

# University of Otago Library

## Subject Guide Evaluation: User Testing Report

### I. Introduction

The investigators (the Subject Guide Governance Group Librarians) wanted to know whether the 'subject guide' concept was clear to users. The Library Subject Guides are intended to:

- Serve as a starting point for locating resources for student coursework or research
- Be selective as opposed to comprehensive; to present the key resources for each subject
- Promote useful Library information services, including the role of the Liaison Librarian

The investigators also wanted to explore students' perceptions of the look and feel of the guides—did the content headings and names of pages and boxes make sense? Was any terminology confusing? Was the amount and level of information appropriate?

### II. Methodology

Investigators conducted one-on-one semi-structured interviews with a total of twelve undergraduate students, each of whom simultaneously viewed a Subject Guide of their choice. The goal of the interviews was to explore usability: to find out whether the Guides' intended purpose is borne out by users' perceptions, and whether their design and content is understandable and useful. Web usability testing like this is typically done with a small number of participants, as "four or five participants should be enough to identify about 80% of the problems."<sup>1</sup> This report includes quotations from testers to help illustrate findings.

Interviews were based on a script (see Appendix I) to elicit feedback on the usefulness and effectiveness of the Subject Guides. Testers were given a scenario to prompt them to begin navigating the guide. When necessary, the investigators also prompted users to view specific pages, so that each tester explored all four pages common to each Guide: Home, Find Books, Find Articles, and Writing & Citing. Testers were asked to think aloud about what they were looking at and what they thought. The conversations and screen clicks were recorded. The Librarians observed and recorded what the testers did not notice about the guides, as well as what they did. They took notes and asked questions as necessary. At the end of the interviews, the Librarians wrote up session notes for each tester, using the recordings (and screen click patterns where necessary) to document testers' responses.

The investigators were guided by Steve Krug's books *Don't Make Me Think: A Common Sense Approach to Web Usability*, 2<sup>nd</sup> ed., 2006, and *Rocket Surgery Made Easy: the Do-It-Yourself to Finding and Fixing Usability*, 2010.<sup>2</sup> They took the approach of "get it" testing, rather than key task

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<sup>1</sup> Ward, J. L. and Hiller, S. (2005). Usability testing, interface design and portals. *Journal of Library Administration* 43(1/2), 158.

<sup>2</sup> Krug, S. (2010). *Rocket surgery made easy: The do-it-yourself guide to finding and fixing usability*. Berkeley: New Riders Publishing; and Krug, S. (2006). *Don't make me think! : A common sense approach to web usability*. 2<sup>nd</sup> ed. Berkeley: New Riders Publishing.

testing, which is typical in web usability studies. The questions informing this approach were: Do users understand the purpose of Subject Guides—do they “get it”— and do they understand how they are organised and how they work? Usability testing aims to identify major problems that can be fixed with a minimum of effort.

### **III. Limitations of the Study**

The testing conducted here had limitations. First, usability testing is usually applied during an iterative product design process, and not after the fact of the product’s being established. This meant the investigators could not go back to the drawing board and fully reconceive the plan for the Guides. Second, investigators’ ability to address problems raised by testers may be limited by the architecture of LibGuides or internal resource constraints. Third, the investigators are not expert analysts. While every effort was made to accurately record and interpret testers’ responses, those responses did not undergo formal content analysis, as is common in qualitative research. The data were used to draw out general themes regarding the Guides’ design and function that could be readily addressed.

The investigators believe the positive aspects of this study outweigh the limitations. It was inexpensive, easy, and involved direct interaction with Library users. The goal of usability testing is to make the design process more user-centred, and we accomplished that. User experience should inform the improvement of Subject Guides by making “small tweaks that enhance use.”<sup>3</sup>

### **IV. Student Tester Information**

The investigators applied for and were granted Human Ethics (Category B) approval. Twelve undergraduate student testers were recruited via posters in the Libraries and in major lecture theatres. A \$15 credit was added to the volunteers’ campus printing accounts after they completed their interviews, which lasted from one-half hour to one hour. The testing was conducted during September 2012.

Respondents were asked some background questions before the testing:

(a) “What year of study are you in and what is the main subject you are studying?” Testers subsequently selected the Subject Guide most relevant to their major, most of which have names matching that major):

- 1<sup>st</sup> year: Food Innovation (viewed Food Science Subject Guide)
- 2<sup>nd</sup> year: Accounting, Botany, Genetics (viewed Microbiology Subject Guide), Human Nutrition
- 3<sup>rd</sup> year: Education, Medicine, Microbiology, Molecular Biotechnology (viewed Biochemistry Subject Guide), Physiotherapy
- 4<sup>th</sup> year: Pharmacy (2)

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<sup>3</sup> Ward, J. L. and Hiller, S. (2005). Usability testing, interface design and portals. *Journal of Library Administration* 43(1/2), 158.

(b) “How often do you use the University of Otago Library web site?”

- Daily: 5 responses
- Weekly: 4
- Occasionally: 1
- Rarely: 0
- Never: 0
- More than once per week, but less than daily: 2

(c) “Have you ever used one of the Library’s Subject Guides?”

- Yes: 6 responses

If Yes, how did you find out about Subject Guides? Library session (3); Friend (2); Library web site search (1)

- No: 6

## V. Script Elements and Tester Responses: Summaries and Discussion

1. Testers were first asked to look at items listed alphabetically under the Research column on the Library web site as it appeared in September 2012 (see Appendix II); it was redesigned in January 2013: “Which items do you think would be the most helpful if you needed to find relevant information for an assignment or project?” There was no limit on the number of items testers could select.

Article Databases (selected by 7 testers)

Citation Styles (7)

Catalogue (5)

E-journals & E-books (5)

Subject Guides (4)

Exam papers (1)—visible only by clicking “More”

Google Scholar (1)—visible only by clicking “More”

Group Room Bookings (1)—visible only by clicking “More”

Student Learning Centre (1)—visible only by clicking “More”

Summon (1)—not in Research column

This question aimed to determine whether testers regarded Subject Guides as a useful starting point for information searching. Most testers chose Article Databases and Citation Styles; each was selected by seven participants. Four of the twelve testers included Subject Guides in their choices; however, this is fewer than the six who indicated prior use of Subject Guides. Prior use, then, is not a good indicator of how helpful the Guides might be subsequently perceived.

Some testers examined the list from top to bottom, i.e. alphabetically, and commented whether each item would be helpful or not. If items on the Library web site continue to be listed alphabetically, students habitually taking this approach when searching for information may

overlook useful items if they discover something else first. Other testers chose only items that seemed particularly helpful, regardless of what order they were in. Few testers clicked the “More...” link to reveal additional items in the Research column. One tester indicated they wouldn’t usually use the resources under Research, but would instead go straight to Summon at the top of the Library home page.

2. “What about the Subject Guides link under Research? What does the name ‘Subject Guides’ suggest to you?”

Respondents had almost equally divided perceptions of the name ‘Subject Guides’. Five of the respondents’ perceptions appeared to match the Library’s intended purpose of the Subject Guides, which is to provide key information resources for subjects taught on campus. Their responses included, “suggestions for resources; pointers to where you might find information,” “tips for how to find information on a subject” and “would suggest whatever is relevant to my subject.” Two of those five had no prior experience of the subject guides. One tester was not asked this question.

Six testers expressed uncertainty about what ‘Subject Guide’ meant. Three said that the term was unclear: “confusing,” “not that clear,” and “not specific...I wouldn’t know what to do with it.” Three other testers had more ambiguous perceptions: “information on a subject,” “learning aids” and “leads me to a particular subject I want.” Two of these students, each with prior experience of the Subject Guides, indicated that the word ‘subject’ is more specific than ‘course,’ so they would expect a subject guide to be based around a paper or specific area of study such as French or Anatomy. These testers were enrolled in professional health sciences courses that had Subject Guides named to match the course (Physiotherapy and Pharmacy).

Only one tester suggested a different name, which was Course Guides. Library research literature shows that the names ‘subject guides’ and ‘research guides’ are most commonly used to describe this kind of resource.<sup>4</sup> However, user-centred evaluation of subject guides indicates that discipline-based guides require “relevant labelling and easy access points” to ensure that students use them.<sup>5</sup> One particular Library study asked students to recommend alternate names for subject guides, and they proposed names with practical wording that matches what the guides do, not what they are: “Beginning Research Page,” “Where to Start,” “Getting Started” and “Researching? Start Here.”<sup>6</sup> It may be worth considering alternate names to Subject Guides, or at least adding descriptive information about what they are for.

Testers’ consideration of layout and design showed strong reaction to photographs. Half of the respondents considered the photos in the Welcome boxes to be wasteful of space, unnecessary or distracting. Four testers also found the photos of the Liaison Librarians unnecessary or distracting.

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<sup>4</sup> Morris, S. E. and Del Bosque, D. (2010). Forgotten resources: Subject Guides in an era of Web 2.0. *Technical Services Quarterly*, 27(2), 187.

<sup>5</sup> Reeb, B. and Gibbons, S. L. (2004). Students, librarians, and subject guides: Improving a poor rate of return. *portal: Libraries and the Academy*, 4(1), 127.

<sup>6</sup> Ibid.

This reaction contradicts some librarians' belief that the visual appeal of the guides is enhanced by photos. Concern for irrelevant photos reappeared in further testing, with participants commenting that photos could be useful only if they helped describe or explain content.

The other major layout and design concern was the visibility of the tabs. Five testers didn't notice the tabs until they had looked at the page a while; two of these testers didn't notice them until the librarian pointed them out. One of these testers said "I feel kind of lost...is there something I am supposed to do now?" before she realised there was more content to the guide than just the Home page. Two testers suggested that the tabs be bigger or bolder. These responses suggest that tabs should be altered to enhance their visibility.

As for the names of the tabs, four of the testers said the tabs were relevant or useful; one with no prior use said they "sum up everything you need."

Two testers expressed confusion about the relationship between the tabs and the Quicklinks in the left column of the page—one said they'd prefer to use these links to navigate the guide; the other expected that the tabs and links would lead to the same resources. One tester was unsure what two of the tab headings meant and what type of information those pages presented. This concern reappeared for other users later in the testing.

3. Next, testers were asked to examine their guides and imagine the following scenario: "You have been asked by your lecturer or tutor to find outside resources for a particular project or assignment." They were asked, "What would you click on first? Why did you pick this page?" "What do you think of the way the page looks?" "Which thing on this page would you want to click on first?" "Does anything else on this page look useful?"

This question aimed to elicit the pages and types of information perceived as most useful for a typical undergraduate research task of finding academic literature. Seven testers selected the Find Articles tab. Previous studies have demonstrated similar results, that students use subject guides primarily to find articles.<sup>7</sup> This makes sense, in that articles are likely to be the predominant 'outside resource' in academic training. The other five made different choices: One selected Find Books and another (a Pharmacy student) chose Drug Information (from the Pharmacy Subject Guide). One tester said they would avoid the Subject Guide and go directly to Google Scholar and another would do the same in favour of Summon. Another student clicked back to the Library home page, clicked on Article Databases, and selected a familiar database by that route. These three testers were subsequently prompted to select a Subject Guide tab, and each chose Find Articles.

When asked what item on the selected page they would click first, half of the testers mentioned familiar resources. One tester said there were "lots of interesting things" on the page, but she wasn't sure what to click on first, so she chose a database she had heard of before. Further usability or behaviour studies could pursue how to motivate students to explore resources that would be useful but were unfamiliar. Research on undergraduates' information seeking habits overwhelmingly

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<sup>7</sup> Staley, S. (2007). Academic subject guides: A case study of use at San Jose State University. *College & Research Libraries* 68(2), 119-139; and, Ouellette, D. (2011). Subject guides in academic libraries: A user-centred study of uses and perceptions. *The Canadian Journal of Information and Library Science* 35(4), 436-451.

demonstrates that they have a simplistic approach to online research and typically choose resources that are familiar, easy to find and easy to use.<sup>8</sup>

Three testers looking at Find Articles pages misunderstood Article Linker (in the box titled, What Is Article Linker?), perceiving it to be a separate resource that could be searched. Three of the Find Articles viewers also indicated there was “too much information” or “too much going on” on the page. Several testers mentioned improving layout in general to emphasise key resources, indicating that their visual focus naturally goes to the middle of the page. Several testers also mentioned font sizes being too small, especially for database links.

The tester who initially chose Summon for this scenario and was then prompted to select a tab made a suggestion for increasing the use of Subject Guides. She suggested that Summon have a ‘pop-up’ mechanism that pointed to additional ways to search for materials, which would include Subject Guides. She explained her reluctance to use a different search method by saying, “It kind of needs to be in your way and this is just so out of my way.”

Responses to this question suggest that students don’t see the value proposition of the Subject Guides. A value proposition communicates how a product or service benefits the customer by offering more value than what they are currently using or doing. In making choices about information resources and searching, students are driven by availability, familiarity, and ease of use—all elements that help save time. If Subject Guides are harder for students to find and use, then what would make them worth using?

4. Testers were then asked whether additional pages appealed: “Are there any other pages/tabs you would consider looking at?”

For their second choice of most useful page, several testers expressed confusion caused by ambiguous tab labels. Specific examples were Web Sites and NZ Resources. On these pages, testers expected to find articles or at least specific information resources, not just links to sites that require further searching. Find More Research was an ambiguous label for two testers; the problem was confusion about “the difference between the research and the articles.” The same was true for tabs labelled Additional Resources. This shows that the terms ‘research’, ‘resources’, and ‘articles’ may not have distinct meanings to undergraduates.

A tester looking at Writing & Citing on the Human Nutrition guide reported that information on writing for assignments and reports was provided in class, so it wasn’t necessary to have information related to that on the page.

As before, one tester suggested removing pictures that don’t “make sense” and also putting important boxes at the top of the page “so you don’t have to scroll.” Testers looking at Drug

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<sup>8</sup> See, for example, Rowlands, I., & Nicholas, D. (2008). *Information behaviour of the researcher of the future. A CIBER Briefing Paper*. Commissioned by British Library & Joint Information Systems Committee. Centre for Information Behaviour & the Evaluation of Research (CIBER), University College London.

Information tabs liked seeing books with specific types of information. One tester looking at Find Books reported that she “wouldn’t read books online.” Overall, three testers expressed difficulty knowing which boxes on a page would be most helpful, with one saying “it’s quicker to search Google than go to the Subject Guide.” One tester looking at a Find More Resources tab remarked that “students like me need to know this stuff is available” but that it was “too hidden away for students to find it.” Responses to this and the previous question underscore the importance of easy access points to the Subject Guides.

5. To make their third choices, testers were prompted by the Librarian to look at one of the three core pages (Find Articles, Find Books, and Writing & Citing) if they hadn’t yet.

A 2<sup>nd</sup>-year tester who was prompted to view Find Articles had a mixed reaction to it. He wanted to be able to do a single search across Library databases, but found Summon confusing as the results often led to Article Linker. He said he “can’t understand what [Article Linker] is” so Summon is “a waste of time.” As he examined the list of databases, he said it would be better to have a way to search specifically for journals in his field. After it was explained to him that this was the function of article databases, he added that the Library needs “to market these and explain how they are different.”

Two testers chose Find Books. One clicked on an e-book link which connected to the item’s Catalogue record. She overlooked the red *Electronic Resource* arrow in the record and didn’t understand how to click through to the e-book. She suggested that other students may not use these e-books because they don’t know they are there [on the Subject Guide] and that “it would be good to know” about their availability.

Five testers selected Writing & Citing. Two said that their Department provided reference templates or style information, so they wouldn’t need general information on citation styles. Two users said there was too much information on the page, with one adding that she just doesn’t need this information for her assignments. However, another tester said students get confused about the different styles, and he appreciated information on what a citation style is. This tester also liked the information about scientific writing on this page. He indicated there was “quite a jump” from first year to writing up lab reports, and these resources would have been useful. He was confused why “they didn’t tell us this was here,” meaning lecturers or other teaching staff.

A tester who chose Find More Research commented, “I have no idea what this would have but I’d give it a chance to find more articles.” Her expectation was that on this page “there would be more information to search,” meaning specific resources. After examining the page more fully, she said “now it makes sense—gives me the idea that these [theses and dissertations] might be good” and that she welcomes “suggestions for good resources.”

One tester chose Other Media, and said the page could be appealing but they didn’t know what “other media” meant. However the tester liked the podcasts, and suggested that “audiovisual resources” would be a better label. The tester’s Department has a Facebook page and they suggested that the page be linked there for next year’s students, as “all these things are somehow useful.”

6. For their fourth choice, testers were again prompted by the Librarian to look at one of the three core pages (Find Articles, Find Books, and Writing & Citing) if they hadn't yet.

One tester chose Find Books and remarked that she liked the e-books, since she preferred to study at home. She tried unsuccessfully to click on the box title Electronic Books, as she expected to get a full list of titles that way. When told that she could search Summon for e-books, she suggested boxes to tick within Summon to narrow one's search to e-books.

Three more testers were prompted to look at Find Books, with mixed reactions. One tester who said he didn't use books because articles were more current and detailed was surprised to see online handbooks and said they were "cool—are there more?" He would like to see the books' covers and backs, as he generally looks at the New Arrivals in the Library [Science] and likes being able to see the whole book. He suggested that staff link to this page in their course info sheets, and that it would be "cool to have this be more of a wiki so people could add [to it]," meaning users other than just library staff. The second prompted tester was confused by the separation of e-books and print, as he didn't understand what "print" meant. The third prompted tester said there was too much information on the page; if she wanted a book she wouldn't come to this page. She did, however, like the New Books alert as she also frequently visited the New Arrivals display in the Library [Robertson].

Two testers selected Writing & Citing. Both wanted more online support for citation styles, including a citation generator. One mentioned that information on plagiarism and ethical use of information was covered in class and not needed here. One mentioned that the link to the Student Learning Centre might be helpful. The other mentioned she wouldn't go there or to the Library, preferring to get help online. The tester who was a third-year had heard of EndNote but never used it, saying it would be more useful next year.

One tester was prompted to select Find Articles. As a first-year student she mainly relied on textbooks, because that was all she needed. She said she was overwhelmed by the idea of articles because "there are so many of them" and would want a tool that could "do all the [searching] work" for her.

The tester studying Medicine selected MD Consult because they had heard it recommended. Another tester was prompted to view Find More Publications and asked what the name meant to her. She responded, "other than articles and books" and said the page may be helpful eventually, as she may pursue a Master's and would need to find theses.

One 4th-year tester chose the Research tab, but had to ask the Librarian where she would go to find journals or reports. The Librarian asked her to look at the tabs again to see which one might be a better choice for finding articles and reports, but the tester still thought it would be the Research tab. The Librarian directed her to Find Articles. There, she saw the list of article databases but was hoping to find individual articles.

Another tester selected Websites, but said they were "not sure what was in here...there should be a little description." The remaining tester chose Find Websites, saying the title was attractive as she would usually use Google or YouTube. She said the content was interesting but too hidden away.



#### 7. Further clicks—5<sup>th</sup> choice

At the opportunity to choose a fifth page, six of the twelve testers continued and six of them finished examining the Subject Guide. The main point that emerged here was confusion about the purpose and content of the Websites and Other Media tabs. Two users indicated that the tabs have pop-ups activated by hovering that provide descriptions; one said “[I] don’t want to waste my time” examining pages. One tester of Websites liked that there were NZ statistics on the page. The tester who viewed Other Media really liked the descriptive pop-ups over the links to resources in the Images box [Pharmacy Subject Guide]. Another user of the Pharmacy guide was prompted to look at Find Books. She was confused about the overlapping content of that page with the Drug Info and Clinical Info pages; also, she didn’t understand the difference between Drug Info and Clinical Info.

#### 8. Further clicks—6<sup>th</sup> choice

Five testers continued on, with four being prompted to view additional pages. One tester prompted to view Find Books preferred Summon and made a general comment that some of the guide’s pages were too crowded, including saying that users could “lose track” if having to read long sentences. One tester was prompted to look at a page labelled Articles. He had avoided it thus far because he “didn’t know what articles were in there;” he presumed the page contained a selection of articles. After examining the page, this tester suggested calling it Article Databases. One tester had avoided the Writing & Citing tab because she didn’t understand what the label meant; and another had avoided Find More Research for the same reason.

#### 9. Further clicks—7<sup>th</sup> choice

Four testers chose one more page before concluding. One tester who was prompted to look at Find Books said he prefers to just go to the Library Catalogue and wouldn’t bother going into a Subject Guide. A tester viewing Other Media said she didn’t find this tab relevant and wouldn’t use it, as she had “no time to go through all these things.”

10. After their Guide examination concluded, the investigators asked testers what they would do after they had viewed the Subject Guide but hadn’t found what they were seeking:  
“What would you do if you still couldn’t find what you needed?”

This question pursued whether testers perceived the Liaison Librarians featured on each Guide as resources for help with research-related challenges. Ten testers were asked and most responded with multiple strategies; only four of them mentioned the Liaison Librarian. Three said they would ask the Liaison Librarian, with one saying, “I would email you. That’s who it says to contact.” One added that the Liaison Librarian’s contact details were enough, that the photo was “too big and the font too small...it is distracting.” An additional tester mentioned they would contact the Liaison Librarian if their lecturer were unavailable. Three testers indicated they’d ask Library staff; two would ask staff in the Department; three would ask friends or others in class; two would use Google Scholar and one, “basic search in Google.” One mentioned they would use “one of those interloan links,” and another said they would use the Subject Guide’s search box at the top of the page.

Responses to this question indicated that Liaison Librarians don’t feature prominently in most students’ minds as sources of research-related assistance. Responses involving Google, Google Scholar, and interloan suggest that finding articles is a predominant research challenge.

11. All twelve testers were asked how the Library could improve the Guides and make them more useful. Responses fell into three categories:

#### Design and layout:

- Make each guide's banner distinct so it's clear the information on the guide is "specific to you;" use a subject-related photo to distinguish banners
- Box layout makes it hard to find things easily
- Fewer main tabs with more subdivision within them—didn't like everything on one page
- Make tabs bigger
- Font should be bigger and title of page should stand out more; the layout of each page is the same and "you might not realise what page you are in;"
- Subject Guide design is "too simple...old school stuff" compared to University web site
- Picture on home page too big
- Put "all the academic important stuff" in the middle column
- Put "important stuff" [resources] on the homepage; could be under a heading called "Most Popular"

#### Content:

- Lots of cross-coverage with what's on the Library homepage, e.g. the Library Catalogue, "writing and citing stuff;" "if I've found it in one place I won't search 10 different ones"
- Usefulness questioned since tester "can just Summon stuff"
- State on the front page of the guide what students can get from it
- "People go to the Library web site for set resources" and not just to browse—the guide should meet specific needs and not be crowded with nice-to-know information
- Put links to each paper with recommended articles to read
- Guides need "a few basic instructions on how to use the webpage"—e.g. "click on the tabs above"
- Add content for Find "something for an assignment"
- Don't need a poll to rate the guide—wouldn't use

#### Awareness and promotion:

- There are "so many things out there," that students "tend to go to what they routinely go to;" people think of the Library as where to get a book but "wouldn't have thought there were so many resources as well." Make the guides more obvious; posters in the Library.
- Talk to the class and/or instructors; "I always use what they say first"
- Tell students "in a lab session"
- "Very useful particularly if students know about it earlier"
- Link the Subject Guide to the Department web site

12. Before ending the interview, testers were asked if they had any questions or additional comments.

There were no questions for the Librarians. One tester mentioned that of the guide they viewed, the only heading that didn't make sense was Find More Research [Microbiology & Immunology guide]. This same tester added, "I am really surprised how much information this web site has."

## **VI. Major Findings**

### **Design and Layout**

Half of the testers did not see the relevance of some of the images and photographs in the Guides and considered them unnecessary or distracting, particularly those in the Welcome boxes. Some testers found the photos in the Liaison Librarian profiles too big or unnecessary. Testers indicated that in general photographs would be useful only if they helped describe or explain content. Several commented that images of the covers of e-books were helpful.

Most testers commented that the font size for item descriptions and the Guide titles was too small, and some said the box structure made it hard to find things easily. Some testers found the amount of information overwhelming and suggested that the Guides emphasize key resources by placing them on the Home page, or at least in the middle of the page they were on.

Several testers were slow to notice the tabs or did so only after they were pointed out by the Librarian; some suggested that the tabs be made bigger. Some testers found the tab structure unintuitive; for example, expecting the tabs to correlate to the Quicklinks.

### **Content**

Testers had divided perceptions about what Subject Guides were and what they might offer. Testers found several tab names unclear and were unsure what type of information they featured, particularly Web Sites, NZ Resources, Find More Research, Research, and Other Media. Some testers recommended usage instructions on the Home page to explain the purpose of the Guide, the tab structure, and contents.

Several testers indicated that the resources on the Guide were too hidden; using them required more clicks than just finding the same resources from the Library home page. This amount of cross-coverage diminished the Guides' usefulness.

Several testers mentioned that specific pages or the Guide in general had too much information. They suggested the prominent placement of key resources and including only important ones; they did not wish to browse resources, but rather find what they were seeking quickly.

### **Resource Awareness**

Testers indicated that the Guides are too hidden on the web and should be promoted. In general testers liked the content and wished they had learned earlier about the resources. They suggested promoting the Guides in classes and informing lecturers about them. Several testers said that they use resources if their teachers recommend them.

Fewer than half of the testers appeared to perceive Liaison Librarians as sources of help for finding research resources. Most preferred to ask Department staff or their friends and classmates for help, or use a freely-available search engine. They preferred familiar, easy-to-access websites and did not wish to vary from established search methods. They appeared unaware that the Library offers more than books; several testers were surprised at the information presented in the Subject Guides.

## **VII. Conclusion and Recommendations**

The goal of this study was to investigate whether users' perceptions of the Subject Guides match their intended purpose and whether their design and content are understandable and useful. In general, users had mixed initial perceptions of the purpose of the Guides, but their perceptions became more positive as they investigated their selected Guide. Most testers suggested better promotion of the Guides. Several users found the Guides' design challenging, particularly the use of photos, the font sizes, tab labels, and the tab structure. Content was deemed useful in general but users struggled to identify some content areas and were sometimes overwhelmed by the amount of information.

The study revealed much about how students search for information as well as what they thought about the Subject Guides. The testers demonstrated many typical characteristics of their generation, such as seeking information in a shallow, horizontal manner and having unsophisticated mental maps of the Internet. Library Subject Guides are not likely to influence students' information skills and significantly alter their research behaviour. As mentioned previously, to be successful the Subject Guides need to offer and communicate a unique value proposition; something that sets them apart from their competition, e.g. Summon, Google Scholar, the Library Home page.

Usability testing alone can't fully address the issue of value. But the Library can try to improve the Subject Guides and offer a more appealing tool to help students to learn about and use academic and professional information sources. The investigators believe that they gained valuable feedback from testers. This feedback has enabled them to identify elements of the Subject Guides that could be improved to make them more useful and attractive to users.

### **Recommendations**

1. Promote Subject Guides more widely to students and staff, and clarify their value:
  - a) External venues could include course LMS pages, course guides, posters in the Library and plasma screens.
  - b) Create marketing terminology for describing and promoting the value of Subject Guides. A value proposition should explain why students would bother using a Subject Guide.
2. Make Subject Guides easier to find on the University and Library web sites:
  - a) List Subject Guides under Library home page > Quicklinks.
  - b) Capitalise "guide" in Library home page left column.

3. Clarify macro-level content categories:
  - a) Develop clear and consistent tab labels.
  - b) Standardise terminology used in the Guides relating to the research process and research materials. Students are confused by the terms research, resources, sources, information, and articles—these are often perceived as interchangeable.
4. Improve layout to enhance usability:
  - a) Consider changes to column layout, i.e. encourage two-column structure.
  - b) Increase visibility of tabs to aid navigation.
  - c) Use photos and images only to describe, explain or illustrate a resource or service.
  - d) Remove selected embedded LibGuides features such as the RSS Updates and Share buttons.
  - e) Increase font sizes where possible.
  - f) Improve micro-level descriptive information for resources.

## **VIII. Next Steps**

1. SGGG to host a group IS session to get feedback on the recommendations.
2. Implement the recommendations:
  - a) Investigate whether LibGuides styles can be altered to include recommended changes to design and layout
  - b) Change guide template where possible to reflect new design elements
3. Perform usability testing again (1 year +) with a larger homogenous cohort; expose this group to the Guides at the beginning of the year and then ask at the end of the year to evaluate their usefulness
4. Develop additional ideas for further evaluation and user behaviour investigation where desired

## APPENDIX I—Usability Testing Script, September 2012

Adapted from: Krug, S. *Rocket Surgery Made Easy: The Do-It-Yourself Guide to Finding and Fixing Usability Problems*. Berkeley: New Riders, 2010, pp. 147-153.

Script	Actions
<p>Hi, _____. My name is _____ and I'm going to walk you through this session. Thank you for coming here today to help the Library with this study.</p>	<p>Web browser open to University home page</p>
<p>Before we begin, I have some information for you about your participation. This project has been approved by the University Librarian and is being conducted so the Library can gain a better understanding of how to help students with their research. It's important that you understand we are not testing you; we are testing a web site. You can't do anything wrong!</p> <p>As you use the site, I am going to ask you as much as possible to think out loud: to say what you are looking at, what you are trying to do, and what you are thinking. This will be a big help to us. We want your honest reactions.</p> <p>If you have any questions as we go, just ask. I may not be able to answer them right away, since we are interested in what people do when they don't have someone sitting next to them to help. Also, if you need to take a break at any point, just say so.</p> <p>Also, we are using software that will track the movements you make with the mouse. So the session will be recorded in this way, which will help me so I won't have to take as many notes.</p> <p>There are three other things you need to know:</p> <p>First, your participation is entirely voluntary. Second, you are free to change your mind and stop participating at any time. Third, your answers will be completely anonymous and you will not be identified to anyone other than the</p>	<p>Show human subjects/ethical approval document—information and consent</p>

<p>three librarians involved in doing these testing sessions.</p> <p>Do you have any questions so far?</p>	
<p>OK. Before we look at the site, I'd like to ask you a few quick questions about yourself.</p> <ul style="list-style-type: none"> <li>a) What year of study are you in?</li> <li>b) What is the main subject you are studying?</li> <li>c) How often do you use the University of Otago Library web site? (Daily, weekly, occasionally, rarely, never)</li> <li>d) Have you ever used one of the Library's Subject Guides?</li> </ul>	<p>Record the responses.</p>
<p>OK, thanks. Now we can start looking at things.</p>	<p>Click on the Library home page.</p>
<p>13. First, let's look at the list of items under the Research column. Which items do you think would be the most helpful to you if you needed to find relevant information for an assignment or project? (Testing web page as well as types of resources)</p>	<p>Spend 3-4 minutes here. Just talking, no clicking.</p>
<p>14. What about the Subject Guides link under Research? What does the name "Subject Guides" suggest to you? (Testers have been asked earlier whether they have ever used a Subject Guide).</p>	<p>Spend a minute or two here. Just talking, no clicking.</p> <p>*If they have used a SG, ask how they found out about it—did they find it on their own?</p>
<p>Please click on the Subject Guide most relevant to your major.</p>	
<p>15. Now, look at this page and tell me what you make of it: what strikes you about it, what it's for, and what you can do here. Just look around and give me a bit of narrative as you go. You can scroll, but don't click on anything yet.</p>	<p>See what they say about tab names, content expectations, layout, design, the liaison profile, etc.</p> <p>Look for what they don't notice and ask them—"What do you make of these?"</p>
<p>Now I am going to ask you to look at this guide</p>	<p>Allow the user to proceed until you don't feel like it's producing any value or the user</p>

as it relates to a hypothetical situation.  Again, it will help us if you can try to think out loud as much as possible as you go along.	becomes frustrated.  Repeat for each task or until time runs out.
16. SCENARIO:  The situation is that you have been asked by your lecturer or tutor to find outside resources for a particular project or assignment.  a) What would you click on first?  Why did you pick this page?	User clicks on a tab.  Look for clues to page labels and content perceived as relevant.
b) What do you think of the way the page looks?	Look for: layout, amount of information, box headings, whether they scroll, what they like and don't like.
c) Which thing on this page would you want to click on first?	Why?
d) Does anything else on this page look useful?	If yes, why?  Look for: box headings and any additional information, what they like and don't like.
17. ARE THERE ANY OTHER PAGES/TABS you would consider looking at?	
5a [IF NO] OK, that's fine.  <ul style="list-style-type: none"> <li>I noticed you haven't looked at the _____ page yet. It's really helpful for us to know why people might not look at this page so is there any reason why you didn't choose to go to this page?</li> <li>OK, and how about the _____ page?</li> </ul>	Make sure user has viewed all 3 shared pages: Find Books, Find Articles, and Writing & Citing.  Look for issues of relevance—understanding the terminology and intention of the page  [Here is where we suggest looking at one of the 2 or 3 remaining common pages the user has not chosen]
5b. [IF YES] OK, let's go there. <ul style="list-style-type: none"> <li>What do you think of the way the page looks?</li> </ul>	Look for: layout, amount of information, box headings, whether they scroll, what they like and don't like.
<ul style="list-style-type: none"> <li>Which thing on this page would you want to click on first?</li> </ul>	Why?



<ul style="list-style-type: none"> <li>Does anything else on this page look useful?</li> </ul>	Why? Why not?
<ul style="list-style-type: none"> <li>Are there any other pages/tabs you would consider looking at?</li> </ul> <p>[If <b>NO</b> – return to step 5a]</p> <p>[If <b>YES</b> – return to 5b]</p>	Follow steps 5a or 5b until all shared pages are viewed: Find Books, Find Articles, and Writing & Citing.
Now that we've had a good look through this guide, what would you do if you still couldn't find what you needed on this guide, or had any questions about using the library?	
We are almost done. Before we finish, do you have any other comments about how we might improve these subject guides or make them more useful to students?	
Thanks, that was very helpful. We are done! Do you have any questions for me before you go?	Give them their incentive voucher.
Thanks again for coming today and participating in our study.	Escort them out of the room.

## APPENDIX II—Image of University of Otago Library Home Page at September 2012

Address <http://www.library.otago.ac.nz/>

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