APA style, and within that module find an appropriate example, then use the information in the example to write a citation correctly.</td>
</tr>
<tr>
<td>3</td>
<td>Activity required the student to locate the module on “Finding journal articles on a topic”, then use the guidance to find a listing (not full text) of 3 journal articles on diabetes via the library.</td>
</tr>
<tr>
<td>4</td>
<td>Activity required the student to locate the module/tutorial to help determine the credibility of a website and show what they’ve found by writing down two points.</td>
</tr>
</tbody>
</table>

Table 2. Activity sets distribution by campus
Activity sets were distributed across campuses so that sets one and four were utilised at three campuses and sets two and three at two campuses.

<table>
<thead>
<tr>
<th>Activity Set no:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number completed overall</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>Number completed by campus</td>
<td>1 AW 1 Bend 4 Bund</td>
<td>1 Bend 4 Bund</td>
<td>1 AW 4 Bund</td>
<td>1 AW 1 Bend 3 Bund</td>
<td></td>
</tr>
</tbody>
</table>
Technical aspects
Students were given fifteen minutes to do the activities and five minutes to fill in a brief feedback survey. At the beginning of the session, Library staff set up the computer with Camtasia recording software and opened two screens: the Information Literacy Modules and the Library homepage. Browsers in use for the testing were: Firefox (used by two campuses) which was preferred, and Internet Explorer (one campus had technical problems with Firefox). There were three instances in which the audio did not record.

Ethics
This project complies with the relevant ethics guidelines: La Trobe University, Human Research Ethics Guidelines, Staff Survey Guidelines and Student Survey Guidelines, and falls into the “negligible risk” category.

4. Limitations

Timing
Testing was scheduled after all students had been able to complete the online Library Quiz, an assessment within HLT1IPA. There was only a short time frame to carry out the usability testing between completion of the quiz and semester one examinations. Therefore the availability of students at this time was difficult, and resulted in lack of attendance of scheduled appointments and rescheduling in a few cases. Scheduling, communication, administration and organisation of the sessions was time consuming.

Brief feedback survey
Participants made positive comments about certain aspects e.g. navigation (perhaps because they were asked a direct question and don’t like to say negative things), however, this did not match with that particular participant’s results, as it was obvious from the recording that the participant had problems with navigation.

Equality of testing sets
The four testing sets were not equal in the level of difficulty, yet the same amount of time was allocated to all, with participants testing set three at a definite disadvantage due to the complexity of the task and the amount of material.

Clarity of instructions
It was clear from viewing the on screen activity that some participants were uncertain of what was required to undertake the usability task and it may have been beneficial to give more verbal instructions.

Language
The language in the activity sets may have created confusion for some participants, as discussion after the testing revealed that one of the participants was an international student.

Choice of activity example
In Set 1, participants were asked to find the full text of a single known journal article citation. At the journal supplier point, the article was not on the first page of the issue (screen), making the task a little more complex than perhaps necessary. The article was titled ‘Understanding teams and team work’ and as the articles were displayed alphabetically, participants had to scroll through three screens to find it.

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5. **Summary of the qualitative and quantitative data**

5.1 **Activity 1 Summary**

In this first activity all participants were asked to view the video ‘Can’t I just Google?’ which is available from the left hand menu bar on the Health Sciences Information Literacy Modules homepage. Students were advised that the video would take three minutes and were asked to comment on what works well, and what could be improved with this video. The twenty one student responses were summarised into three facets – appropriateness or usefulness, physical quality and acting or animation of the video.

**Appropriateness, usefulness or relevance of the material**

A majority of respondents (14) commented on the usefulness of the material, indicating they understood what it was explaining, and could relate to the scenarios, that it was relevant and accurate. Students found the video easy to listen to, with humour, and a clear explanation and depiction of the real life university situation. There was also comment on the usefulness of a visual tool, animated video, and impressive graphics.

Some of the positive comments included: ‘students would relate well to animated video’; ‘appropriate’; ‘easy to listen to’; ‘to the point’, and ‘easy to understand’; ‘slow; clear; images help’; ‘easy to relate to the characters’; ‘specifically says wikipedia is bad’; ‘graphics and visual’; ‘speech is clear’; ‘information put in an interesting way’.

The suggestions for improvement included:
- instruction on how to improve searches
- guidelines for better ways to conduct research
- more examples would have improved the video
- examples of websites not to use
- examples of scholarly databases (including Google Scholar) and how to find them
- how to narrow the searches
- how to access the full text of documents
- provision of subtitles, so that information is clear for international students.

**Physical quality of video**

Seven students commented on the physical quality of the video, with three positive and four negative responses. Positive comments included, the ease of listening and understanding, and the clarity and speed of the speech. Students also mentioned that the graphics and visuals were good.

The negative comments related to the video transmission; one student noting the transmission being ‘jerky’, ‘the video lags and doesn’t run smoothly’. Two students noted that clarity of speech was a problem, one being an international student who also added that the speed of the speech was problematic. Two students commented on the length of the video, and felt that a shortened version would be an improvement.

**Acting and animation**

Four positive comments noted that students would relate well to animated characters, and felt that the acting and animation was easy to listen to, to the point, slow, clear, displayed helpful images and graphics, and it was easy to relate to the characters. There were seven negative comments which concerned the use of animated characters generally, in particular, comments on the girl in the video being cold, her tone of voice, not appearing very friendly, just reading the script and not talking naturally. She also sounded angry and the student felt she was off putting. Another comment noted her as a little degrading. Students also commented on the use of cartoon characters being childish, and using people would make it easier to relate to. One comment noted the cartoon walk as funny.
5.2 Summary of Sets 1 – 4
Analysis within each set is divided into different steps, depending on the level and aspect of analysis required for each module.

Set 1 – Find the module to help with finding a known journal article citation. Then follow the guidance to get the full text of the article.

A) Finding the correct module:

What worked

• 3 of 6 participants chose the correct module

What did not work

• 2 of 6 participants selected the incorrect module
• 1 of 6 participants did not use the module at all.

Issues

• At some point 4 of 6 participants were looking for guidance in ‘Finding journal articles by topic’, indicating a level of confusion
• Some participants did not recognise the correct module at all, (or were confused between the ‘Finding items… and Finding journal articles…’) instead used ‘Finding journal articles on a topic’
• 1 participant did not realise that they needed to use the modules at all.

Findings

The module ‘Finding items on a resource list’ is not always recognised as a tool which will help students find a single journal article from a known citation. When students are using this module to find items on a resource list for their subject enquiry task, the module is linked as a tool to help with that task, but when presented with a single journal article citation, it seems there was confusion between the modules ‘Finding items on a resource list’ and ‘Finding journal articles by topic’, with participants favouring ‘Finding journal articles by topic’ (perhaps by matching up the language ‘journal article’).

B) Finding an appropriate pathway within the module:

What worked

• Of the 3 (of 6) participants who chose the correct module, only 2 used an appropriate path within the module.

What did not work

• 1 of 6 participants found the correct module but did not use it.
Issues

- Navigation:
  - Two participants scrolled to the bottom and missed the top tabs, however one participant linked to other tabs within the boxes
  - One participant hovered and tried to click on spots within the first screen on ‘Finding items on a resource list’ example
  - One participant, even though in the correct module, did not recognise this as a pathway to finding the journal article

Findings

**It is beneficial to have internal links to the following page in the modules.**
In this module there are internal links, to give the students an alternate path in case they miss the top tabs.

**Top tabs are not seen as an obvious pathway through the modules.**
No participants used the top tabs, but one did link within the box to the next section.

**Participants attempted to use the left menu to navigate within the module.** Most participants used the left hand menu bar in an unsuccessful effort to navigate within the module, possibly one of the reasons that participants used the ‘Finding journal articles by topic’.

**The finding journal article citation multimedia item is a useful tool.**
One participant commented that video instruction was preferable to reading instructions.

C) Follow the instructions to get a result - Journal title level:

What worked

- 2 of 6 participants found the journal title (either print or electronic) after using the instructions in the modules for guidance
- 3 of 6 participants found the journal title (either print or electronic) from searching the Library catalogue, without using the modules for guidance.

What did not work

- 1 of 6 participants went to Articles via Databases and searched across general health databases and searched unsuccessfully for the journal title in LibXplore.

Findings

**Most participants (5 of 6) got to (even if eventually) the journal title level in the Library catalogue, although they didn’t all use the guidance in the modules.**
D) Follow instructions to get a result – Journal article full text:

What worked

- 2 of 6 participants found the full text of the journal article using the module for guidance
- 1 of 6 participants found the full text of the journal article using the Library catalogue intuitively and did not use the modules.

What did not work

- 3 of 6 participants did not find the full text of the journal article.

Issues

- Electronic resource record vs print copy record issues:
  - 2 participants clicked on the print copy record trying to access full text
  - Participants who found the correct journal title via the Library catalogue (print and electronic) did not realise (just hovering) to click on the title with the format [electronic resource] to continue through to the full text of the article
  - One participant navigated between the modules and the databases without success, clicked on the journal print record and wandered around looking at the print locations clicking and looking for full text (possibly as the print record displays first in the results list, participant did not click on the electronic record which displays second in the list).

- Proquest issues:
  - One participant had trouble finding the article in the Proquest article list of search results, not realising that the articles were listed alphabetically. (i.e. Understanding teams and team work….had to click through three screens to find it). This is possibly a limitation of this task – it would have been perhaps more useful to choose an article that was on the first page.

- LibXplore issues:
  - One participant typed the journal title into LibXplore without success, so did not proceed to the article level.
  - As the Google cartoon exercise was viewed first, this may have influenced the participant’s decision to use LibXplore, as this method of search is depicted in the cartoon.

Findings

It appears that some students have difficulty interpreting the Library catalogue journal title search result, as shown by participants who did not recognise the difference between the print copy record and electronic record. The record that shows [electronic resource] in the format field does not seem to be intuitive enough, as some participants hovered over both links and in some cases did not click through to the full text of the journal issues underneath. Only one participant found the journal title easily using the modules.

Participants, who got to the journal title level in the Library catalogue (5 of 6), did not necessarily successfully achieve access to the full text where available (2 of 6). Only two of the six participants used the modules successfully to find the full text of the article. The other four participants had problems ranging from recognition of, and navigation within the modules, interpretation of the catalogue entry in the search result, and interpretation of instructions for using the databases. This is complicated by the fact that the LibXplore search box sits underneath the list of databases (when searching the list of databases by subject), which guides the participant to that box, nowhere does it suggest to the participant to click on the individual database to search the native interface.
Set 2 - Find the module to help write out a reference in correct APA style, within that module find an appropriate example, and then use that information to write the citation correctly

A) Finding the correct module:

What worked

- 4 of 5 participants chose the correct module instantly.

What did not work

- 1 of 5 participants did not use the module but may have been confused by the task

Findings

'Referencing with APA' is a recognisable label as being relevant to this type of task.

B) Finding an appropriate pathway within the module:

What worked

- 4 of 5 participants chose a link which would lead them to an appropriate example

What did not work

- 1 of 5 participants did not use the module but may have been confused by the task

Issues

- Of the 4 participants who used the modules: only 1 used the top tabs; and none used the sub tabs or the examples provided in the module which would have provided a more direct solution and used less clicks (instead clicking through to the examples in the Study Skills Handbook).
- 1 participant did not use the modules but may have been confused by the task
- Having links in the text of a page, in addition to tabs was beneficial, as 4 participants used in-text links to lead to an appropriate example, with one participant using a top tab (eventually).
- Participants seemed to recognise the Faculty's Study Skills Handbook (Pavlidis, 2009) as being able to assist with referencing.
Findings

**It is beneficial to have in-text links within the boxes as an alternative path to the top tabs.** It seems (due to hovering and scrolling up and down) that in regard to navigation of the modules, it is not intuitive to work through the top tabs.

**It is beneficial to have the main Faculty source (a clearly recognisable tool) as a link in a prominent place.** Participants did not use the ‘Examples’ tab in the modules, perhaps because it was not an in-text link on the main page, or because they recognised a tool (Study Skills Handbook) they are familiar with first, before having an opportunity to see the tab.

C) Find an appropriate example and use it to write a citation in APA:

What worked
- 4 of 5 participants found their way to an appropriate example to copy/model/guide. In all four examples, participants used an appropriate source found in the Faculty’s *Study Skills Handbook*. Of the 4 participants who found an example to model, scores\(^3\) of their APA citation skills ranged between 2/10 – 8/10.

What did not work
- 1 of 5 participants did not use the module but may have been confused by the task

Issues
- Despite one participant not seeking an appropriate example in the modules, the participant found the item via the Library catalogue and achieved a score of 9/10 for the APA citation skills. Perhaps this was due to existing knowledge, as in this participant’s brief feedback survey in answer to question about how would you have known how to cite in APA before today, the participant noted: “Mainly rely on booklet written by lecturer and seminar run”
- It seemed that at least one participant followed a description of elements for a book citation rather than the example below it from the *Study Skills Handbook*, and therefore omitted the correct punctuation.

Findings

**Most students found an appropriate example to model via links in the modules and were able to list a citation in at least partly correct APA style.**

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\(^3\) Each participant was given a score out of 10 based on correct placement of elements, correct punctuation etc.
Set 3 – Search for a journal article on a topic

Find the guidance in the modules on finding journal articles on a topic and read or view anything that looks relevant. Follow the guidance you found in activity two, to find 3 journal articles on diabetes via the Library.

‘Activity three is completed when you have found three relevant journal articles listed. You do not need to view the full text of the articles’ (as stated in the task instructions)

A) Finding the correct module:

What worked

- 4 of 5 participants chose the appropriate module

What did not work

- 1 of 5 participants did not go to the modules at all

Issues

- Some participants used the tabs but did not use the sub tabs
- 1 participant did not realise that the red tab was the top tab, and only used the sub tabs
- 1 participant looked at the module but did not see the relevance to the activity, possibly did not understand the task of usability testing, this could also be attributed to a flaw in the testing design indicating that the task was not clear enough

Findings

‘Finding journal articles on a topic’ is a recognisable label as being relevant to this type of task. The participants recognised the correct module, and appeared to find this quite easily as evidenced by the way it was found quickly, not scrolling up and down scanning the module titles.

B) Finding the appropriate pathway within the module:

What worked

- 4 of 5 participants used the correct module and reached the content in the modules (search databases) to assist with the pathway to an appropriate database.

What did not work

- 1 of 5 participants did not use the module at all.
Issues

- Of the four participants who navigated around the module there was, apart from the use of one subtab, no use of sub tabs by three participants, which in this case held vital information to the task related to particular databases.
- The task of finding journal articles does have steps and a linear order of aspects – so how students absorb or don’t absorb this stepped process may be a significant factor in how the content from the modules is digested and applied.
- There was much clicking and scrolling by at least one participant who seemed unsure of an appropriate path to the relevant information in the modules.
- Links in the module pages to tabs or sub tabs, where they may have been helpful, were scrolled or seemingly skimmed over.
- Four participants used a combination of links to tabs from the main page and top tabs, with more use of links within pages rather than top tabs.
- Some participants also viewed practice exercises content and navigated from that page to search for Proquest on the Library homepage.
- One participant did not understand ‘Identify search terms’

Findings

The pathway through the module was not clear in the case of this particular task which may be due to placement, labels, design or other. There was more use of the top tabs in this task than other tasks with most participants methodically navigating their way through the module. Links within the modules to tabs content were well utilised, but sub tabs were not generally used. It is beneficial to have internal links to the following box in the modules; however in this module even though most of the participants worked through the modules via the top tabs, some missed the top red tab as the main page and only used the sub tabs. There did not appear to be clear understanding of the pathway to the databases, considering the methodical examination of the modules by some participants. The ‘Search Databases’ link was used but it seemed that participants were unsure where to go after that.

C) Follow the guidance to select a database:

What worked - Choice of entry point at the Library home page

- 3 of 5 participants clicked on ‘Articles via Databases’ > Subject area > Health > General
- Only 1 of these three participants clicked into the database CINAHL to use the native interface

Did not work - Choice of entry point at the Library home page

- 2 of 5 participants clicked on ‘Journal Titles’, although one of those verbalised that he/she was looking for the Proquest link.
- 4 of 5 participants had chosen ‘Journal Titles’ at some point.
- Of those who had chosen ‘Articles via Databases’ (3 of 5), two participants used the ‘Search within these databases’ LibXplore search box
- 1 of 5 participants spent a lot of time between the Library catalogue, the University home page and the module, without finding the databases at all (at one point typing in ‘journals’ in the University home page search box)
Issues

- ‘Journal Titles’ as an entry point, albeit not the appropriate pathway was a popular choice with all the participants, even though 3 participants eventually used the more appropriate ‘Articles via databases’. Labelling of the tabs on the Library home page appears to create confusion between ‘Journal titles’ and ‘Articles via databases’.
- Most of those, who clicked on Articles via databases > Subject area > Health > General, used the LibXplore search box, which resulted in too many and/or irrelevant articles and seemed to create confusion. Note that an error in the Can’t I just Google? video does include that search box in use, although guidance in the modules directs students to the native interface links rather than the ‘Search within databases’ box.
- One participant commented ‘hard to know which database to use’ but did not use the information icons to check.
- Participants did not recognise Proquest as a database, thereby not realising/matching the location of Proquest within ‘Articles via Databases’.

Findings

Instructions in the modules on choosing and accessing a database did not effectively guide the participants to the selection and use of an appropriate database. All participants searched initially in ‘Journal Titles’, although three did move to the appropriate entry point of ‘Articles via Databases’. Selecting an appropriate database appeared to be a huge challenge for participants, as they appeared to get lost at the point of navigation from module to the Library home page.

D) Find a usable list of relevant articles:

What worked

- 1 of 5 participants found the list correctly from a search in the database CINAHL

What did not work

- 4 of 5 participants overall, did not find a list of three relevant journal articles
- 1 of 5 participants found a usable list of articles, via the catalogue, journal title, clicking on the Proquest location link, then searching under ‘Suggested subject headings’ within the Proquest database
- Of those who had chosen ‘Articles via Databases’ (3), 2 participants used the ‘Search within these databases’ LibXplore search box and did not achieve a relevant result
- 2 participants who had initially used the ‘Journal Titles’ tab found a list of three relevant journal articles by searching within a relevant electronic journal title record

Issues

- Proquest issues – covered in Set 1
- Participants did not always recognise the publisher site as a location to click on, for example Wiley Interscience – but they did click on the Proquest link, possibly because this was demonstrated in the module
- Some participants had difficulty at the publisher’s web site, and did not realise they needed to click into an issue list
- 1 participant did not recognise that ‘Access full text’ was a pathway to the full text of the article
- All participants at some stage during the activity looked for journal articles under the ‘Journal Titles’ tab, and scrolled through journal titles on diabetes
Findings

Instructions in the modules to access articles from a Library database did not effectively guide the participants to access a relevant list of articles by searching an appropriate database. Only 2 of the five participants found a usable list of articles, and only 1 of these completed the task correctly by searching within the native interface of the CINAHL database. Participants who used the LibXplore search box were unable to achieve a result due to too many and/or irrelevant articles.
Set 4 - Find the module to help determine the credibility of a website and show what they’ve found by writing down 2 points related to credibility.

A) Finding the correct module:

What worked

- 4/4 who completed this activity chose appropriate module

What did not work

- One participant did own searching in another module “Finding health & social statistics” and so did not participate in this particular activity. A brief feedback survey was completed however from this participant.

Findings

‘Finding Credible Internet Information’ is a recognisable label as being relevant to this type of task i.e. someone looking for guidance on what criteria to use

B) Finding the appropriate pathway within the module:

What worked

- 4 of 4 participants followed a path to either ‘Credibility tab’ (2 participants) or ‘More info on credibility’ link at bottom of main page (2 participants)
- 1 participant commented that the mouse over explanation on the left menu was useful
- Comments by 1 participant regarding navigation: ‘Handy to scroll down and navigate within as a step by step approach’ and ‘Easy to go back’

Issues

- Didn’t read the information (or stay) once in the credibility tab and went (left menu) to ‘Finding Journal Articles by Topic’ > peer reviewed information (1 participant who is mature-age)
- 2 participants did not use the top tabs
- 1 participant seemed to expect the answer to be on the main (first) page
- 1 participant who used top tabs and went thoroughly through all of them, did not use the sub tabs

Findings

Both top tabs and links in the first page led participants toward an appropriate path, however navigating to content beyond that appeared problematic. Sub tabs information was not utilised on the whole
C) Showing what they’ve found by writing down 2 credible points

What worked
- 3 of 4 participants successfully found the relevant information and noted 2 correct credible aspect points each
- Participant comments: “good visuals”; liked examples under “what to look for”; “bias explanation good”.

What did not work
- One of 4 participants completed the activity with assistance

Issues
- As above, 1 of 4 participants had been in the correct place but since didn’t stay there, didn’t complete activity independently (seemed to be not confident). Librarian assisted, although participant had been in appropriate place.

Findings
The content of the credibility criteria information is clear enough for most participants in this testing to read, absorb and note (hence comments above, with visuals and examples seen to be useful).
5.3 Frequency and Severity of Issues

Where issues are identified, it is useful to analyse the frequency and severity of the issue across the activities in the sets to assist in prioritising any recommendations. ‘The number of users affected determines the frequency of a problem’ and ‘the severity of a problem should be defined by analysing difficulties encountered by individual users’ (U.S. Department of Health and Human Services, 2006: 191). If the difficulties block a user from getting to vital information or instructions to achieve a task, then the severity rating would be high.

**Frequency** in this report has been given ratings of:
- L (low) = occurs in 1 set
- M (medium) = occurs in 2 sets or most of the participants in 1 set
- H (High) = occurs in 3 or more sets

**Severity** in this report has been given ratings of:
- L (low) = did not affect achievement of task
- M (medium) = partly affected achievement of task
- H (High) = severely affected achievement of task

Main issues arising from the activities in the sets have been given a frequency and severity rating in the table below.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Frequency rating</th>
<th>Severity rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of use or confusion when using tabs or sub tabs. Problematic in all sets for many participants.</td>
<td>H</td>
<td>H</td>
</tr>
<tr>
<td>‘Journal titles’ link in Library homepage used when searching for journal articles by topic. Problematic in one set but for most participants of that set.</td>
<td>M</td>
<td>H</td>
</tr>
<tr>
<td>LibXplore search box use. Problematic in 2 sets</td>
<td>M</td>
<td>H</td>
</tr>
<tr>
<td>Selecting an appropriate database to search. Problematic in 1 set but for most participants of that set.</td>
<td>M</td>
<td>H</td>
</tr>
<tr>
<td>Electronic resource vs print copy issues in Library website. Problematic in 1 set but for most participants of that set.</td>
<td>M</td>
<td>H</td>
</tr>
<tr>
<td>Trying to use left menu bar for navigation within a module. Problematic in 1 set</td>
<td>L</td>
<td>M</td>
</tr>
<tr>
<td>Trying to click on screen capture. Problematic in 1 set.</td>
<td>L</td>
<td>L</td>
</tr>
</tbody>
</table>
5.4 Brief Feedback Survey Summary

**Question 1 a)** Participants were asked if they had used the modules before. 15 of 21 had used them before (71%) and 6 of 21 had not (29%).

**Question 1 b)** Participants were asked that if they had used the modules before, had they used the practice exercises, and if yes, how useful they were. Of those who had used the modules, 8 of 15 had used the practice exercises. All of those who had used the practice exercises made positive comments about the usefulness of them as is shown in table 3.

**Table 3: How useful were the practice exercises?**

<table>
<thead>
<tr>
<th>ID</th>
<th>Responses: (for those that had used the modules)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good to practice, but need to do it several times to improve skills</td>
</tr>
<tr>
<td>6</td>
<td>Quite useful, but searching still difficult</td>
</tr>
<tr>
<td>9</td>
<td>Gave big picture of how it works</td>
</tr>
<tr>
<td>10</td>
<td>Pretty useful as provide relevant things</td>
</tr>
<tr>
<td>14</td>
<td>Practice questions for referencing were good</td>
</tr>
<tr>
<td>15</td>
<td>Quite useful; lot of information I didn’t know of till then</td>
</tr>
<tr>
<td>19</td>
<td>Quite good if you read the instructions properly</td>
</tr>
<tr>
<td>21</td>
<td>Very useful; like the examples; being visual, makes it clearer &amp; easy to follow</td>
</tr>
</tbody>
</table>

**Question 2.** Participants were asked how, before the testing day, they would have attempted the activities in the testing sets. There were four versions of this question, each relating to the question set which the participant was given. Responses are below for each set and show that 9 of the 20 participants (45%) who responded to this question answered that they would have taken appropriate action, with 11 of the 20 participants (55%) choosing pathways which would not necessarily have led to results.

**Table 4: (set 1) Before today, how would you have found a listed journal article?**

3 of 7 participants it seems would have searched in an appropriate place, 2 would have asked for help, 1 stated ‘trial and error’ and 1 had not tried before.
Table 5: (set 2) - Before today, where would you look for APA style?

3 of 5 participants stated they would use the Faculty's Study Skills Handbook and/or Academic Skills seminar, and 2 stated they would Google for guidance.

<table>
<thead>
<tr>
<th>ID</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Print copy of LaTrobe Study Guides</td>
</tr>
<tr>
<td>4</td>
<td>Google ‘referencing guides’</td>
</tr>
<tr>
<td>9</td>
<td>Mainly rely on booklet written by (lecturer) and seminar run by (lecturers)</td>
</tr>
<tr>
<td>10</td>
<td>Google it</td>
</tr>
<tr>
<td>16</td>
<td>Study guide</td>
</tr>
</tbody>
</table>

Table 6: (set 3) - Before today, how would you have found journal articles on a topic?

1 of 4 participants stated she/he would use the same method, 2 said they would use Library searching and Google and 1 stated ‘luck’.

<table>
<thead>
<tr>
<th>ID</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Same way</td>
</tr>
<tr>
<td>11</td>
<td>Library website, but mainly Google</td>
</tr>
<tr>
<td>12</td>
<td>Library search engine and Google</td>
</tr>
<tr>
<td>17</td>
<td>Luck</td>
</tr>
</tbody>
</table>

Table 7: (set 4) - Before today, how would you have evaluated whether an article was credible enough?

2 of 4 participants said they would trust an internet source if it was correlated to a journal, and 2 participants indicated before today they would ‘trust websites’ and ‘take as reliable’.

<table>
<thead>
<tr>
<th>ID</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Search 3-4 sites on Google and if information corresponds, take as reliable</td>
</tr>
<tr>
<td>13</td>
<td>Search journal title in library to confirm authenticity</td>
</tr>
<tr>
<td>18</td>
<td>If it was in a journal</td>
</tr>
<tr>
<td>21</td>
<td>Would trust websites</td>
</tr>
</tbody>
</table>
Question 3. Please comment on any aspects of using the health sciences information literacy modules?

Participants were given an opportunity to comment on any aspects of using the modules with particular aspects listed as prompts (see table below), but they could also comment on any other aspects. Not all 21 participants commented on all aspects listed or at all.

In total there were 110 comments with 62% falling in the positive range and 16% very positive (combined 78% positive or very positive). Those comments with more in the positive or very positive range were usefulness, helpfulness, design, content, AV media and language. Respondents were almost unanimously positive about content, finding it useful and helpful. AV multimedia was generally viewed positively (with positive comments on the animated video), and language was considered appropriate level, without too much jargon.

There were 2 neutral comments/suggestions.

The negative comments accounted for 18% of the total; with negative and very negative combined totalling 20%. The comments with the most responses in the negative range concerned navigation and in part, design. Problems were identified, in the design, which some found too busy and confusing leading to difficulties in navigation. Comments included: ‘too much information on page’, ‘overwhelming’, ‘module section didn’t stand out’, ‘needs clearer instructions’, ‘confused by all the links at the top’, ‘tabs at top not immediately obvious’, ‘easy enough if you read the instructions properly’! Several people mentioned wanting a librarian led tutorial on using the modules, or expressed preference for personal rather than computer based teaching/learning.

Table 8: Tabulation of comments on aspects of using the modules

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Very Positive</th>
<th>Positive</th>
<th>Neutral/Suggestion</th>
<th>Negative</th>
<th>Very Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Useful</td>
<td>6</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helpful</td>
<td>4</td>
<td>11</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>11</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Navigate</td>
<td>7</td>
<td>10</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>3</td>
<td>8</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AV media</td>
<td>4</td>
<td>10</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>1</td>
<td>13</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>18</strong></td>
<td><strong>68</strong></td>
<td><strong>2</strong></td>
<td><strong>20</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

Other comments were: three suggestions for face-to-face sessions (one from a ‘mature-age student who was unfamiliar with…computers’); a comment on the lack of clarity of voices in some videos; and a positive comment that the modules are good to come back to.
**Question 4.** What two things helped you the most when using the health sciences information literacy modules?

The 28 comments from the respondents about what was most helpful when using the modules can be grouped into themes as in table 9. Most noted were the navigational aids and the mention of particular content, followed by examples, exercises, visuals and videos.

**Table 9: What was most helpful**

<table>
<thead>
<tr>
<th>Response type</th>
<th>Number of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navigational aids - side bar, links, search boxes</td>
<td>9</td>
</tr>
<tr>
<td>Particular content - articles and databases including truncation, media articles, books/av, referencing, locating resources</td>
<td>8</td>
</tr>
<tr>
<td>Practical content - examples, exercises guides</td>
<td>5</td>
</tr>
<tr>
<td>Visuals, video</td>
<td>3</td>
</tr>
<tr>
<td>General comment – ‘easy to follow’</td>
<td>1</td>
</tr>
<tr>
<td>Miscellaneous – comments on circumstances</td>
<td>2</td>
</tr>
</tbody>
</table>

**Question 5.** What two things could be improved to make the health sciences information literacy modules easier to use?

The 25 comments from the respondents about what could be improved to make the modules easier to use can be grouped into themes as in table 9. Most noted were the design, layout, structure and content, with suggestions for face-to-face instructions on modules to get started and promotion in classrooms or workshops.

**Table 9: What things could be improved**

<table>
<thead>
<tr>
<th>Response type</th>
<th>Number of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concerns about design, confusing layout, suggestions for structure</td>
<td>10</td>
</tr>
<tr>
<td>Suggestions for content</td>
<td>9</td>
</tr>
<tr>
<td>More/better instructions on how to use modules including suggestion that a face-to-face instructions by librarians would help to get started</td>
<td>2</td>
</tr>
<tr>
<td>Promotion of modules, more promotion in classrooms</td>
<td>2</td>
</tr>
<tr>
<td>Problems with linking to full-text articles (not a module issue)</td>
<td>2</td>
</tr>
</tbody>
</table>
Table 10: Modules - Two things that helped the most (Q2)

<table>
<thead>
<tr>
<th>ID</th>
<th>Comment</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Too rushed to appreciate usefulness</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>How to find book and AV aids</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>Finding items in database, different techniques (truncation etc.)</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>Find media articles and knowing what websites can be used</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>Having done it previously</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>More about different databases to help find relevant resources</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Locating resources</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>Journal articles and databases</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>Way to locate journal articles and access databases</td>
<td>0</td>
</tr>
<tr>
<td>21</td>
<td>Helped with referencing</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Side-bar tutorials</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Highlighted links showing where to click</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Search boxes</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Links</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Links on pages to guide to another topic</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>Left hand column</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>Tabs down left side</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>Search box</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>Side link explaining how to find online journals</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Videos</td>
<td>2</td>
</tr>
<tr>
<td>15</td>
<td>Visuals</td>
<td>2</td>
</tr>
<tr>
<td>20</td>
<td>Video</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>Practice exercises</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>Information page outlining how to use the pages</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>Listing of examples of references, then what they refer to</td>
<td>3</td>
</tr>
<tr>
<td>19</td>
<td>Step-by-step processes</td>
<td>3</td>
</tr>
<tr>
<td>20</td>
<td>Guides</td>
<td>3</td>
</tr>
<tr>
<td>21</td>
<td>Easy to follow</td>
<td>4</td>
</tr>
<tr>
<td>ID</td>
<td>Comment</td>
<td>Code</td>
</tr>
<tr>
<td>----</td>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>3</td>
<td>Time!</td>
<td>Misc</td>
</tr>
<tr>
<td>1</td>
<td>Information on home page is overwhelming</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Easier design</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Make more user friendly; sometimes confusing to find things</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Improved layout to make easier to read; not so cluttered</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Links at top confusing, maybe have all information on one page so it is easier to read through</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Easier design format</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Some sort of login that marks which sections you’ve read/covered</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>Have a heading for peer-reviewed journals in the left hand column; otherwise you have to search internally to find this information</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>Confusing with all different subjects and then search engines</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>On ‘finding credible internet info’, video &amp; notes repetitive</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>End-note module</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>How to use different databases, difference b'twn simple and advanced search</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>Gave up proceeding to find resources because did not know which database to go to for specific topic</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>More info on how to search for things</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>Greater knowledge on where to find related things in the library</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>Better explanation of how to find journals</td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td>Explain more about how to access articles via database</td>
<td>2</td>
</tr>
<tr>
<td>21</td>
<td>More about referencing</td>
<td>2</td>
</tr>
<tr>
<td>21</td>
<td>More about the library; great source, even though I’m young, I’d rather a book than a screen</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Clearer instructions</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>Would be easier if shown how to use, so maybe lectures or facilitators could go thru how to access to make clearer</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Be made aware of them in class</td>
<td>4</td>
</tr>
<tr>
<td>18</td>
<td>Plenty of promotion in classes, not just 1st year</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Some articles couldn't find online e-resource link</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>1 article didn't appear when I attempted to click on the link</td>
<td>5</td>
</tr>
</tbody>
</table>
6. Summary of the Findings and Recommendations

6.1 Activity 1 – Findings and recommendations

Content

Finding: A majority of respondents of this usability testing found the ‘Can’t I just Google?’ video content to be appropriate, useful and relevant.

Recommendation

- Retain use of video in the modules and the concept overall. Investigate further opportunities where videos might be appropriate in the modules.

Finding: Suggestions for improvement related to further guidance with refining searches, more examples, accessing full text and subtitles. (Although in another part of the survey it was suggested that the video be shortened).

Recommendation

- Review content for referral/linkage to appropriate modules for further assistance. Investigate possibility of developing separate multimedia objects on suggested topics if not already available.

Physical Quality of Video

Finding: Respondents were almost equally split on the quality of the video, with some highlighting positives such as: ease of listening, clarity, speed, graphics and visuals. Others reported issues such as: technical problems, speed and clarity of speech and length.

Recommendation

- Review and test technical aspects of the video under a variety of conditions and with diverse populations.

Acting and Animation

Finding: There were two schools of thought on the acting and animation. Some participants responded positively to the acting and animation; commenting on ease of listening, to the point, slow, clear, helpful images, graphics and easy to relate to characters. However there were a few more comments which raised concerns about the use of animated characters, in particular the girl being ‘cold and her tone of voice not friendly’.

Recommendations

- Retain clarity, images, graphics and concept overall. Review use of animated characters in the light of comments and perhaps elicit further feedback from a variety of sources to inform on use of acting and animation.
6.2 Findings and Recommendations Sets 1- 4 by Set and Step

Set 1 – Find the module to help with finding a known journal article citation. Then follow the guidance to get the full text article

Findings – choice of module (Set 1)

1. *The module 'Finding items on a resource list’ is not always recognised as a tool which will help students find a single journal article from a known citation*

   Recommendations – choice of module:
   
   - Retain the module title 'Finding items on a resource list’, however update the module ‘Finding journal articles by topic’ and rename to ‘Finding journal articles’. Split the module into ‘Finding journal articles when you know the citation’ and ‘Finding journal articles by topic’. This creates a duplication of some content but aiming to avoid confusion.
   - Investigate ways of renaming the health sciences modules, so they are not confused with the ‘Health Sciences’ Library subject guides (both listed on the library guides page)

Findings – appropriate pathway (Set 1)

1. *It is beneficial to have internal links to the following page in the modules*

2. *Top tabs are not seen as an obvious pathway through the modules*

   Recommendations 1-2 – appropriate pathway:
   
   - Add internal links to subsequent boxes in all modules, to have a second option in case they miss the tabs.
   - Consider wherever possible to put as much information in a single box, so that student can scroll rather than linking off to another box.
   - First page of “Finding items on a resource list” update the page that shows the list, and rename as “Example of Resource List” more prominently
   - Investigate reducing the amount of text in the modules where possible.

3. *Participants attempted to use the left menu to navigate within the module*

   Recommendations 3 – appropriate pathway:
   
   - Investigate module pathways and review all titles and headings to improve understanding of the pathways.
4. **The finding journal article citation multimedia item is a useful tool**

Recommendations 4 – appropriate pathway:

- Retain and update the journal article citation multimedia item
- Look for more opportunities to add instructional videos where appropriate
- Review all instructional videos for quality

**Findings – journal title level (Set 1)**

1. **Most participants (5 of 6) got to (even if eventually) the journal title level in the Library catalogue, although they didn’t all use the guidance in the modules**

   Recommendations 1 – journal title level:

   - Retain Library website entry point ‘Journal Titles’

**Findings – article full text (Set 1)**

1. **It appears that some students have difficulty interpreting the Library catalogue journal title search result, as shown by participants who did not recognise the difference between the print copy record and electronic record**

   Recommendations 1 – article full text:

   - Investigate the possibility of the journal title search result displaying with the electronic resource record at the top of the list and print copy placed second.
   - Investigate the possibility of replacing the format type from [electronic resource] to online or full text, or even further information to trigger awareness of the fact that the article issues and full text of the articles are available behind the link

2. **Participants, who got to the journal title level in the Library catalogue (5 of 6), did not necessarily successfully achieve access to the full text where available (2 of 6)**

   Recommendations 2 – article full text:

   - Update any screen dumps in the modules to remove the LibXplore search box which seems to create confusion
   - Databases by subject area: investigate removing the check boxes and LibXplore search box
   - Update the Google cartoon to edit out the LibXplore search.
Set 2 - Find the module to help write out a reference in correct APA style, within that module find an appropriate example, and then use that information to write the citation correctly

Findings – choice of module (Set 2)

1. ‘Referencing with APA’ is a recognisable label as being relevant to this type of task

   Recommendations – choice of module:
   - Retain the module title: ‘Referencing with APA’

Findings – appropriate pathway (Set 2)

1. It is beneficial to have in-text links within the boxes as an alternative path to the top tabs

   Recommendations – appropriate pathway:
   - Review placement and links to ‘Examples’ content
   - Review pathways from the main page of this module to improve alternative pathways

2. It is beneficial to have the main Faculty source (a clearly recognisable tool) as a link in a prominent place

   Recommendations – appropriate pathway:
   - Retain in-text link to study skills handbook (Pavlidis, 2009)

Findings – follow guidance to list in APA style (Set 2)

1. Most students found an appropriate example to model via links in the modules and were able to list a citation in at least partly correct APA style

   Recommendations – follow guidance to list in APA style:
   - Review examples for ease of use e.g. journal article example is a supplement; consider replacing
   - Enhance examples by creating boxes around them
   - Provide feedback to author of study skills handbook regarding the nature of participants’ use of this tool
Set 3 – Find the guidance in the modules on finding journal articles on a topic and read or view anything that looks relevant. Follow the guidance you found in activity two, to find 3 journal articles on diabetes via the Library

Findings – choice of module (Set 3)

1. ‘Finding journal articles on a topic’ is a recognisable label as being relevant to this type of task

Recommendations – choice of module:

- Investigate renaming ‘Finding journal articles by topic’ to ‘Finding journal articles’
- Enhance this module and divide into:
  - ‘Finding journal articles when you know the citation’
  - ‘Finding journal articles by topic’.
  - (this creates a duplication of some content but aims to prevent confusion)

Findings – appropriate pathway (Set 3)

1. The pathway through the module was not clear in the case of this particular task which may be due to placement, labels, design or other

Recommendations – appropriate pathway:

- Review or remove use of sub tabs
- Consider putting as much information as possible in a single box so that students can scroll rather than linking off to another box
- Review vital links and pathways in relation to size and clarity
- Investigate use of multimedia objects to enhance clarity of the stepped process
- Reduce module density and text and improve layout

Findings – Follow guidance to select a database (Set 3)

1. Instructions in the modules on choosing and accessing a database did not effectively guide the participants to the selection and use of an appropriate database

Recommendations – Follow guidance to select a database:

- Review guidance in modules relating to selecting & searching databases to find journal articles by topic
- Review the explanation of databases in Libguides
- ‘Journal Articles and Databases’ is noted in the practice exercises, a student used this guidance and got confused with the tab titles on the Library home page. Update this instruction
- Remove LibXplore search box from the screen shot in search databases content
- Consider changing ‘Articles via Databases’ to ‘Journal articles via databases’
**Findings** – Follow guidance to achieve a list of articles (Set 3)

1. *Instructions in the modules to access articles from a Library database did not effectively guide the participants to access a relevant list of articles by searching an appropriate database*

Recommendations – Follow guidance to achieve a list of articles:

- Remove the LibXplore search box on the databases search screen in the Library website
- Review the ‘Can’t I just Google?’ video to remove the section showing the LibXplore search box
Set 4 - Find the module to help determine the credibility of a website and show what they've found by writing down 2 points related to credibility

Findings – choice of module (Set 4)

1. ‘Finding Credible Internet Information’ is a recognisable label as being relevant to this type of task i.e. someone looking for guidance on what criteria to use

Recommendations – choice of module:

• Retain the module title: ‘Finding credible internet information’

Findings – appropriate pathway (Set 4)

1. Both top tabs and links in the first page led participants toward an appropriate path, however navigating to content beyond that appeared problematic. Sub tab information was not utilised on the whole

Recommendations – appropriate pathway:

• Retain the ‘Credibility’ tab and ‘more information on credibility’ link
• Review the use of sub tabs – perhaps putting more content on a page or a link to sub tab content in a clear place
• Redesign the main page to allow for multiple access points to top tabs

Findings – content within the module (Set 4)

1. The content of the credibility criteria information is clear enough for most participants in this testing to read, absorb and note (hence comments above, with visuals and examples seen to be useful)

Recommendations – content within the module:

• Retain the use of: clear explanation, examples and other visuals
6.3 Findings relating to steps - cross set

As each of the sets was analysed to the degree of what action participants took at particular steps, it is useful to look overall at the percentage of achievement relating to the steps, and therefore the point at which the achievement level changed.

**Module choice**

Almost three quarters (71%) of the participants chose the correct module (although in some cases not immediately). This result indicates that on the whole, module labels are appropriate; however there is room for improvement.

<table>
<thead>
<tr>
<th>Correct choices</th>
<th>Set 1</th>
<th>Set 2</th>
<th>Set 3</th>
<th>Set 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 of 6</td>
<td>4 of 5</td>
<td>4 of 5</td>
<td>4 of 5</td>
<td>15 of 21</td>
<td></td>
</tr>
</tbody>
</table>

**Appropriate pathway**

67% of the participants took an appropriate pathway through the modules. This result indicates that the ability to navigate through the modules is satisfactory to a point, but needs major improvement.

<table>
<thead>
<tr>
<th>Appropriate pathway</th>
<th>Set 1</th>
<th>Set 2</th>
<th>Set 3</th>
<th>Set 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 of 6</td>
<td>4 of 5</td>
<td>4 of 5</td>
<td>4 of 5</td>
<td>14 of 21</td>
<td></td>
</tr>
</tbody>
</table>

---

4 I.e. those participants arrived at the place in the modules where the specific guidance was related to the activity. Other pathway aspects such as, lack of use of sub tabs or tabs is not reflected in this figure.
Follow the guidance – part 1
Just over half (57%) of participants appeared to follow the guidance in the modules when looking at their actions after viewing the content. This result indicates that the content and delivery of content is only moderately effective in assisting participants to follow appropriate action in the initial step of a two step task, or the only step of a simpler task.

<table>
<thead>
<tr>
<th></th>
<th>Set 1</th>
<th>Set 2</th>
<th>Set 3</th>
<th>Set 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow the guidance pt 1</td>
<td>2 of 6</td>
<td>4 of 5</td>
<td>3 of 5</td>
<td>3 of 5</td>
<td>12 of 21</td>
</tr>
</tbody>
</table>

Follow guidance - Part 1

Follow the guidance – part 2
In sets where there was an extra step, only 27% of participants, appeared to follow the guidance in the modules. The most dramatic reduction appears in Set 3, where only 1 participant was able to complete the activity successfully. Both sets 1 and 3 were more complex in terms of task than the other sets, with set 3 providing the greater challenge (finding journal articles on a topic). This result indicates that the content and delivery of content when extra steps are involved, are only effective in a small number of cases.

<table>
<thead>
<tr>
<th></th>
<th>Set 1</th>
<th>Set 2</th>
<th>Set 3</th>
<th>Set 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow guidance pt 2</td>
<td>2 of 6</td>
<td>N/A</td>
<td>1 of 5</td>
<td>N/A</td>
<td>3 of 11</td>
</tr>
</tbody>
</table>
6.4 Findings & recommendations – Brief feedback survey

Use of the modules prior to the testing
Finding: A majority (71%) of the participants in the usability testing had used the modules before and 29% had not.

Recommendation:
- Investigate ways to promote the modules further via: workshops, lectures, an LMS discussion board, facilitator training, handouts, business cards or bookmarks etc.

Practice exercises
Finding: The practice exercises are considered to be useful to the participants who stated they had used them (8 of 21, 38%).

Recommendation:
- Consider increasing practice exercises across the modules where relevant, and improving those which exist.

Prior action for activities
Finding: When asked what action would have been taken to do a particular task prior to the testing day for particular activities, responses show that 9 of the 20 respondents to this question (45%) answered that they would have taken appropriate action, with 11 of the 20 respondents (55%) choosing pathways which would not necessarily have led to results.

Recommendation:
- Investigate ways to promote the modules further via: workshops, lectures, an LMS discussion board, facilitator training, handouts, business cards or bookmarks etc.

Comments on the modules - general
Finding: The majority of the general comments were positive. Participants commented positively or very positively (combined comments 78%) about the modules in terms of: usefulness, helpfulness, design, content, AV media (including animated video) and language. Participants commented negatively or very negatively (20% combined) about the modules in terms of: navigation and in part, design.

Recommendation:
- Review the navigation and design aspects across modules.

Comments on what helped most
Finding: Navigational aids, certain content, examples, exercises, visuals and videos are considered to be the aspects that helped the most according to the respondents.

Recommendation:
- Review the modules, retaining aspects which were seen to help: navigational aids, certain content, examples, exercises, visuals and videos

Comments on what things could be improved
Finding: Design, layout, structure, content, suggestions for face-to-face instructions on modules to get started, and promotion in classrooms/workshops were considered to be the aspects that could be improved according to the respondents.

Recommendation:
- Review the aspects of the modules which participants suggested could be improved: design, layout, structure and content.
- Investigate ways to promote the modules further via: workshops, lectures, an LMS discussion board, facilitator training, handouts, business cards or bookmarks etc
6.5 Recommendations grouped by Modules, Library Website and Multimedia items

Recommendations regarding the Modules:

Modules (Activity 1)
- Retain the use of video in the modules and the concept overall. Investigate further opportunities for the appropriate use of video in the modules.
- Review the content for referral and/or linkage to other relevant boxes or modules for further assistance.
- Investigate the possibility of developing separate multimedia objects on suggested topics.
- Review and test technical aspects of the video under a variety of conditions and with diverse populations.
- Retain clarity, images, graphics and concept overall.
- Review the use of animated characters in the light of comments and perhaps elicit further feedback from a variety of sources to inform on use of acting and animation.

Modules (Set 1)
- Retain the module title ‘Finding items on a resource list’, however update the module ‘Finding journal articles by topic’ and rename to ‘Finding journal articles’. Split the module into ‘Finding journal articles when you know the citation’ and ‘Finding journal articles by topic’. This creates a duplication of some content but aims to avoid confusion.
- Investigate ways of renaming the Health Sciences modules, so they are not confused with the ‘Health Sciences’ Library subject guides (both listed on the Library guides page).
- Investigate reducing the amount of text in the modules where possible.
- Add internal links to subsequent boxes in all modules, to have a second option in case they miss the tabs.
- Consolidate information into as few boxes as possible, so that students can scroll rather than linking off to another box.
- First page of ‘Finding items on a resource list’ update the page that shows the list, and rename as ‘Example of Resource List’ more prominently.
- Investigate module pathways and review all titles and headings to improve understanding of the pathways.
- Update any screen dumps in the modules to remove the LibXplore search box which seems to create confusion.

Modules (Set 2)
- Retain the module title ‘Referencing with APA’.
- Retain link to the Study Skills Handbook.
- Provide feedback to the author of Study Skills Handbook regarding the nature of the participants’ use of this tool.
- Review placement and links to the ‘Examples’ content.
- Review pathways from main page of this module to improve alternative pathways.
- Review examples for ease of use e.g. journal article example is a supplement, consider replacing.
- Enhance examples by creating boxes around them.
Modules (Set 3)
- Investigate renaming ‘Finding journal articles by topic’ to ‘Finding journal articles’
- Retain and enhance this module and divide into:
  - ‘Finding journal articles when you know the citation’
  - ‘Finding journal articles by topic’
- Review or remove the use of sub tabs
- Consolidate information into as few boxes as possible, so that students can scroll rather than linking off to another box.
- Review vital links and pathways in relation to size and clarity
- Reduce module density and text and improve layout
- Review guidance in modules relating to selecting & searching databases to find journal articles by topic
- Review explanation of the databases in Libguides
- ‘Journal Articles and Databases’ is noted in the practice exercises, 1 student used this tab and got confused with the tab titles on the Library home page. Update this tab
- Remove the LibXplore search box from the screen shot in ‘search databases’ content

Modules (Set 4)
- Retain the module title ‘Finding credible internet information’
- Retain the ‘Credibility’ tab and ‘more information on credibility’ link
- Review the use of sub tabs – perhaps putting more content on a page or a link to sub tab content in a clear place
- Redesign the main page to allow for multiple access points to top tabs
- Retain the use of: clear explanation; examples & other visuals

Modules (Brief feedback survey)
- Investigate ways to promote the modules further via: workshops, lectures, an LMS discussion board, facilitator training, handouts, business cards or bookmarks etc.
- Consider increasing practice exercises across the modules where relevant, and improving those which exist
- Review the navigation and design aspects across all modules
- Review the modules for aspects which were considered needing improvement: design, layout, structure and content
- Review the modules, retaining aspects which were seen to help: navigational aids, certain content, examples, exercises, visuals and videos

Modules (overall)
- Review all the modules (not just those in this usability testing) to apply recommendations where relevant

Recommendations regarding Multimedia items:

Multimedia items (Set 1)
- Retain and update the journal article citation multimedia item
- Look for more opportunities to add instructional videos where appropriate
- Review all instructional videos for quality
- Update the Google cartoon to edit out the LibXplore search box.
Multimedia items (Set 3)
- Investigate the use of multimedia objects to enhance clarity of the stepped process
- Review ‘Can’t I just Google?’ video to remove section showing LibXplore search box

Multimedia items (overall)
- Review all the multimedia items in the modules (not just those in this usability testing) to apply recommendations where relevant
- Look for more opportunities to add instructional videos where appropriate

Recommendations regarding the Library Website:

Library Website (Set 1)
- Retain the Library website entry point ‘Journal Titles’
- Investigate the possibility of the journal title search result displaying with the electronic resource record at the top of the list and print copy placed second
- Investigate the possibility of replacing the format type from [electronic resource] to online or full text, or even further information to trigger awareness of the fact that the article issues and full text of the articles are available behind the link
- Databases by subject area: investigate removing the check boxes and LibXplore search box

Library Website (Set 3)
- Consider changing ‘Articles via Databases’ to ‘Journal articles via databases’
- Remove the LibXplore search box on the databases search screen in the Library website

6.6 Overall Findings

71% participants chose the correct module, although in some cases not immediately. This result indicates that on the whole, module labels are appropriate however there is room for improvement. 67% of participants took an appropriate pathway through the modules, this indicates that the ability to navigate through the modules is satisfactory to a point but needs major improvement. 57% of participants appeared to follow the guidance in the modules, which indicates that the content and delivery of content is only moderately effective in assisting participants to follow appropriate action in the initial step of a two step task. Where there was an extra step or more complex task, only 27% of participants appeared able to follow the guidance in the modules to complete the task.

Top tabs and sub tabs were not always seen as an obvious pathway through the modules, and this was a common finding across all sets. A positive finding indicated it was beneficial to have internal links to the following page within the modules (this feature was not common throughout all of the modules). Participants commented on the usefulness and relevancy of visuals and multimedia video content across all sets. Another important finding showed that the instructions in the modules on choosing and accessing a database did not effectively guide the participants to the selection and use of an appropriate database, and eventually lead the participants to access a relevant list of articles.
7. Conclusion

It has been essential to ensure that first year health sciences students have access to the Library's resources, and, to maximise efficiency in their information seeking activities, have the highest quality training modules to guide them. The modules were developed in collaboration with the Health Sciences Faculty staff and by the cross campus faculty librarians. The modules include guidance on library research skills pertaining to their task assessments in their enquiries for the first year of study.

Usability testing of the modules was carried out, as a critical step in the ongoing quality improvement process for promotion of information literacy online training and guidance. It was imperative to conduct this testing to ensure that the modules remain effective and efficient for this cohort in the online environment. To add to the complexity, testing was performed on four of the modules, thereby requiring four discrete testing sets. Within each set consideration was applied to three important themes: finding the correct module, finding an appropriate pathway within the module, and following the guidance in the module to complete the task. Frequency and severity of issues identified within each testing set were analysed to assist in prioritising recommendations for improvement, as well as highlighting what worked well within the modules.

Ideas gleaned from the current literature were crucial to success, and these included: attention to the wording and development of the tasks and questions; structuring the tasks to ensure testing of the modules, and not the participants’ research skills; highlight not only the ease of use of the website, but the usefulness as well (Vaughn and Callicot, 2004); using a small sample size for user testing; and enabling the participant to undertake the testing without librarians present in the room (Benjes and Brown, 2000). Camtasia video and audio recording was used to facilitate this process.

The findings and recommendations were initially grouped by testing set, then to assist the improvement process, amalgamated and grouped according to the modules, multimedia items and the Library website. This experience with task-based usability testing has been instrumental in providing further enhancement and improvement to the information literacy modules, and encouraged by the success of this testing, further plans are underway to repeat this testing in 2010.

8. Acknowledgements

Sincere appreciation to the Health Sciences Library Evaluation Working Group members; the Health Sciences Faculty Librarians at all campuses; the Library Web Coordinator Anthony Flack; other expert Library staff who have assisted in this project; and the CTLC (Curriculum Teaching & Learning Centre).
9. References


Pavlidis, M. (2009). Target your skills: optimise your learning. Online handbook, La Trobe University, Faculty of Health Sciences.

10. Appendix 1 – Usability Testing Documents

This appendix includes the student guidelines/instruction sheet - common to all four sets; the four separate testing documents; and the brief feedback survey, also common to all four sets.

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Health Sciences Information Literacy Modules
Usability Feedback (Common to all four sets)

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Student guidelines/instructions

Thankyou for participating in this usability feedback. The purpose of this feedback is to find out how we can improve our tutorials and services in the future.

It is not in any way a test of your knowledge or skills. It is an evaluation of the modules.

The results will remain anonymous

What will occur?
The staff member will turn on the Camtasia recorder and leave you to do the activities Your screen movements and comments will be recorded.

Please vocalise what you are thinking as much as possible continuously – commenting on your actions, even any frustrations.

Please scroll and mouse and click as freely as you wish. The recording won’t be affected.

After 15 minutes the staff member will return and give you a brief feedback survey which should take approximately 5 minutes.

You can alert the library staff member if you finish before the 15 minutes is up.
Your screen is at the Health Sciences Information Literacy Modules homepage which is: http://latrobe.libguides.com/health_sci

There are three activities. Please do them in order.

**ACTIVITY ONE**
1. Go to the left menu and click on “Can’t I just Google”
2. View the video. It will start automatically & take 3 mins. Rewind if you need to.
3. What works well with this video?
4. What could be improved with this video?

**ACTIVITY TWO**
You have been given this citation as an item on your resource list:


Find the instructions for searching the library collection for this item

**ACTIVITY THREE**
Read or view the information in the instructions, you found in activity two, then locate the item in the library & get the full text up on the screen.

Reminder: this is not a test. Please vocalise your thoughts, including any issues. Alert the staff member when you feel you have done the activities

Staff to fill in: Date: ___________ Number: _____ Campus: ______________

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Your screen is at the Health Sciences Information Literacy Modules homepage which is: http://latrobe.libguides.com/health_sci

There are three activities. Please do them in order.

**ACTIVITY ONE**
1. Go to the left menu and click on “Can’t I just Google”
2. View the video. It will start automatically & will take 3 mins. Rewind if need to.
3. What works well with this video?
4. What could be improved with this video?

**ACTIVITY TWO**
You have found this book:

Politics and budgeting in the World Health Organization by Francis W. Hoole. Published in Bloomington by Indiana University Press, 1976.

You want to use this in your assignment, you know you need to cite it in APA style but you are not sure how to do this.

Find the page in the modules with the guide to this style.

**ACTIVITY THREE**
Write down the citation for the above book in APA style (underline any words that should be in italics)

___________________________________________________________________________
___________________________________________________________________________

Reminder: this is not a test. Please vocalise your thoughts, including any issues. Alert the staff member when you feel you have done the activities

Staff to fill in: Date: __________ Number: ___ Campus: ____________
Your screen is at the Health Sciences Information Literacy Modules homepage which is: http://latrobe.libguides.com/health_sci

There are three activities. Please do them in order.

ACTIVITY ONE
1. Go to the left menu and click on “Can’t I just Google”
2. View the video. It will start automatically & will take 3 mins. Rewind if need to.
3. What works well with this video?
4. What could be improved with this video?

ACTIVITY TWO
Find the guidance in the modules on finding journal articles on a topic and read or view anything that looks relevant.

ACTIVITY THREE
Follow the guidance you found in activity two, to find 3 journal articles on diabetes via the library.

Activity three is completed when you have found three relevant journal articles listed. You do not need to view the full text of the articles.

Reminder: this is not a test. Please vocalise your thoughts, including any issues. Alert the staff member when you feel you have done the activities.

Staff to fill in: Date: __________ Number: ___ Campus: ____________
Health Sciences Information Literacy Modules
Usability Feedback: Set 4

Your screen is at the Health Sciences Information Literacy Modules homepage which is: http://latrobe.libguides.com/health_sci

There are three activities. Please do them in order.

**ACTIVITY ONE**
1. Go to the left menu and click on “Can’t I just Google”
2. View the video. It will start automatically & will take 3 mins. Rewind if need to.
3. What works well with this video?
4. What could be improved with this video?

**ACTIVITY TWO**

You have found a website that you think would be useful for your academic assignment. You need to determine if this website is credible.

Go to any module/s that might give you advice on that

Which module/s did you view?

**ACTIVITY THREE**

Using the content of the module/s write down 2 points relating to judging the credibility of websites.

Reminder: this is not a test. Please vocalise your thoughts, including any issues. Alert the staff member when you feel you have done the activities.

Staff to fill in: Date: __________ Number: ___ Campus: __________
1. Have you used the health sciences information literacy modules before today?  
   Yes ☐ No ☐ Go to 2.

If yes, Have you used the practice exercises? Yes ☐ No ☐ Go to 2.

If yes, How useful were they?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

2. Before today, how would you have found a specifically listed journal article from a reading or resource list, in the library?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

3. Please comment on any aspects of using the health sciences information literacy modules?
   E.g. usefulness _____________________________________________________
       helpfulness _____________________________________________________
       design _________________________________________________________
       navigation _____________________________________________________
       content _________________________________________________________
       multimedia (video/audio) _________________________________________
       language _______________________________________________________
       other? _________________________________________________________

4. What two things helped you the most when using the health sciences information literacy modules?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

5. What two things could be improved to make the health sciences information literacy modules easier to use?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

*Please use other side of page if you need more space, Thankyou.*

Staff to fill in: Date: ******** Number: _____ Campus: ********