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research provides a case study focusing on evaluating the “one-shot” library instruction approach used for 2015 and 2016 cohorts. Survey data supports findings of other studies that as students transition to postgraduate study, embedded and discipline specific library support is needed.

Keywords: Information literacy, postgraduate students, Master of Business Administration (MBA), information seeking behaviour, business education

Introduction

This research was undertaken by business subject librarians at Manawātū campus to evaluate the library support provided to two cohorts of MBA students, and to ascertain if additional face-to-face or online support is required. Massey University has provided an Executive MBA programme since 1972. For more than 15 years the Library's business subject librarians have delivered information literacy skills sessions and research support to students enrolled in this programme. A Library workshop is provided to newly enrolled students during their orientation weekend. Students can access ongoing research support from the five business subject librarians located at Albany, Manawātū and Wellington campuses. Asynchronous learning materials are provided via the library website and a Moodle community course (for each cohort), but are not currently embedded within specific papers or assignments, at point of need.

- Massey University MBA

Entry requirements for the Massey University MBA programme include a selection interview, evidence of previous tertiary or professional qualifications and a minimum of five years practical work experience which includes managerial experience (Massey University, 2016). MBA students study in block mode, meaning that they attend a monthly weekend class in Auckland, Wellington, Manawatū, New Plymouth or Christchurch. In class, adult learning teaching models build on and incorporate students' experience, and discourse based pedagogy is used to support learning (Kevany, 2013). Learning materials are provided in Moodle. Similar to many students who enroll for distance education, their employment and study obligations require discipline and commitment to complete this postgraduate degree (14 papers and a research project). People who enroll for the MBA tend to be mature (30 to 50 years) and from different backgrounds (Ruth, 2016). Many of these students are returning to tertiary education after a long period of time in the workforce (Mallon, 2014; Stagq & Kimmins, 2014).

- The library workshop

Whilst tertiary or professional qualifications and managerial experience are entrance requirements for most MBA programmes, this is no guarantee that students will have the information literacy skills needed to enable success during their first year (Kriflik & Kriflik, 2006). A key motivation to undertake this research was the observation that MBA students tend to have quite diverse information literacy skills – from the beginner level right through to expert searchers. Mallon (2014) and Nimer (2009) also noted the differing skill levels of older students returning to education. As discussed by Hesselden (2012), there is an ideal opportunity to provide students with an overview of information literacy skills at orientation. When planning content to include, we were very

conscious of focusing on the teaching of information literacy skills that we know are important in an academic environment. As the workshop is a "one-shot" library class, we were keen to ensure that the basic skills were covered, as further opportunities to meet with the class were limited.

Until 2015, the library workshops have been provided during the MBA orientation weekend, off campus in conference venues in Palmerston North. At these venues, internet access was often limited, and equipment was also restricted to supporting presentation style lectures or PowerPoint demonstrations. Consequently, it was not possible for students to practise the skills taught during the library workshop. Evidence of student disengagement in class prompted the librarians to question the value of continuing to deliver the library workshop during the orientation programme – without the appropriate technology for students to engage with using the library resources.

In 2015 the MBA Director changed the venue for the library workshop, and organized to bus the students to the library training rooms at the Manawatū campus. These rooms are designed specifically to support information literacy training and include computers for workshop style classes. The venue change provided the opportunity needed to break from the lecture style PowerPoint demonstration approach and create new workshop content with an emphasis on teaching transferable information literacy skills. These information literacy skills included creating search strategies for finding scholarly literature, critically evaluating search results and allowing time to practise (Stagg & Kimmins, 2014; Quinn & Leligdon, 2014). A team teaching approach to this workshop was taken by the three business subject librarians, as it afforded an opportunity to meet and interact with the students, and build relationships. This is particularly important when students are studying by distance. During this workshop students were also encouraged to work in pairs, use computers, and were provided with an activity sheet to work through. A positive outcome of these changes is that increased student engagement was observed during the revised workshops.

Problem

The purpose of the research was to improve library services for MBA students by

- evaluating a new workshop
- assessing client needs

The key objective was to evaluate the recently re-designed "one-shot" library session delivered to the 2015 and 2016 cohorts. It was important to understand the students' perspective on whether the information literacy skills that were covered in the workshop were appropriate for this course. For example, given their prior knowledge and experience, should the library workshop be focusing on specific resources? In

Evaluating and Developing an Information Literacy Programme for MBA Students

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Massey University has the longest continually-running Executive MBA programme in New Zealand which is specifically designed for managers who have substantial professional and managerial work experience (Massey University, 2016). Studying part time over 25 months, students learn how to be successful in senior leadership roles in the public or private sector. Business librarians at Massey University have been involved for more than 15 years in delivering information literacy sessions for this programme during their orientation weekend. This

support via synchronous face-to-face, or synchronous online, or asynchronous via online learning management software (Moodle)? We also had concerns about how well students recall these information literacy skills at a point of need so we identified three questions that were the impetus for our research.

- How does the library session affect their transition to post-graduate university study?
- After the orientation weekend, what follow up teaching or support is needed during the first year of study?
- Do they use the skills gained in the first half of the programme?

The two cohorts surveyed enrolled in 2015 and 2016. By including both cohorts in this study, it was possible to compare the experiences of students who were at different stages within the programme. In their second year, the 2015 cohort are working on literature reviews leading up to their research reports, so there is an opportunity to embed more support on advanced searching skills. The 2016 cohort have completed the first semester of study for their first year so there are opportunities to align and embed support for using specialized databases such as legislation and legal databases at point of need within the programme.

Whilst the findings from our research will primarily help the business subject librarians shape their teaching practice for these students, they will also be of interest to other subject librarians who teach information literacy skills to distance students who tend to be older, combining work and study commitments whilst enrolled in postgraduate study.

• Literature review

This literature review focuses on research articles involving MBA, as well as studies of other post-graduate business students who sought user feedback on information literacy instruction. Research on students' approaches to information searching in general was also considered. The Executive MBA, information seeking behaviour/information literacy in the workplace, was also of interest in understanding the overall context.

Simon (2009) provides a summary of the literature on information literacy instruction for post-graduate business students and the characteristics of this group. Business students in general are recognised to be very task-focussed and less inclined to spend time browsing than their counterparts in other social sciences (Simon, 2009). Mallon (2014) further identified the key characteristics of executive MBA (EMBA) students as being time pressured and their need for flexibility. It should be noted that in the U.S. literature, there is a clear distinction between the MBA and the EMBA (Mallon, 2014). The MBA describes a more campus-based, pre-work or early career qualification, whereas the EMBA is aimed at current business people. The format of the qualification is quite different. Often done as a cohort, the programme is compressed, covers meals and sometimes accommodation, and includes opportunities for overseas travel and research (Petit, 2011).

There are inconsistencies in how librarians deal with information literacy in MBA programmes. Cullen (2013) notes that information literacy doesn't appear in the requirements of the international accrediting body for business schools, the Association to Advance Collegiate Schools of Business

AASCB (AASCB 2012, cited in Cullen, 2013). This lack of recognition is not unfamiliar to librarians, and Cullen (2013) refers to the difficulty of persuading Business Schools of the value of information literacy instruction. Employers however, have been shown to value information literacy, even if the phrase is unfamiliar to them (Head, Van Hoeck, Eschler, & Fullerton, 2013).

Many of the studies dealing with information literacy and MBA students emphasised a range of online, point of need, or self-paced resources (Quinn, & Leligdon, 2014; Slavin, 2015; Mallon, 2014), as well as expert assistance through face to face classes or individualised consultations (Mallon, 2014). Relevant ways of learning such active learning (Quinn, & Leligdon, 2014; Mallon, 2014), and problem or case based learning (Cullen, 2013) were felt to be most appropriate for this group of students. Offering a range of ways for students to access information was crucial – flexibility and diversity to maximise students' chances to learn the skills to succeed not only in their academic studies, but also in their business activities which is these students' key motivation.

It is important to note that it may be some years since MBA students completed previous tertiary study, and for some the academic environment is completely new. Stagg and Kimmins (2014) applied the discussion of skills development in students completing their first year in Higher Education (FYHE), normally applied to the undergraduate transition to HE, to first year coursework postgraduate students (including MBA students). They found in their surveys that there was little difference between undergraduate and postgraduate FYHE in their information seeking behaviours and support needs. Both groups were found to have low confidence in locating or evaluating academic information.

Hesseldenz (2012) notes the importance of a general library orientation session for these students when transitioning to postgraduate studies. However if this is the students' only chance for information literacy instruction, this is likely to be inadequate. According to Merz and Mark, (2002) the "one-shot" class has always been the most common form of information literacy instruction in universities. Whilst a "one-shot" class can have a positive impact on students' information literacy competencies (Hsieh, 2010), a study by Spievak and Hayes-Bohanan (2013) identified that increased use of library services was a long-term effect of a one-shot class. Mery, Newby, & Peng, (2012) believe however, that more sustained instruction over time is more effective in building confidence and competence.

The current study is part of a larger body of literature assessing information literacy instruction interventions for business students with the aim of strengthening student capabilities in this area. It appears to be the first published study on New Zealand MBA students and their diverse information literacy competencies and support needs.

- Study design / approach

Theory influenced this research at all stages. An evidence based approach was taken during the initial stages of the project. Methods and findings from previous studies were examined, including recent surveys at Massey University:

- Researcher support library needs analysis (2015)
- Library staff training needs analysis (2016)
- MBA programme orientation evaluation form (2016)

An experiential learning approach was used in the design of the new workshop, including the eight elements of the Massey University Library Teaching Model – Face-to-Face: Connection, Context, Collaborative, Structured, Learner-centred, Demonstration/Modelling, Active Learning, Interaction, Reflection (student).

The learner-centred approach is also reflected in the research methodology. The research began with the collection of data rather than the formulation of a hypothesis. An inductive approach was taken, putting assumptions aside, focusing on the students and their experiences – to explore "what's going on?" for them. Figure 1 provides an overview of the methodology, which can be described using the stage-gate model (Cooper, 2008 & 2014) used widely in the business industry:

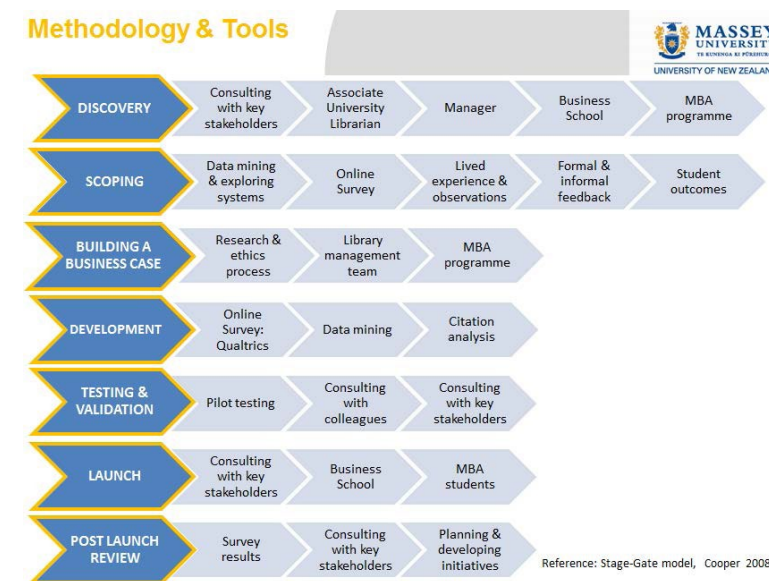


Figure 1 Overview of Methodology

The *Discovery stage* began with identifying a research problem. In January 2016 the Manawātū Campus business subject librarians agreed to work as a team on the research. In February, the focus of the research was confirmed after consultation with the Associate University Librarian Client Services. Knowledge of the strategic direction, goals and library planning was crucial at this stage. In March, after further consultation with the Library Information and Research Services Manager, and the MBA Programme Director, the research questions were agreed.

In the *Scoping stage* data and methods were explored during April. All possible sources of data available at Massey were considered. As the students are part time, distance learners, and have access to technology, an online questionnaire was selected. Qualtrics – available for staff at Massey – was used to develop the survey instrument. Qualtrics allowed us to create an online survey that would work for computers as well as mobile devices – suitable for the students. Figure 2.

In *building a business case* ethics processes for professional staff at Massey were followed and the research was approved by the management team as low risk in May. This meant that the researchers were responsible for ethical conduct.

In the *Development stage* the online survey underwent redesign numerous times. See Appendix 1 for survey questions.

The survey consisted of five sections:

- Demographics
Five categories: Gender; Age; Ethnic group; Prior study; # years working as a manager
- Before starting the MBA – confidence with research skills
Nine skills & free text box: Searching business databases; Using keyword searching; Creating an advanced search; Finding the full-text of journal articles; Identifying academic (scholarly, peer-reviewed) journal articles; Using e-books; Searching Google Scholar; Using self-help information; Consulting an information professional / business librarian)
- Doing the MBA now – confidence with research skills
Nine skills as above & free text box

• Further library support

Seven options & free text box: Databases on specialist business information; Newspaper databases; Law databases; Identifying the key journal articles and authors on a topic; Saving searches and setting up alerts in databases; Reference management software; Policies, Procedures, Regulations, Statistics & Reports: technical, research & annual

• Access to library support

Six options & free text box: Links to Library resources and information for assignments in Stream courses; Library question & answer forum in Stream courses; "Live chat" at scheduled times in Stream courses; Online Seminar or webinar on specialist business information sources; Face-to-face seminar on specialist business information sources; Library support available via social media

Care was taken to limit questions to those that directly related to the research and the learning outcomes of the class based on the Massey University Library Information Literacy Core Competencies (2006) Standards 1 to 3. We distinguished between what was "nice to know" and what was absolutely necessary for analysis. Initially, when working on the survey questions, we resisted including demographic questions, as this type of data is already available in the student management system for the classes. However, whilst constructing the survey, and thinking about the analysis phase, it was realised that surveys often represent a proportion of a class, and that in order to interpret and analyse the sample successfully – as well as to evaluate the effectiveness of the survey instrument – the demographics of the respondents could not be gained from existing systems. Considering ethics, the demographics section was made voluntary. Colleagues were consulted during this stage. A positive outcome of this is that a collaborative relationship with the Director of the MBA programme was developed, increasing our understanding.

In the *Testing stage*, as part of the ethics process, the online survey was pilot tested by library management, library and learning support colleagues. Māori, Pacific, and Chinese nationalities were included. The survey was also pilot tested for ESOL (English as a second language) and on a range of mobile devices. Changes were made to formatting and text

for clarity, and more demographic categories relevant to the Massey student population were added.

In the Launch Stage with the support of the MBA programme director and the library team, the research team travelled to Wellington to meet the 2015 class and launched the survey on the 6th of May. A short presentation and information sheets about the research were provided. iPads and a laptop were made available for students to use for completing the survey during morning tea. The MBA team then sent the anonymous survey link by email to the 2015 and 2016 cohorts. The survey was available online until 19th May.

Post Launch Review. All students who started the survey completed it successfully. A total of 25 responses were received from the 105 students (24%) who were sent the survey link. There was a higher response rate from the 2016 cohort (20 responses from 58 students). Most students took approximately five minutes to complete the survey. Two students stayed on the survey page after completing, indicating that they may have engaged with the library support information provided at the end of the survey. Research findings are now being used in consulting and planning.

Please answer all the questions, in this section.

BEFORE YOU STARTED YOUR MBA...

Thinking about your research skills and experience BEFORE you enrolled for the MBA Programme, please indicate your confidence level with each of the following:

	Never used	Not confident at all	Some confidence	Confident	Highly confident
BEFORE the MBA: Searching business databases (e.g. Factiva, Bloomberg, Business Source Complete, ABI Inform)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Using a keyword search strategy in databases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Creating an advanced search strategy (e.g. AND, OR, *, "phrase searching")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Finding the full-text of journal articles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Identifying academic (scholarly, peer-reviewed) journal articles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Using e-books (electronic or online books)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Searching Google Scholar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Using self-help information on searching and research (e.g. webinars, online demonstrations & tutorials)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 2 Qualtrics online survey, PC and mobile preview.

Findings

Understanding the sample
Whilst the demographic questions were voluntary, there was a 96% response rate from survey participants and these responses provided an indicative profile of the executive MBA students from the 2015 and 2016 cohorts currently enrolled with Massey University. Survey respondents were predominantly male (71%), aged from 20 through to 59, with the majority in their 30s (58% n=14). Half of the respondents were European (50%) with the rest identifying as Māori, African, Chinese and other. Figure 3 shows the range of managerial experience from the survey responses. Over half

of the respondents were experienced managers, with 16 of the 25 survey respondents indicating that they have worked as managers for five or more years (67%). In regards to prior study completed, survey respondents indicated that they held qualifications ranging from undergraduate certificates and diplomas (25% n=6) to undergraduate degrees (29% n=7) and postgraduate degrees (46% n=11).

Number of Years working as a manager

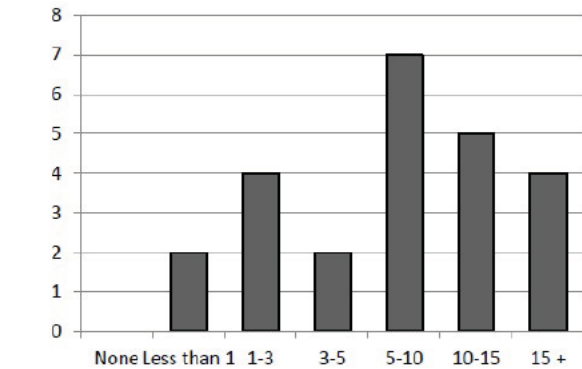


Figure 3 Respondents: Number of years working as a manager

Before starting the MBA
Respondents from both the 2015 and 2016 cohorts were asked to rate their levels of confidence with activities before their MBA study so that we could gauge whether there were noticeable differences in confidence levels post library workshop. Table 1 shows the range of responses.

Over 50% indicated that they had never used or no confidence at all in activities related to finding, accessing and evaluating skills:

- Searching business databases (64% n=16)
- Searching Google Scholar (56% n=14)
- Creating an advanced search strategy (56% n=14)
- Identifying academic (scholarly, peer reviewed) journal articles (52% n=13)
- Finding the full-text of journal articles (52% n=13)
- Activities respondents rated themselves as confident/highly confident pre workshop were:
 - Using e-books (60% n=15)
 - Using self-help information on searching and research (48% n=12)

BEFORE the MBA	% Never used	#	Not confident at all	#	Some confidence	#	Confident	#	Highly confident	#	Total
Searching business databases	48%	12	16%	4	24%	6	8%	2	4%	1	25
Identifying academic (scholarly, peer-reviewed) journal articles	36%	9	20%	5	28%	7	12%	3	4%	1	25
Searching Google Scholar	32%	8	24%	6	12%	3	20%	5	12%	3	25
Finding the full-text of journal articles	28%	7	24%	6	24%	6	20%	5	4%	1	25
Consulting an information professional / business librarian	24%	6	20%	5	24%	6	16%	4	16%	4	25
Using a keyword search strategy in databases	20%	5	20%	5	28%	7	24%	6	8%	2	25
Creating an advanced search strategy (e.g. AND, OR, *, "phrase searches")	20%	5	32%	8	24%	6	16%	4	8%	2	25
Using e-books (electronic or online books)	16%	4	8%	2	16%	4	40%	10	20%	5	25
Using self-help information on searching and research	0%	0	16%	4	36%	9	32%	8	16%	4	25

Table 1 Before the MBA: Respondents confidence level with research skills (2015 and 2016 cohorts combined responses)

Table 2 shows respondents age and their prior academic qualifications. Age and prior qualification were looked at to see if there was any relationship with confidence levels pre workshop. Students regardless of their prior qualifications and experience indicated lower confidence levels with searching for and evaluating information. Just over half of those respondents with undergraduate qualifications, and under half of those with postgraduate qualifications selected that they had never used or were not confident at all: Searching business databases; Creating advanced search strategies; Finding full-text journal articles; Identifying academic (scholarly, peer-reviewed) journal articles; and Searching Google Scholar.

Comments in this section indicated areas for support and training:

- "Top tips for business / MBA study"
- "Not knowing where to access info i.e. databases"

Age	Certificate/Diploma	UG Degree	PG Degree
20 - 29			1
30 - 39	2	5	2
40 - 49		2	3
50 - 59	4		

Table 2 Respondents: age and prior academic qualifications

Doing the MBA: your skills now
When asked about their research skills now, the majority of respondents had increased confidence for all activities. As shown in Table 3 Never used/Not confident at all levels reduced for all activities post workshop, whilst Tables 4 and 5 show an increase in respondents' confidence levels for all

activities post workshop.

Comments received from table 5 reflected a range of skill levels. One student had high confidence:

- "Having significant experience in research the library session did not add anything to my research skills"

Interestingly this same student indicated that a face-to-face seminar on specialist business information sources would be useful. In contrast, another student experienced difficulties searching for library resources, and needed further support:

- "Still not clear or confident on how to search for articles/books through Massey Library. Several attempts have produced "no results". further training session would be welcomed :-)".

- Further library support

A survey question was included on the additional support that could potentially be offered by business subject librarians. There was a good response to the choices offered, however not all survey respondents answered this section, see Table 6 for the range of responses. The highest response rate was for identifying the key journal articles and authors on a topic with 24 (96%) of respondents indicating that further support would be useful as citation searching is a good technique to identify key pieces of research in the literature, especially at postgraduate level.

Comments received confirm the need for information literacy instruction and support:

- "I have no experience and no training in anything so the more on offer the better"
- "any help and support would really help. maybe some stream sessions we could log into. I have watched some of the OWLL ones about writing and they were great so maybe some aimed at MBA students would be good"



Table 3 Before and After: Respondents confidence with research skills

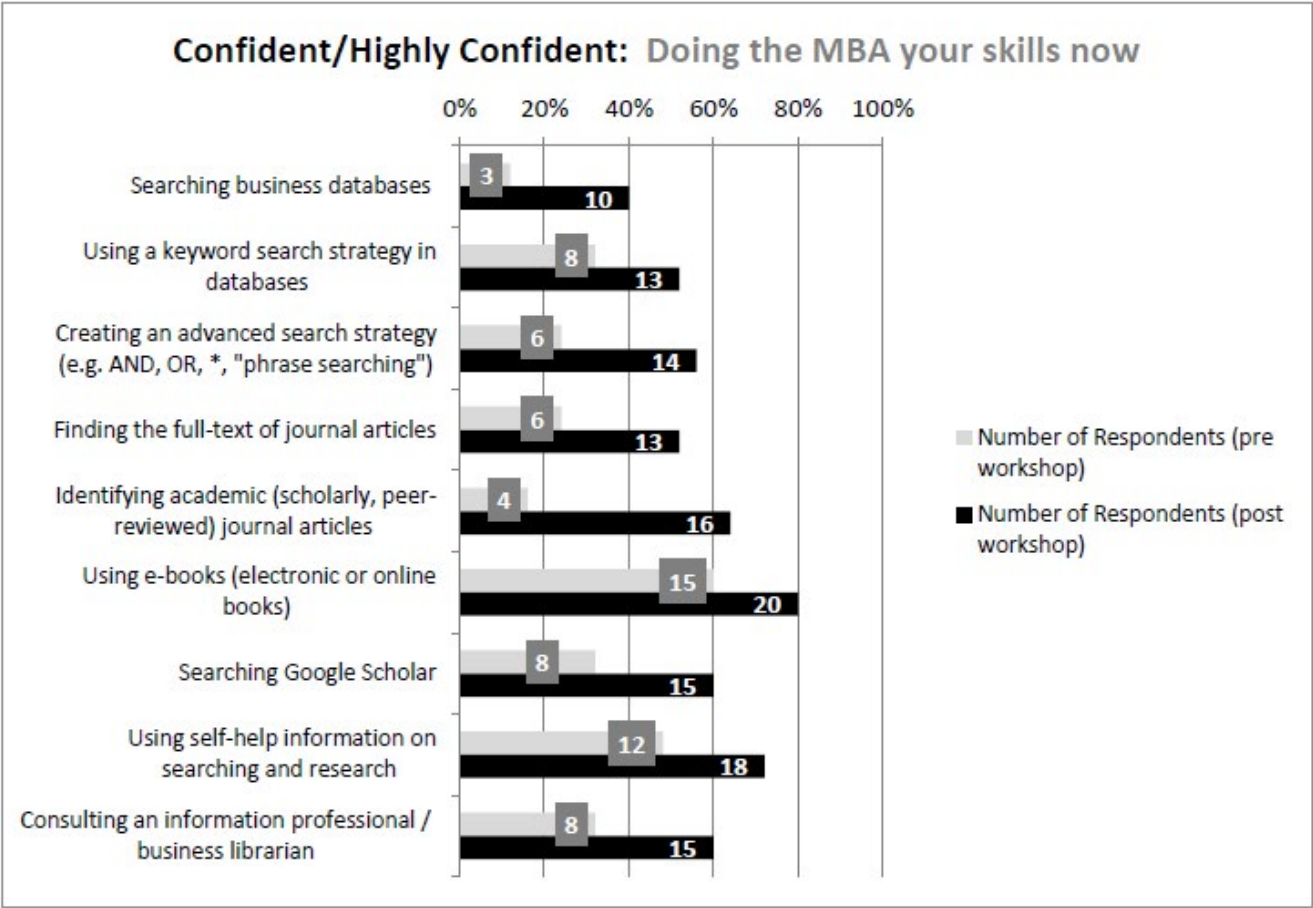


Table 4 Doing the MBA: Your skills now. confident and highly confident with research skills.

Doing the MBA: Your Skills Now	Never used	#	Not confident at all	#	Some confidence	#	Confident	#	Highly confident	#	Total
Searching business databases	12%	3	8%	2	40%	10	32%	8	8%	2	25
Consulting an information professional / business librarian.	12%	3	8%	2	20%	5	40%	10	20%	5	25
Using a keyword search strategy in databases	4%	1	4%	1	40%	10	32%	8	20%	5	25
Creating an advanced search strategy (e.g. AND, OR, *, "phrase searches")	0%	0	8%	2	36%	9	40%	10	16%	4	25
Finding the full-text of journal articles	0%	0	4%	1	44%	11	28%	7	24%	6	25
Identifying academic (scholarly, peer-reviewed) journal articles	0%	0	8%	2	28%	7	40%	10	24%	6	25
Using e-books (electronic or online books)	0%	0	4%	1	16%	4	48%	12	32%	8	25
Searching Google Scholar	0%	0	12%	3	28%	7	32%	8	28%	7	25
Using self-help information on searching and research	0%	0	0%	0	28%	7	48%	12	24%	6	25

Table 5 Doing the MBA: your skills now.

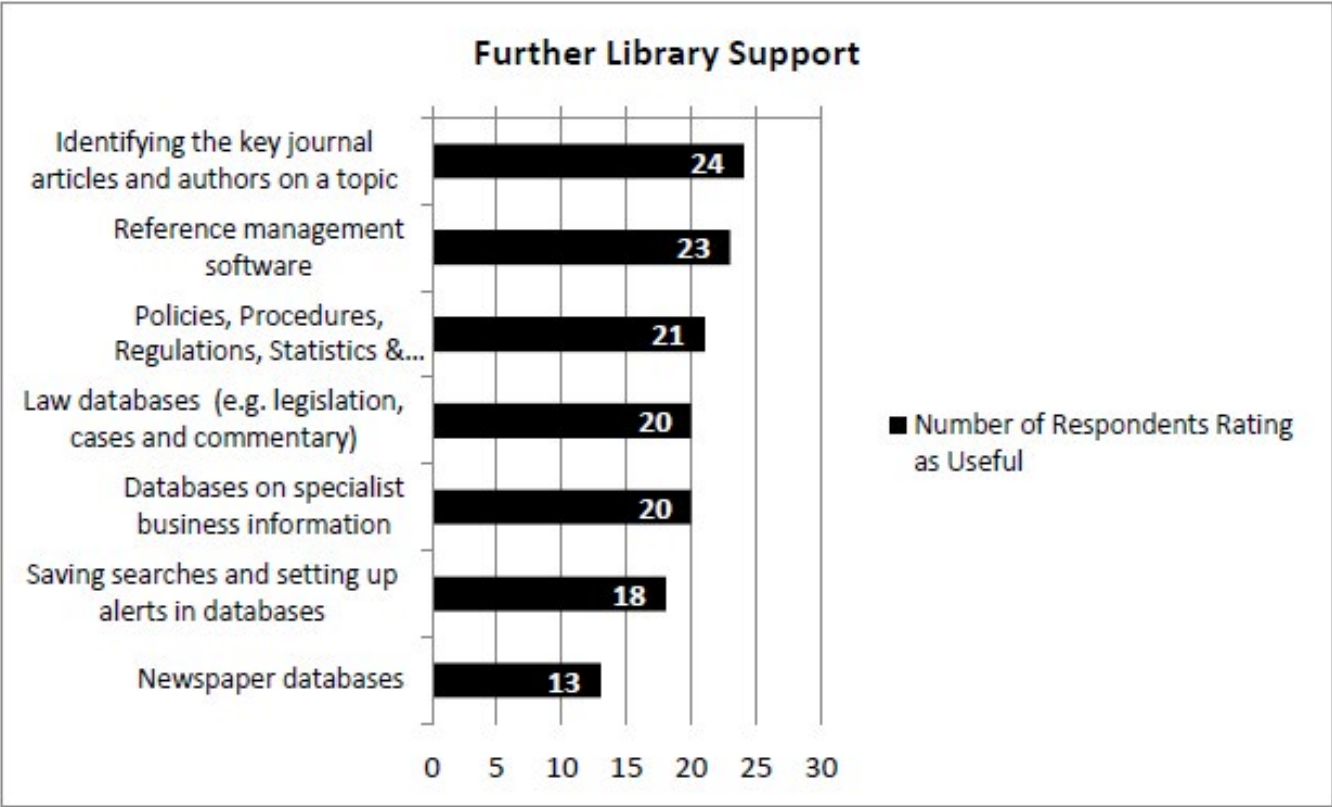


Table 6 Further library support: Rated as useful

- for:
- Access to library support
 - Links to Library resources in Moodle
 - Online seminars
 - Library question & answer forums
- In regards to the types of access to further support that would be useful (see Table 7), the top ranking responses were

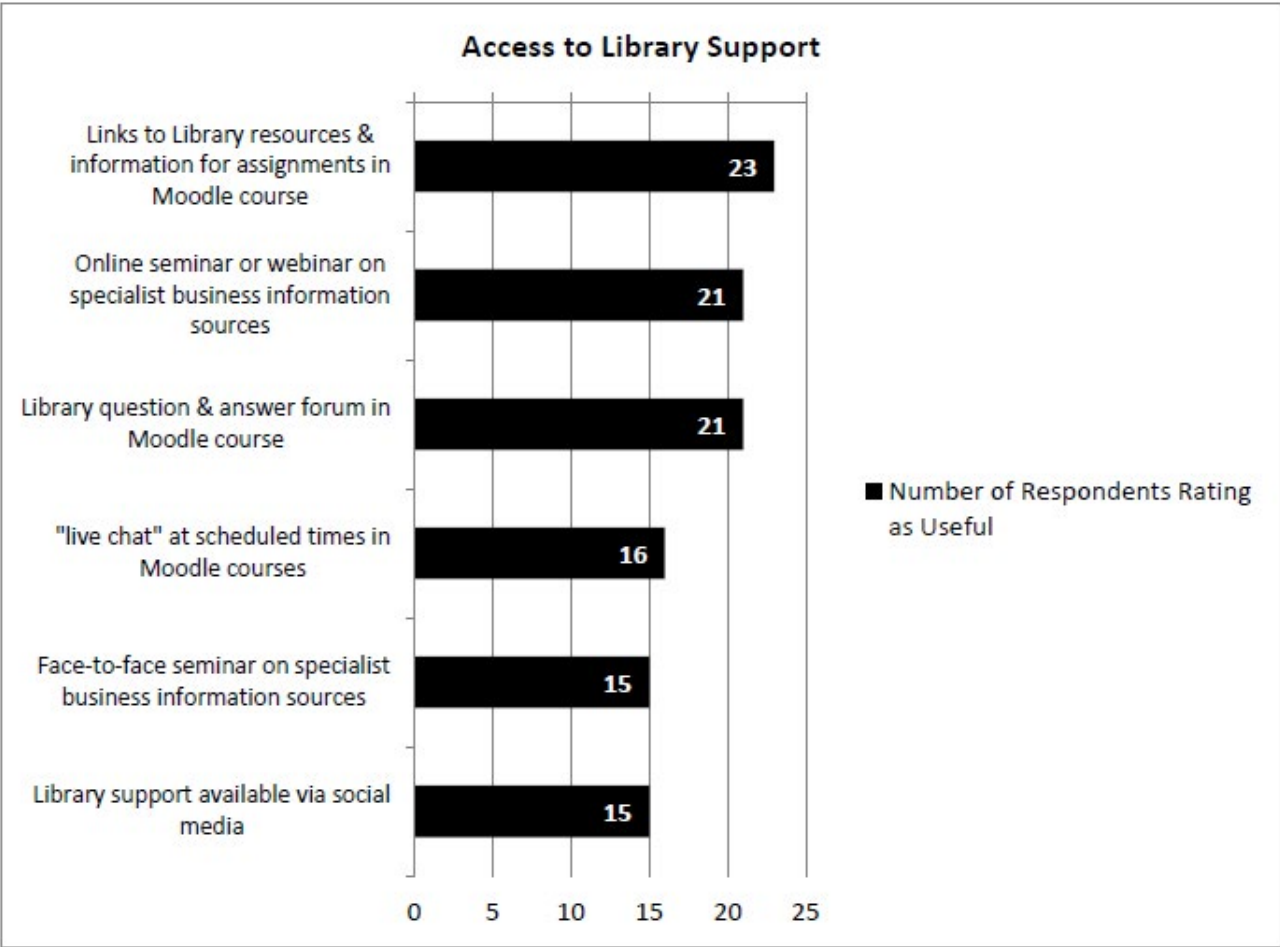


Table 7 Access to library support: rated as useful

- Comments
- Survey participants' comments helped to identify gaps in

the support that is currently offered and also highlight things to be aware of when designing and delivering workshops or support material for these students:

ANY FINAL COMMENTS?

We really appreciate any further comments or suggestions you may have!

For example: Is there anything else....

- **about your experience using Massey University Library?**
- **you would like the library to consider when designing or delivering library workshops for the MBA programme?**

If you do online training (or indeed any training) you need to remember that we're managers and professionals. So it's important not to talk down to us or treat us like kids. :)

Stream [Moodle] is a bit ... at times, in a day and age that information comes to you the fact that your stream does not tell you when new items are loaded etc is not great, I would pick a format that put information in peoples inbox, that is why I signed up to webinars and stuff.

these above would really help.

Further comments or suggestions

For example: Is there anything else.....

- Would be good to get a top 3 tips email or stream [Moodle] post from the library for each course (eg marketing, economics) which helps our research efforts.*
- Hold the MBA face to face courses on campus so that we can access the library after class*
- The hour provided at orientation was a joke, far more time should have been spent covering the library. I have been very impressed with the service received so far, have had personal help with Endnote, books arrive faster than any online shop! Email responses very good, very impressed with this aspect.*
- Online support would be great!*
- I think the book issue system for MBA students is amazing and easy. Its fantastic that you include the return address labels and remind me when my books need to be renewed or returned. Amazing system and it makes my life so easy. Thank you*
- any help and support would be appreciated. I would love the library to design and deliver workshops online directed at MBA students.*

Discussion

- Transition to postgraduate study

Traditionally, evaluation studies do separate pre- and post-tests to measure whether the learning outcomes have been achieved. Often these evaluations are done close to the time of the intervention being measured (before or after a class). This study differs in that it engages with students 3 months and 15 months after a library class, asking them to reflect on their experiences and confidence levels before the MBA and now. Combining the pre and post-test questions into one survey provided an opportunity to measure changes in patterns of information-seeking behaviour, and confidence levels against specific skills covered in the "one-shot" library session. The survey included "don't remember", "don't know" and "never used" in the scaling, as well as free text questions, soliciting students' experiences and suggestions.

Overall the findings indicate that the "one-shot" library workshop at orientation was an effective way to begin supporting students in their transition to postgraduate studies. All students remembered attending the workshop, and most students gained some confidence in research activities. A noticeable increase in confidence levels was for identifying academic (scholarly, peer reviewed) journal articles. For example, before the workshop four respondents (16%) indicated they were confident/highly confident, compared with the 16 respondents (64%) after the workshop. Confidence levels were also higher for: Creating an advanced search strategy; Searching business databases; Searching Google Scholar; and Finding full-text of journal articles. The areas

that were lowest pre-MBA show the greatest change. This is not surprising in some ways as they offered the most room for improvement. The high increase in confidence with Google Scholar was interesting given there was high reported confidence pre the MBA. This may indicate it is a used as a key resource with additional practice driving their confidence.

Areas of least change were:

- using ebooks
- using self-help

Again the using ebooks and self-help were areas that many students were already confident in before starting MBA.

- Do they use the skills gained in the first year?

The "Never Used" and "Not Confident At All" responses reduced considerably post workshop, and the increase in "Confident" and "Highly Confident" responses post workshop indicates that students are making use of these core information literacy skills. However, it is concerning that students who selected "never used" or "not confident at all" before starting the MBA did not gain enough from the 50 minute workshop to feel confident in those research activities. In addition, the high interest in all the suggested information literacy skills and information resources for further support indicates that the one-shot orientation session is not sufficient to meet all the students' needs, and that more work needs to be done to integrate this into their programme.

- Further teaching and support needed during the first year of study

The 2016 cohort responses provided an insight into their

need for library support after 3 months of study; the higher response rate has enabled the library team to make specific recommendations for immediate action. The 2015 cohort was in a unique position to share reflections and recommendations based on their experience of one and half years in the MBA programme and their need for library support before graduating. The survey presentation to this cohort generated interest, positive informal feedback, and requests for individual support.

A very clear message from all the students who responded to the survey is that further embedded and discipline specific library support is needed. The students rated all suggestions for further assistance and all methods of delivering this highly. Interestingly, even students who identified as highly confident responded they wanted further library support in specific areas. This suggests that a high confidence level is not an indicator that library support is not needed. Therefore in terms of designing workshops and services, the needs of students at all levels of confidence should be considered. This provides more evidence for the idea of supplying a range of modes for intervention, and the preference for online support is in line with business students’ ease with electronic technology (Simon, 2009). In regards to developing online information literacy tutorials, Gunn and Miree (2012) recommend that different instructional designs are explored in collaboration with academic staff.

- Limitations and innovation

The lower response rate from the 2015 cohort to the online survey meant that there was not enough data in this sample to make recommendations specifically for the needs of students in year two of study 6 months before graduation. A different approach to the timing of the survey, and the method could be considered for this group. For example, the survey was launched just prior to their overseas study tour. A student from the 2015 cohort also suggested that an incentive be included, for example, that a “prize draw” for completing the survey be offered.

The data collected in this research has proved useful in establishing the type of training and support needed, as well as the preferred mode of delivery. Based on these findings future workshops will aim to include:

- Using a pre-workshop survey, so that classes can be tailored to students’ research needs and interests.
- At orientation, offering “streams” where students can select the level of workshop they wish to cover: beginner, refresher, or advanced.
- Using a “flipped class” approach (Sherrow, Lang, & Corbett, 2016), so that students focus more on active experiential learning (Hesseldenz, 2012).

Further environmental scanning, including networking with business librarians in the workplace and the tertiary education sector, will be explored. Suggested areas for further study are:

- support for the transition of graduates as they return their focus to the workplace
- expectations of employers in regards to information literacy and research skills of new MBA graduates.

Conclusion

This paper has presented a case study of an evaluation of a “one-shot” library workshop. The results of this research provide a starting point for developing embedded, discipline specific library services in the MBA programme. Findings from the online survey helped to increase understanding of executive MBA students, not only the demographic information, but also the wide range of information skills and experience with resources within a cohort. Library workshops that include active learning are in line with the discourse-based pedagogy used in the MBA programme, described by Kevany (2013) as “drawing on students experience to develop in-class learning”. Having a better understanding of the diversity of pre workshop information literacy skills will enable better learning outcomes for the students, and assist in planning for future workshops. Ideally this is now also an opportunity to undertake a pre workshop exercise to tailor workshop content to better match overall class ability and to provide additional activities to challenge those with information literacy searching and evaluation skills (Kriflik & Kriflik, 2006).

Research findings have been discussed with the MBA Director and there is support for including information literacy support within the two year programme papers. It is recommended that the existing face-to-face workshop be retained at orientation. A further workshop and online support are now in development for the first year course papers research requirements at “point of need”.

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References

Cooper, R. G. (2008). Perspective: The Stage-Gate® idea-to-launch process—update, what’s new, and NexGen systems*.

Journal of Product Innovation Management, 25(3), 213-232. doi: 10.1111/j.1540-5885.2008.00296.x

Cooper, R. G. (2014). What’s Next? After Stage-Gate.

Research Technology Management, 57(1), 20-31.

Cullen, A. (2013). Using the case method to Introduce information skill development in the MBA curriculum. *Journal of Business & Finance Librarianship*, 18(3), 208-232. doi:10.1080/08963568.2013.795740

Gunn, M., & Miree, C. E. (2012). Business information literacy teaching at different academic levels: An exploration of skills and implications for instructional design. *Journal of Information Literacy*, 6(1), 18-34. Retrieved from <https://ojs.lboro.ac.uk>

Head, A. J., Van Hoeck, M., Eschler, J., & Fullerton, S. (2013). What information competencies matter in today’s workplace? *Library & Information Research*. Retrieved from www.lirg-journal.org.uk

Hesseldenz, P. (2012). Information literacy and the evolving MBA degree. *Journal of Business & Finance Librarianship*. 17, 287-299.

Hsieh, M. L., & Holden, H. A. (2010). The effectiveness of a university’s single-session information literacy instruction. *Reference Services Review*, 38, 458-473. doi:10.1108/00907321011070937

Kevany, K. (2013). Rich offerings; Student feedback; MBA guide 2014. *NZ Business*, 27(8), 24-31.

Kriflik, G. K., & Kriflik, L. (2006). Integrating information literacy to enhance post-graduate learning. *International Journal of Learning*, 13(1), 129-141.

Merz, B.H., & Mark, B.L. (2002). Assessment in College Library instruction programs. Chicago, IL: Association of College and Research Libraries.

Mallon, M. N. (2014). Librarian in the boardroom: Outreach strategies for an executive MBA program. *Journal of Business & Finance Librarianship*, 19(1), 15-31. doi:10.1080/08963568.2013.825225

Massey University. (2016). *About the Massey University MBA* <http://www.massey.ac.nz/massey/learning/colleges/college-business/mba-and-executive-education/mba-programme/about-the-massey-mba/about-the-massey-mba-home.cfm>

Massey University Library (2006) *Massey University Library Information Literacy Core Competencies*. Retrieved

from Information Literacy at Massey University Library website <http://www.massey.ac.nz/massey/research/library/about-us/information-literacy/information-literacy-home.cfm>

Mery, Y., Newby, J., & Peng, K. (2012). Why one-shot information literacy sessions are not the future of instruction: A case for online credit courses. *College & Research Libraries*, 73(4), 366-377.

Nimer, M. (2009). The doctoral cohort models: Increasing opportunities for success. *College Studies Journal*. 43(4), 1372-1379.

Petit, F. (2011). Rethinking executive MBA programs. *MIT Sloan Management Review*, 53(1), 19-20. Retrieved from <http://sloanreview.mit.edu>

Quinn, T., & Leligdon, L. (2014). Executive MBA students’ information skills and knowledge: Discovering the difference Between work and academics. *Journal of Business & Finance Librarianship*, 19(3), 234-255. doi:10.1080/08963568.2014.916540

Ruth, D.W. (2016). What is your MBA for? What’s the story? *Management Learning*. Advance online publication. doi:10.1177/1350507616646302

Sherrow, T., Lang, B., & Corbett, R. (2016). The Flipped Class. *Business & Professional Communication Quarterly*, 79(2), 207-216. doi:10.1177/2329490615614840

Simon, C. (2009). Graduate business students and business information literacy: A novel approach. *Journal of Business & Finance Librarianship*, 14(3), 248-267. doi:10.1080/08963560802361981

Slavin, L. C. (2015). Library services online: Introducing library services for online MBA classes. *Journal of Library and Information Services in Distance Learning*, 9(3), 221-229. doi:10.1080/1533290X.2015.1023879

Spievak, E. R., & Hayes-Bohanan, P. (2013). Just enough of a good thing: Indications of long-term efficacy in one-shot library instruction. *Journal of Academic Librarianship*, 39(6), 488-499. doi:10.1016/j.acalib.2013.08.013

Stagg, A., & Kimmins, L. (2014). First year in higher education (FYHE) and the coursework post-graduate student. *Journal of Academic Librarianship*, 40, 142-151. doi:10.1016/j.acalib.2014.02.005

APPENDIX ONE – Survey Questions

SECTION 1: Student Information: Voluntary section

For the purposes of designing our library sessions to meet your needs, the following demographic information would be much appreciated.

Gender

☐ Male

☐ Female

Age

- ☐ 20 - 29
☐ 30 - 39
☐ 40 - 49
☐ 50 - 59
☐ 60 +

Which ethnic groups do you belong to? Please select all that apply to you:

- ☐ NZ European/Pakeha
☐ Māori
☐ Cook Islands Maori
☐ African
☐ Chinese
☐ Indian
☐ Korean
☐ Middle Eastern
☐ Niuean
☐ Samoan
☐ Tongan
☐ Other. Please state: e.g. Dutch, Japanese, Tokelauan _____

Prior study completed

- ☐ Undergraduate degree
☐ Postgraduate degree
☐ Other. Please state: e.g. Certificate _____

Number of years working as a manager

- ☐ None
☐ Less than 1
☐ 1 - 3
☐ 3 - 5
☐ 5 - 10
☐ 10 - 15
☐ 15 +

SECTION 2: BEFORE YOU STARTED YOUR MBA...

Thinking about your research skills and experience BEFORE you enrolled for the MBA Programme, please indicate your confidence level with each of the following:

	Never used	Not confident at all	Some confidence	Confident	Highly confident
BEFORE the MBA: Searching business databases (e.g. Factiva, Bloomberg, Business Source Complete, ABI Inform)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Using a keyword search strategy in databases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Creating an advanced search strategy (e.g. AND, OR, *, "phrase searching")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Finding the full-text of journal articles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Identifying academic (scholarly, peer-reviewed) journal articles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Using e-books (electronic or online books)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Searching Google Scholar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Using self-help information on searching and research (e.g. webinars, online demonstrations & videos, webpages, books, blogs, pamphlets)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEFORE the MBA: Consulting an information professional / business librarian (e.g. Research consultation, phone / email, online meeting)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please add your comments.

For example, Is there anything else you would like to add about your research skills and experience, BEFORE you enrolled for the MBA programme? Your past experiences using a library or literature searching?

SECTION 3: DOING THE MBA: YOUR SKILLS NOW...

When did you start the MBA?

- ☐ February 2015
☐ February 2016
☐ Other: _____

Did you attend the library workshop at your MBA orientation?

- ☐ Don't remember
☐ No
☐ Yes

At the library workshop during the MBA orientation, the following topics were covered:

- Overview of resources and services at Massey University Library
- Creating a search strategy for a research topic
- Finding and evaluating journal articles, including peer-reviewed sources

Thinking about your research skills and experience NOW, please indicate your confidence level with each of the following:

	Never used	Not confident at all	Some confidence	Confident	Highly confident
NOW: Searching business databases (e.g. Factiva, Bloomberg, Business Source Complete, ABI Inform)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NOW: Using a keyword search strategy in databases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NOW: Creating an advanced search strategy (e.g. AND, OR, *, "phrase searching")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NOW: Finding the full-text of journal articles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NOW: Identifying academic (scholarly, peer-reviewed) journal articles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NOW: Using e-books (electronic or online books)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NOW: Searching Google Scholar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NOW: Using self-help information on searching and research (e.g. webinars, online demonstrations & videos, webpages, books, blogs, pamphlets)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NOW: Consulting an information professional / business librarian (e.g. Research consultation, phone / email, online meeting - Connect)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please add your comments. For example, Is there anything else you would like to add about your research skills and experience NOW? Your experiences using of Massey University Library or literature searching this year?

SECTION 4 - FURTHER LIBRARY SUPPORT

When doing my assignments, research project or literature review - it would be useful to have further advice, support, or training in the following areas:

	Don't know	Not useful	Yes, this would be useful
Databases on specialist business information (e.g. company, industry, market data & analysis)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Newspaper databases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Law databases (e.g. legislation, cases and commentary)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identifying the key journal articles and authors on a topic (i.e. highly influential works)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Saving searches and setting up alerts in databases (e.g. using online tools to keep up-to-date on your research topic)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reference management software (e.g. EndNote)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Policies, Procedures, Regulations, Statistics & Reports: technical, research & annual. ("Grey literature" material produced by governments, corporations & organisations)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please add your comments / suggestions. For example, further support or training?

SECTION 5 - ACCESS TO LIBRARY SUPPORT

When doing my assignments, research project or literature review - the following would be useful:

	Don't know	Not useful	Yes, this would be useful
Links to Library resources and information for assignments in Stream courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Library question & answer forum in Stream courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Live chat" at scheduled times in Stream courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online Seminar or webinar on specialist business information sources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Face-to-face seminar on specialist business information sources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Library support available via social media (Facebook, Twitter, blog, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please add your comments / suggestions.

ANY FINAL COMMENTS?

We really appreciate any further comments or suggestions you may have!

For example: Is there anything else....

- about your experience using Massey University Library?
- you would like the library to consider when designing or delivering library workshops for the MBA programme?