Listening and learning: myths and misperceptions about postgraduate students and library support

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Abstract

Purpose – The University of Otago Library conducted a review of its postgraduate support program in 2018. The purpose of this paper is to report on the findings of a questionnaire and follow up focus group undertaken as part of the review. It highlights postgraduate student preferences for learning about support services, their ideas on marketing these services effectively and the kind of engagement that works best for them.

Design/methodology/approach – A questionnaire was developed and deployed in July 2018. It contained 20 questions and was emailed to 2,430 enrolled Otago doctorate and master's students by the University of Otago (GRS). A total of 564 responded, 391 completing all questions. A follow-up focus group was held in August 2018. Quantitative data were collected and analyzed using Qualtrics software and qualitative data were coded and analyzed using NVivo software.

Findings – Respondents highlighted the difficulty they have learning what support services are available to them. In some cases, they also feel a stigma when seeking help because of their status as postgraduate students. They suggest practical ways libraries can better reach out to them. The findings confirm previous literature about the need for libraries to improve marketing of their services to postgraduate students, communicate via supervisors and departments where possible and provide a variety of engagement options.

Originality/value – Before (re)developing postgraduate programs, libraries can gain valuable insights and test assumptions by surveying students.

Keywords Academic libraries, University libraries, Graduates, Library users, Library services, Librarians, Outreach, Doctoral students, Postgraduate, Master's students, Subject librarian, Support programme

Paper type Research paper

Introduction

In 2018, the University of Otago Library conducted a review of its Information Services (IS) postgraduate support program. The aim of the review was to examine existing postgraduate support, develop aspirational strategies and implement a revised library postgraduate program of training and workshops. The review used a mixed methods research methodology. Quantitative data were collected from various sources including LibAnalytics, bespoke questionnaires and the Quality Advancement Unit (QAU) student opinion survey. Qualitative data were collected from bespoke questionnaires, interviews, focus groups and structured discussions. This paper focuses on the results of one of those data sources: a questionnaire sent to all enrolled postgraduate students

completing masters and doctoral study at the University of Otago (2018) in 2018. It also reports findings from a follow-up focus group. It highlights what postgraduate students tell us about their preferences for learning about support services, including the library. It includes their ideas on how to increase the visibility of the library, market support to them and start to paint a picture of what their ideal library postgraduate support service would look like. Importantly, it demonstrates that some assumptions we had about how these students find out and used library services are incorrect. As the review of the IS postgraduate support program aimed to be as student centric as possible, these insights have since proved to be invaluable.

The University of Otago (Te Whare Wānanga o Otāgo)
The University of Otago is a research-intensive university located in Dunedin, New Zealand, with satellite campuses in Auckland, Wellington, Christchurch and Invercargill. Founded in 1869, it is New Zealand's oldest university and offers more than 195 undergraduate and postgraduate programs. The University is currently divided into four academic divisions: Division of Humanities, Division of Health Sciences, Division of Sciences and a Division of Commerce better known as the School of Business. In 2018, the University had a roll of 18,840 equivalent full-time students. Over 4,500 of those students studied at postgraduate level (University of Otago, n.d.).

The University of Otago Library operates six libraries on the Dunedin campus. The IS team within the library supports the research, teaching and learning activities across all four divisions. This includes supporting postgraduate programs through providing 1:1 consultations, workshops, online learning resources like LibGuides and participating in postgraduate orientations, seminars and classes, when invited. Subject Librarians are primarily responsible for delivering these services. Research Services Librarians provide specialized support in the areas of research data management, online repositories and scholarly communication. The review of the IS postgraduate support program was completed by a combined group of Subject Librarians and Research Services Librarians.

Methodology
Six questions about postgraduate student interaction with the library were identified by the review group as important when initially defining the objectives and scope of the review.

- How visible are library support services in relation to other University of Otago support services?
- What are the most effective ways to promote library support to postgraduate students?
- How do postgraduate students want library support delivered?
- How frequently are they seeking library support?
- What barriers to accessing library support do postgraduate students encounter?
- What enables postgraduate students to access library support?

To begin to answer these questions, a questionnaire was developed and deployed in July 2018. It contained 20 questions and was emailed to 2,430 enrolled Otago doctoral and master's students by the University of Otago Graduate Research School (GRS), on behalf of the postgraduate support program review.

The questionnaire was designed in part to measure library visibility amidst the many other support services postgraduate students access at the University of Otago. Examples

include StudentIT who provide technical support and Student Learning Development who provide academic writing support. The data could then inform decisions on how the library could integrate offerings with other support services, focusing first on those with high visibility and high use. The questionnaire and focus group also captured information on student preferences about how the library should market to them, what kind of support they wanted and how that support should be delivered. The data also captured information about barriers students encountered, including barriers to accessing support in general that had library implications even if the problem was campus wide.

The questionnaire consisted of four sections. Section 1 contained seven demographic questions to identify characteristics such as respondent's division(s), level of degree and whether they were enrolled in part- or full-time study. Section 2 asked three questions to ascertain what postgraduate support was known and used. Section 3 contained four questions about the effectiveness of current marketing of support to postgraduate students. Section 4 included six questions specifically addressing library academic support for postgraduate students. From the 2,430 emails deployed, 11 were not delivered bringing the number successfully sent to 2,419. Qualtrics, the software used to collect responses, recorded a total of 564 responses (23 per cent response rate); however, only 391 completed all questions (16 per cent response rate). Quantitative data were analyzed using Qualtrics and Excel; and qualitative data were thematically coded using an inductive approach within NVivo software.

A follow-up focus group was held in August 2018. Participants were sourced from students who identified themselves in the questionnaire as willing to engage in further discussion. Nine students participated, representing all four academic divisions. However, despite efforts to ensure they were a representative sample, all respondents were female. Responses were thematically coded using an inductive approach within NVivo software.

Review of the literature
Before beginning data collection, a search of the literature was undertaken to gain insight into current thoughts and practices on research skills training for postgraduate students.

The current literature recommends collaborating as much as possible with faculty and other support units (Baruzzi and Calcagno, 2015; Blummer, 2009; Delaney and Bates, 2017), yet acknowledges that the librarian faces significant barriers to achieving such collaboration. One prominent barrier identified in the literature is the prevailing assumption of some faculty that postgraduate students have already acquired the necessary skills at undergraduate level or expect they will develop them simply by conducting research. These individuals tend not to encourage postgraduate students' engagement with library support and do not engage librarians in collaborative training (Baruzzi and Calcagno, 2015; Bussell et al., 2017; Harkins, 2011; Harris, 2011; O'Clair and Barnhart, 2013). Coupled with faculty perceptions, postgraduate students themselves may also be reluctant to seek support from librarians. Multiple reasons are postulated in the literature to explain this reluctance: self-sufficiency cultures; uncertainty about how librarians can assist; perceived lack of subject expertise; lack of awareness of library programs; preferences for asking peers or faculty for help; and lack of awareness in their own research skills deficiencies (Bussell et al., 2017; Delaney and Bates, 2017; Fong et al., 2016; Moore and Singley, 2019; O'Clair and Barnhart, 2013). Even when librarians successfully engage faculty and postgraduate students, they may encounter tensions or a dissonance between them, as postgraduate students may want to learn new and different knowledge and skills than those their supervisors recommend and use themselves (Bussell et al., 2017; Fong et al., 2016). One possible explanation is that supervisors focus on the skills required during the study period, whereas postgraduate

students put more emphasis on both professional and academic skills for after the study period (Fong *et al.*, 2016).

Changing perceptions is difficult, but the literature provides suggestions on how librarians might overcome these barriers. The first is to embed library interventions at the department level as seamlessly as possible (Baruzzi and Calcagno, 2015), so the value of library support is visible and obvious (Delaney and Bates, 2017; Harris, 2011). As Moore and Singley (2019) conclude, for the postgraduate students, the library is just one of many potential starting points, whereas the supervisor–student relationship is both central and influential. The second related point is to improve marketing so that it is targeted and, wherever possible, delivered through a department or supervisor and at point of need (Delaney and Bates, 2017; O'Clair and Barnhart, 2013). This also means acknowledging that the needs of master's and doctoral students are different, that disciplinary differences are accounted for and that international students are targeted separately (Allan, 2010; Delaney and Bates, 2017; Fong *et al.*, 2016). Another suggestion in the literature is to create postgraduate learning spaces in the library such as graduate or doctoral commons (Bussell *et al.*, 2017; Delaney and Bates, 2017). Such learning commons might also include other support providers (Delaney and Bates, 2017). One final consideration is using self-assessment tools that provide feedback to postgraduate students and supervisors about the student's research strengths and weaknesses. A program of targeted support that includes the library can then be implemented (Allan, 2010; Delaney and Bates, 2017).

The literature indicates that librarians commonly use workshops to support postgraduate student learning. While the literature recognizes that personalized 1:1 support is very effective, it is also recognized as difficult to scale (Delaney and Bates, 2017; Harris, 2011; Peacemaker and Roseberry, 2017). Conversely, while workshops scale better, they may suffer from being less discipline-specific and not always at point of need (Delaney and Bates, 2017). A commonly identified problem with workshops was not that postgraduates disliked the format but that (for various reasons) they failed to turn up (Bussell *et al.*, 2017; Fong *et al.*, 2016; Peacemaker and Roseberry, 2017). Bussell *et al.* (2017) argue that given the format is generally well-received, libraries need to look at content, time and promotion as possible factors in drop off rates and work on adjusting these. Peacemaker and Roseberry (2017) experimented by modifying the format and transforming workshops into mini conferences with mixed results but demonstrated that co-presenting with faculty and other support services seemed to increase attendance. There also appears to be an expansion of library workshop topics, with professional work skills becoming more commonly taught alongside research skills (Blummer, 2009; Fong *et al.*, 2016), such as building professional networks and managing an online profile. This may reflect the different endgames of postgraduate students, some of which will be entering professional careers, rather than academic careers, after study (Fong *et al.*, 2016). A recent case study by Ince (2018) highlights other popular services for postgraduate students amongst selected Seton Hall and ARL libraries including workshops, dedicated postgraduate spaces and publishing services. Ince notes the importance of discoverable library graduate services' webpages to support both students and their supervisors. Ince concludes that this type of online reference point can increase visibility of library services and ultimately strengthen the odds that students will use them and develop their research skills.

The effectiveness of online versus face-to-face support was also addressed in the literature. Libraries use both to engage with postgraduate students, even though students tend to prefer face-to-face and may even consider online of lower value (Harkins, 2011; O'Clair and Barnhart, 2013). And yet, despite being intensive to create and maintain, online support resources are cost-effective, scale well and appear to be effective learning objects

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(Blummer, 2009; O'Clair and Barnhart, 2013; Shaffer, 2011). Bussell *et al.* (2017) make the distinction between asynchronous and synchronous online instruction concluding that postgraduate students prefer the former over the latter, while Harris (2011) distinguishes between modes of delivery that are only temporarily effective and those that produce deeper learning, placing online instruction in the former and in person 1:1 training in the latter.

Results

Questionnaire

Who completed the questionnaire? All four campus divisions were represented in the data with particularly good representation from doctoral students in the Division of Sciences, Division of Health Sciences and Division of Humanities (Table I). A total of 30.85 per cent of respondents self-identified as being at the beginning of their studies, 41.31 per cent as being in the middle and the final 27.84 per cent at the end. Full-time students (86.7 per cent) and on-campus-based students (89.01 per cent) made up the majority of respondents. Just over 60 per cent of respondents were domestic students.

How visible is the library? Respondents were asked to list as many academic support activities as they could recall from memory. This included face-to-face and online support. They were also asked to be specific in their answer; for example, if they mention "workshop", then they were asked to include who ran it (e.g. IT Training) and what the topic was (e.g. Word formatting). These answers were then coded so that responses that mentioned the library could be identified from the answers that did not. The library was recalled 35 per cent of the time (Table II).

When provided with a list of academic support service providers at the University of Otago and asked, first, to identify ones they were aware of and, second, ones they had used, the library achieved the highest recognition and usage rate of any support service (Tables III and IV).

Division	Research doctorate/PhD	Coursework doctorate	Research masters	Coursework masters	Other (please state)
Division of Commerce/School of Business	32	1	6	30	2
Division of Health Sciences	94	3	19	6	3
Division of Humanities	75	0	29	38	1
Division of Sciences	128	0	70	23	5
Other (please state)	6	0	3	9	1

Table I. Division postgraduate student belongs to and degree they are working towards

Unable to answer	9%
Did not report library	56%
Did report library	35%

Table II. Responses to question "list as many academic support activities for postgraduate students at the university of Otago as you can think of"

How do we inform postgraduate students of our services? When asked to select the most effective method to inform them of support services, postgraduate students showed a strong preference for email from their department, followed by supervisor recommendation (Table V). Posters and flyers, both paper and digital, were rated some of the least effective. When asked to select the single most effective method, students remained strongly in favor of email above all other options (Table VI). Even when the data are broken out by division, degree and other categories collected, the strong preference for email followed by supervisor recommendation stays constant.

How frequently are postgraduate students seeking library support? Respondents were asked to indicate how frequently they seek out library assistance with their research needs and then more specifically how frequently they contact their Subject Librarian (Table VII).

Overall, while only 52 per cent of respondents specifically contacted their Subject Librarian, 79 per cent of respondents did seek help with their research needs from the library at least once a semester or more.

Aware of	Count
Library	402
My department	340
ITS helpdesk	316
Graduate Research School (including the doctoral and scholarships offices)	294
Career development center	262
IT training	261
Disability information and support	247
Student learning development	234
International office	229
Pacific islands center	129
Māori center – Te Huka Mātauraka	126
Māori postgraduate support adviser	74
ResBaz/Software carpentry	62
Distance office	47
Other	11

Table III.
Postgraduate
support services
students are aware of

Have used	Count
Library	317
My department	304
ITS helpdesk	186
Graduate Research School (including the doctoral and scholarships offices)	181
IT training	129
International office	123
Student learning development	103
Career development center	80
ResBaz/Software carpentry	41
Disability information and support	28
Other	19
Distance office	14
Māori center – Te Huka Mātauraka	11
Māori postgraduate support adviser	11
Pacific islands center	7

Table IV.
Postgraduate
support services
students have used

Barriers to seeking library support. When asked to select the main reasons they do not access library academic support services, respondents indicated that the lack of awareness was a significant reason. While the lack of discipline-specific knowledge was not identified as a significant barrier, not tailoring support to their specific area of research interest might be interpreted as being of less value (Table VIII).

When further asked to select only the most significant barrier from the previous question, the pattern remains fairly consistent, with only some minor shifts (Table IX).

Both free-text answers from the questionnaire and the follow-up focus group were thematically coded using NVivo software. The free-text questions in the questionnaire asked postgraduate students to:

- tell us what they think would help them find and use academic support services in general;
- provide ideas on ways the library could support them;
- provide ideas on what would make it easier for them to find and use library academic support services; and
- describe their ideal library academic support service for postgraduates.

The following themes were consistent across these free-text answers.

Theme 1: Work through the departments and supervisors. Respondents suggested that information, recommendations and support should come via their departments and

Most effective way inform	Count
Email from department	377
Supervisor recommendation	270
Postgraduate welcome/orientation events	228
University website – single dedicated graduate student information portal	195
Department newsletters	168
Social media (e.g. Facebook, Twitter)	167
Peer/friend recommendation	166
University website – on the different webpages of the areas providing the support	107
Posters and flyers displayed/distributed around the university campus	105
Digital posters displayed on screens around the university campus	81
Other	15

Table V.
The most effective way to inform postgraduate students about academic support services at the University of Otago – select all that apply

Most effective way inform	Count
Email from department	204
Supervisor recommendation	70
University of Otago website – single dedicated graduate student information portal	48
Peer/friend recommendation	24
Social media (e.g. Facebook, Twitter)	24
Department newsletters	23
Postgraduate welcome/orientation events	19
University of Otago website – on the different webpages of the areas providing the support	6
Other	4
Digital posters displayed on screens around the university campus	3
Posters and flyers displayed/distributed around the university campus	3

Table VI.
The most effective way to inform postgraduate students about academic support services at the University of Otago – select only one

supervisors where possible, to streamline the information flow and give the information more authority. When engaging with them, being in the department lowers barriers. Some respondents felt that their department or supervisor was not providing enough information. Targeted marketing to a specific department makes it more likely to be noticed.

Theme 2: Email is a primary communication tool. Although the odd respondent mentioned email overload as a barrier, the majority indicated that email is the one communication tool that works for most postgraduate students. Even more interesting was the advice that one email is not enough. Respondents seemed to prefer the option to ignore repeat email messages than risk missing a one-off message.

Theme 3: Do not make them look in multiple places for information. A common request from respondents was the creation of a "one stop" information portal to learn about all support services and events. Conversely, having to seek information from multiple different

In general how often	More than once a week(%)	About once a week(%)	Two or three times a month(%)	Two or three times a semester (%)	About once a semester (%)	Never (%)
Would you seek library assistance with your research needs?	5	4	15	21	34	21
Do you contact your subject librarian, either personally or online?	1	1	7	15	29	48

Table VII.
How frequently are respondents seeking library assistance and how frequently respondents are they specifically contacting their subject librarian

Main reasons	Count
Lack of awareness that the library offers academic support to postgraduate students	153
Time constraints. I find it difficult to fit this into my busy schedule	131
Already confident in my research skills	108
Support too generic, not tailored to my research area	104
Not applicable	78
Never available at the time I need it	39
Other	39
Librarians do not have enough discipline-specific knowledge	33
Library support not valued by my supervisor	3

Table VIII.
Main reasons respondents do not access library academic support

Most significant reason	Count
Lack of awareness that the library offers academic support to postgraduate students	99
Time constraints. I find it difficult to fit this into my busy schedule	83
Already confident in my research skills	50
Support too generic, not tailored to my research area	50
Other	16
Librarians do not have enough discipline specific knowledge	14
Never available at the time I need it	11
Library support not valued by my supervisor	1

Table IX.
Most significant reason to not accessing library academic support

sources was named as a barrier to finding and using support services. While many suggested an online portal, some also suggested a printed resource or even a central postgraduate helpdesk.

Theme 4: Information and marketing need to be targeted and explicit. A common problem identified by respondents was insufficient information about a service and a lack of effective marketing. Many respondents wanted to know how a tool or service enhanced their research experience before committing to it. Recommendations coming from peers, departments and supervisors held the most sway. Respondents suggested exploiting departmental and peer endorsements by including quotations in the marketing. Not being aware of the support available, or being aware but not knowing how to access, was frequently mentioned as a barrier by respondents.

Theme 5: Engage early and regularly. Respondents suggested that the earlier engagement began the better. Orientations, welcome packages, information sessions and introductory pamphlets were some examples of how respondents thought this could be achieved. Again, the theme of the department or supervisor being the conduit to work through featured in many of the comments. Regardless of the delivery method, the consistent message was that the sooner they learned about a support service the better, even if they were yet to require that support.

Theme 6: Some respondents feel they need permission. One interesting barrier discovered, and also mentioned in the literature, was the stigma associated with asking for help when studying at postgraduate level. Words such as proud, stubborn and too busy were used to explain why some postgraduate students do not seek support. Some respondents desired reminders to encourage them to engage with support services.

Theme 7: Variety of engagement. As a whole, respondents showed no clear preference for online or face-to-face support. In many responses, they also distinguished between online asynchronous and synchronous interactions, expressing a demand for both. In some instances, respondents were comfortable with generic and group support. In other instances, they placed importance on tailored or personalized 1:1 support.

Variety of engagement also extended to the time that engagement might occur. For some respondents, especially distance students and those working during the daytime, the possibility of getting synchronous support outside of standard business hours was something they saw as highly desirable.

Some concern was expressed about access to library support staff, particularly Subject Librarians. This ranged from comments about Subject Librarians not being in the same library that houses the collection for the subject, to delays in getting appointments, to concern over lack of library staff.

One clear message emerged from the concerns raised about librarian to postgraduate student real-time help at the library. Many respondents expressly asked for a physical postgraduate hub at the library, and/or a postgraduate helpdesk, perhaps with specific drop in times. Currently, the University of Otago Library does not have a postgraduate hub or equivalent.

Theme 8: Generic is OK but tailored is always better. As the quantitative data highlight, generic delivery of workshops, guides and other resources is not perceived as a major barrier. Perceived lack of discipline knowledge with the librarian even less so. However, a number of respondents indicated a preference for support to be as tailored as possible. At the very least, it should be clearly created and branded for postgraduate students and at the most be as discipline specific as possible.

Theme 9: Workshops are still relevant. Many respondents see value in workshops. Suggestions for improvement included having more available online (real time or

recordings), providing them outside normal business hours, providing them early in the research journey, embedding them within departments and having more reminders of when they are coming up.

Theme 10: Services they want. Free-text answers from the questionnaire often made reference to library support for citation/referencing and bibliographic management, database selection and searching, research skills (although this term was not defined further by those who used it) and alert services, indicating the library has high brand recognition in supporting these specific areas. The topics of research metrics, data management and copyright support were mentioned only sparsely. Conspicuous by their absence were no mentions of social media and altmetrics, scholarly networking, self-archiving and open access, although the latter was implied in places. There were, however, requests for the library to provide new services or expand current ones for topics like, research methodology, computational/statistical support, scholarly reading and writing, management and organizational skills and thesis guidance. Support for some of these are already provided by other University of Otago support units such as Student Learning Development. Others arguably should be supported through their supervisor. It is unclear whether respondents simply do not know about the service being offered elsewhere or they feel it is a better fit for the library. One possible solution is to work more closely with these services and use cross-promotion.

Focus group. The follow-up focus group sought to further illuminate the following:

- What is the best way the library can support postgraduate students at Otago?
- What are the main enablers and barriers to accessing library postgraduate support?
- What would an ideal library academic support service look like?

On the whole, the major themes to emerge from the questionnaire were visible in the responses from focus group members.

Focus group members reiterated that a lack of awareness was a significant barrier. A centralized information portal, regular communications and targeted marketing would, it was argued, be positive steps to overcoming this barrier and enabling access.

Tailored support for postgraduate students, especially subject specific, was favored. Focus group members emphasized that their needs were complex because of their level of study and the specificity of their research. For example, they were less concerned about support on using databases, in general, but wanted support in selecting the "right" database or using specific databases. They were less concerned about how to evaluate information sources, but specifically wanted support on identifying good research articles in their field. They were less concerned about creating search strategies but wanted support for managing searches and setting up alerts.

Online and face-to-face support were both valued by the focus group members. Some commented on the value of physically meeting with their Subject Librarian, while others emphasized positive experiences interacting with online resources or using online chat. Communicating using email was again raised as a useful information sharing strategy. The possibility of a dedicated postgraduate space at the library was also suggested by focus group participants and linked in part to the idea of creating a centralized information space.

Discussion
Delivery of support services
Postgraduate students need to know the value of a support service before they engage with it. Marketing needs to be explicit about the benefits of attending a workshop, having a

consultation, visiting an online guide and so forth. If communication and points of contact can be embedded in, or at least associated with, their department, then postgraduate students are more likely to engage.

Communication through email is the most universally accepted means to contact postgraduate students. Regular emails can be tolerated well; students seem to accept what a broader population might term 'email overload'. While email directly from a librarian to a postgraduate student is not necessarily problematic, emails sent via a department email list hold higher value.

A range of delivery formats is required to meet the diverse needs of postgraduate students. The data show no clear preference for online or face-to-face, synchronous or asynchronous, formats. Instead postgraduate students do not want to limit their choices but do need information to make an informed choice as to whether a specific activity or resource will meet their needs. This information may come in the form of a peer endorsement, supervisor recommendation or a well-crafted promotional resource from librarians. Delivery formats need to be diverse because postgraduates' needs are diverse.

A physical space for postgraduates in the library, especially if combined with a helpdesk and/or drop in times, can support better engagement.

Marketing of support services
Respondents to the questionnaire, and focus group participants, identified some services they wanted that the University of Otago Library already provides. These included online chat, specific librarians supporting departments, online guides and support materials and early contact from their librarian. It was not clear whether these gaps in knowledge reflect poor marketing or poor execution of a service or lack of attention to one-off emails.

Feedback was clear that information about support services is currently too haphazard, with too many places to look. A single portal for information, whether online (e.g. web calendar), physical (e.g. a postgraduate hub) or both, is a popular solution. Marketing should be targeted toward postgraduate students and include information about the specific benefits of a service. Endorsement from supervisors, departments and peers was recommended as a marketing technique. Marketing through departmental email was far more popular than any other suggestion.

Whether current support is pitched at the appropriate level for postgraduate study is hard to ascertain when the few comments that mention this vary from too basic to far too advanced. However, Theme 7 suggests that this should be expected, as postgraduates represent a wide spectrum of experiences and needs, and both basic and advanced knowledge and skills training are required. Before engaging with students, we need to make it explicit what is being covered and the level at which it will be delivered.

Potential new services
Respondents suggest a number of new services. Three in particular were consistently suggested. First, there were requests for an alerts service that synthesized new research in specific fields and then sent the reports to interested researchers. Second, information sessions were mentioned several times as a delivery format respondents wanted. For example, sessions on specific tools or services (e.g. Interloan or Factiva) and general introductory sessions about library support services. Finally, a helpdesk with drop in times or office hours was mentioned and has already been elaborated on.

Barriers to accessing library support
The quantitative data indicate that most postgraduate students do not access library support because they are simply unaware of how the library can support them or find it difficult to make time. Additional qualitative data give us insight into some of the more nuanced issues. For example, a number of distance students commented that simply being a distance student felt like a barrier and that not enough was being done to provide them with the same opportunities as their on-campus counterparts. A related problem was the lack of support available outside normal business hours, specifically online chat and workshops.

Some respondents show concern at the lack of physical access to support. They see a help desk and/or library space specifically for postgraduate students, staffed by Subject Librarians, as one solution. It was rare for a respondent to suggest that perceived lack of expertise was a barrier, but there were a number of comments suggesting that respondents were surprised the library offered support and that they would not know what to ask. For some respondents, there is a stigma associated with asking for help, and for others, they simply felt they had no need to seek help from the library. It is hard to determine if this reflects well-developed self-awareness or a lack of it.

Implications
Having gathered and analyzed the data, the review group came to two important realizations. First, many postgraduate students were satisfied with current services and resources offered by IS in the library. Second, we had made some assumptions that were not true. Before the review, we questioned the use of frequent emails, assumed supervisors were providing information about the library to their postgraduate students and thought the lack of subject-specific knowledge was a significant barrier. We now have data that challenge these assumptions.

In general, librarians at the University of Otago do not conduct research on this scale. This is the first time the library sent a questionnaire to all postgraduate students regardless of whether they had prior contact with the library. It is also the first time the library has attempted to gather data to understand our support services in relation to those offered by other university support services. We will use these data to think strategically about how and who we can work with in the future. Although the planning and execution of the questionnaire required significant time and resourcing and the response rate initially seemed on the low side, we got considerably more responses than when gathering data in a piecemeal fashion, as in the past.

The review, from project planning to final report, was completed over the course of a year. Early on, the review group decided to use the experience to better understand the workflows of the researchers we support. As a result, a data management plan was developed and ethics consent to share the data was successfully applied for. Members of the review group upskilled in the use of Qualtrics and NVivo. Data carpentry workshops were attended to help support the implementation of tidy data principles, although, given the time constraints, the learning curve was too steep to learn R or Python for analysis. Finally, there were the practical aspects of deciding on a repository for the data, describing and uploading the data, writing an article, selecting a journal to submit the article to, participating in the peer review process and so forth. For the librarians involved, gaining this insight into a researcher's world has been invaluable professional development. The final result is data that are not only more representative, but a data gathering and analysis process that was more sophisticated and transparent than anything we have completed in the past.

As the questionnaire collected data relating to support services beyond the library, the University of Otago's GRS has been extremely supportive of the review and interested in the

results. The GRS specifically supports doctoral and research master's students and plays a pivotal role in communicating with postgraduate students at Otago. Even before the end of the review, they invited the library to participate in some of their initiatives. Since the completion of the review, a number of conversations have taken place between the GRS's Director and the University Librarian and a joint position paper is planned. Thus, a project designed to review library practices in supporting postgraduate students has the potential to influence wider university strategy.

Next steps for the University of Otago Library postgraduate support services
These data support changes to the University of Otago Library postgraduate support services. Although the implementation of all suggestions is not possible with current resourcing, they serve as aspirational goals. Those that are possible are being implemented throughout 2019.

Changes in 2019 include the reworking of our postgraduate workshops into two distinct types. The first type is introductory only, frequent and styled as quick presentations. They are a direct result of students asking for more and earlier intervention. The second type is longer, hands-on workshops. They will include hand-outs, as requested by many students, and marketed as much as possible through departments and supervisors. Starting with research data management, we are also trialing department hosted workshops that are discipline specific rather than generic. These are presented in partnership with a member of the faculty who provides support with subject-specific information as well as gives their authority to the proceedings. We are also supporting the development of an online postgraduate portal by the GRS which will include library information alongside other support services. Next steps will also include the reintroduction of a library support presentation at supervisor training run by the University of Otago Higher Education Development Center. While it is unlikely that the library can provide a dedicated postgraduate space at this point in time, this frequent suggestion has been passed to the GRS who are pursuing alternative options.

Evaluation of changes is being developed and implemented. We want to measure the success of these changes in terms of effectiveness in reaching our postgraduate students, communicating our value and providing the support they need. This is where future research will be undertaken.

Conclusion
Before collecting data, the postgraduate support program review team sought to better understand how visible library support was in relation to other University of Otago support services. We also wanted to explore effective ways to promote and deliver library support to postgraduate students. We wanted to know how frequently postgraduate students were seeking library support, what barriers they were encountering and what might enable better access.

What we uncovered closely matched the existing literature on the subject. Our respondents want both face-to-face and online support that includes both synchronous and asynchronous options. They also want the option to speak to a 'real person' at time of need, even outside normal business hours. They want to know about support early and be frequently reminded. They strongly recommend email as the best medium for this. On the whole, they would rather be told the same message multiple times than risk missing or forgetting something. Respondents prefer a single point of information on all services available and how to access them. A physical space in the library dedicated solely to postgraduate students' information needs and pulling together multiple support services

was one option suggested by respondents. They also prefer support that is specific to their research topic or discipline. However, they understood that this is not always possible. Marketing of services needs to be explicit about benefits. Respondents want to know why they should engage with a tool or service or attend a workshop. The views, recommendations and advice of peers, supervisors and departments are deemed of greatest importance. Any tool, service or workshop endorsed by them, or made available through them, will gain more attention.

By surveying postgraduate students, we discovered some assumptions that were wrong. We feared our heavy reliance on email to communicate was both unwelcomed and ineffective, but we now have clear indications that it works for the vast majority of postgraduate students. We believed postgraduate students were getting information about support services from their supervisors, but this is not always true. We felt that perceived lack of subject-specific knowledge was a reason postgraduate students did not engage with us, but it appears that is not a major or insurmountable obstacle. By reaching out to students, we now have data that are helping to inform changes to the postgraduate support we offer. Further research will be completed to measure the success of those changes; however, regardless of the outcome, reaching out and listening to our postgraduate students has been an enlightening and valuable exercise.

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Further reading

The data from the questionnaire is available at: Research Support Unit (2018), "Postgraduate support at Otago: student questionnaire answers", Figshare, available at: https://doi.org/10.6084/m9.figshare.7464938.v1

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