PhD Students in the Humanities: Understanding the Information Behaviour of Graduate Information Literacy Course Participants

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Abstract. The study examines whether an information literacy module/course is an appropriate method of intervention during the initial months of a humanities PhD, and if there is more that can be learned from the course participants that might provide a better understanding of their information behaviour. This can enable the Library to further develop its approach to supporting them. Despite the relatively generic nature of the PG6009 module, and the diversity of humanities research, the course had clear benefits for the participants. The study confirmed that first year is a time when PhD researchers in the humanities are scoping and changing topics. The participants reported that the most appropriate time to attend this module is during the initial months of the PhD. Some preferred to attend particular units later as stand-alone workshops. There is scope for further one-to-one contact with librarians and additional follow-up sessions on specific topics.
Keywords: information literacy, information behaviour, PhD students, humanities, generic skills

1. Background:

University College Cork Library has been providing an accredited and assessed information literacy module (five ECTS) as part of the University's structured PhD programmes since 2008. The course was originally devised through partnership between the libraries of University College Cork, NUIGalway, and Trinity College Dublin. Since then, UCC Library has continued to develop the module, delivering it up to four times per year. In its original format the module consisted of six compulsory units, at the end of which participants are required to submit a reflective essay. Delivery is through face-to-face workshops, backed-up by tailor-made online material. The module benefits from valuable support from the Dean of Graduate Studies and forms part of the structured PhD programmes within the university, as well as being available to all postgraduate researchers in UCC.

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Each of the units within the module is delivered by a different member of the Library staff, and there is valuable input from academics. The presenters have always placed great value on feedback from participants, both through end-of-unit feedback forms and through focus groups. In response to feedback the module is now run as a block (over four days), but also through a series of workshops. Using this flexible approach, researchers are more likely to be able to attend units at times that suit their needs.

At the outset the module content was compiled primarily with a Science, Engineering and Health Sciences audience in mind. In 2011 the content was re-imagined for the purposes of delivering it to PhDs within the College of Arts, Celtic Studies and Social Sciences. Each unit was re-worked to some degree to cater for this audience, and a new unit on using Irish archives for research was introduced, as well as new content on effective use of the web for research. The course now comprises fifteen hours class-contact time in addition to substantial online support material. Assessment is by means of a reflective essay.

Content for the 7 units is as follows: Unit 1: 'Research Resource Discovery' (including effective database searching), Unit 2: 'Using the Web Effectively and Evaluating Research Results' (including a section on bibliometrics), Unit 3: 'Tracking Down Results and Keeping Up-to-Date', Unit 4: 'Managing your Information' (using 'Endnote'), Unit 5 'Ethics in Using Information', Unit 6: 'Publishing and Disseminating your Research' (including open access publishing), Unit 7: 'Using Archives for Research in Ireland' (this unit is optional).

This study uses the module as a conduit through which the information seeking needs and behaviour of first year humanities PhD students can be examined and better understood. This can inform how librarians can better support fourth-level humanities researchers, not just in terms of adapting the module further, but by suggesting other possible interventions. The research is novel, as it is based around an established and accredited PhD module that has already been adapted in various ways in terms of content and timing of delivery. Drawing on Kuhlthau's (1991) 'Information Search Process' the study seeks a deeper understanding of a specific group during the initial months of their PhD research.

2. Literature review:

Few studies have looked at generic information literacy courses for Phd students, although Secker and Macrae-Gibson (2010) provide a good overview of a six-week course. Heading at al.(2010) report on two three-hour sessions aimed at doctoral students, specifically focussing on finding and managing information. Other generic courses described in the literature (but not aimed at PhD students) include Daugman et al.(2011), Mayer and Bowles-Terry (2013), Toth (2005) and O'Clair (2013).

A lack of research into the information practices of PhD students has been noted e.g. Fleming-May and Yuro(2009),Patterson (2009), and the Research Information Network (2008). In the U.K., Streatfield et al. (2010) point to a renewed interest in this area. Pinto et al.(2012)offer a review of research on

information literacy as applied to doctoral students. Catalano's (2013) systematic review of the information behaviour of graduate students emphasises the differences between masters and doctoral students. lack of research into the information seeking needs/behaviours of humanities graduate students in particular has been noted by Barrett (2005).A thorough literature review of the information behaviour of humanities scholars has been provided by Case (2012, p. 297).

An image of the humanities scholar working alone, adopting a variety of approaches to finding material, was portrayed by Stone (1982), however the importance of a professional network was suggested by Watson-Boone (1994). In the UK, the Research Information Network(2011) described a 'richness and variety' within information practices in the humanities, with increased levels of collaboration, and increased use of technology. The report highlights the tendency of humanities researchers to use a wide range of resources, moving 'seamlessly between them' (p.7).

The importance of serendipity in humanities research has been highlighted by Allen & Nigel (2003), and also with particular regard to historical research by Duff and Johnson (2002) and Quan-Haase and Martin (2012).Other studies have referred to the wide variety of source material and the often complex nature of humanities research e.g. Toms and O'Brien (2008), Puckett (2010), Rimmer al. (2008), Barrett (2005). An examination of subject-specific studies reveals the diversity of information practices across the humanities e.g. music research has been examined by Dougan (2012) and Brown (2002), information practices in art history by Larkin (2010) and Beaudoin (2005), and the research of historians by Tibbo (2003) and Rhee (2012).

Although Catalano's (2013) review study could not find agreement on consistent information behaviours among humanities researchers, Barrett (2005) suggests that humanities graduate students do share common approaches to research and 'tend to initiate research projects in haphazard, serendipitous ways'(p. 330). Research supervisors are key. Librarians should be aware of differing needs at different stages of the research. In the context of digital resources in the humanities Warwick et al.(2008) support the view that humanities researchers need a wide range of resources and claim that this is still true in a digital environment. Personal knowledge and face-to-face meetings are still valued.

Looking beyond the humanities, George et al.'s(2006)multidisciplinary study, focussing on graduate students, indicated 'random motions of information seeking' when choosing an area of focus and a search strategy. People play a central role in graduate students' searching and finding information. Rempel's (2010) study, focussing mainly on Master's students, reveals a 'lack of a single path through the literature review research process'. Students had difficulty scoping their project. This supports Bruce (2001) who highlighted the challenges faced by 'neophyte' graduate students attempting to deal with the scope of their literature review during the early stages.

Problems with information literacy skills among postgraduates have been identified in recent studies by Conway (2011), Blignaut and Els (2010) and Chu

and Law (2007). In an Irish study Patterson (2009) identified wide variation in information literacy 'within and across disciplines'. The Research Information Network (2011) highlighted a need for training humanities researchers in how to use new tools to facilitate their research.

Streatfield et al. (2010) report on the findings of the Research Information Network's (2008) report in the U.K. and suggest that, in terms of training and support for researchers, libraries face difficult choices e.g. whether to opt for training-based approaches or other means such as embedding librarians in research teams, and whether to concentrate on department/faculty-based training or direct support to researchers. A JISC/British Library (2012) report surveyed over 17,000 doctoral students in the U.K. and found that training for research work and for information use is an area of dissatisfaction among 'Generation Y' doctoral students. Their preference is for face-to-face support while generic training is often considered unsuitable. The report questions whether doctoral students are being properly equipped to navigate their way through the variety of research materials that are now available.

Fleming-May and Yuro (2009) found that social sciences doctoral researchers were sceptical of 'drop-in' library instruction sessions and general library workshops. The relationship with a faculty mentor was important and the library must become known in order to have an impact. Research is needed into the 'zones of intervention' particular to PhD study. Barrett (2005) too suggests that it would be a 'profitable approach' for libraries to think in terms of 'zones of intervention' by recognising 'patterns in humanities graduate student research behaviour' (p. 330). Likewise Rempel (2010) refers to 'zones of intervention' targeted and tailored to meet the particular needs of researchers.

From a Swedish perspective Haglund and Olsson (2008)identify the importance of personalized solutions that provide young researchers with 'what they actually want rather than what we think they want' (p.58). Macauley and Green(2007) caution against librarians viewing doctoral students as being 'information literacy deficient' (p. 73) and assuming that all require information literacy interventions. They emphasise dialogue and one-on-one interactions as a way of connecting with postgraduate learners. Bawden and Robinson (2009) point to the complexity of information behaviour, and that a deeper understanding is essential in order to move beyond a 'library-centric' view of information literacy (p.187).

Kulthua's (1991) 'Information Search Process' has particular relevance to this study. The process involves an individual seeking meaning in the course of seeking information. They experience uncertainty and vagueness at the outset ('initiation' stage), followed by feelings of optimism during the 'selection' stage. The third stage, 'exploration' ,is often marked by confusion and doubt as the individual attempts to become orientated and sufficiently informed to focus their topic. The fourth stage, 'formulation', involves a sharper, clearer focus, and increased confidence. The fifth stage is 'collection' followed by stage six 'presentation'. The final stage is 'assessment' of what has been achieved. Uncertainty is a key concept, and 'zones of intervention' (Kuhlthua, 1994) are areas in which an information user requires assistance to enable them to

progress their task.   Interventions outside this zone are unnecessary, and potentially overwhelming.

3.   Research question

On the evidence of the literature review ,the information seeking requirements of humanities researchers can be diverse, with particular challenges at the outset. People tend to play an important role, particularly the research supervisor. The library can play a part once it makes itself known. A number of studies have underlined the value of potential 'zones of intervention', encouraging librarians to recognize patterns in humanities graduate student research behaviour at particular stages in order to provide key services to targeted groups. There appears to be a lack of consensus on whether interventions should be on a one-to-one basis, with services tailored to individual needs, or if generic courses have a worthwhile role, especially in regard to support for humanities research. Thus the research question emerges: is a generic information literacy module an appropriate method of intervention in the initial months of a humanities PhD? What can we learn from the course participants that will give us a better understanding of their information behaviour in order that the Library can improve its approach to supporting them?

4.   Methodology

A questionnaire was distributed to all PG6009 participants at the beginning of October 2012,prior to their attending the module. This set out to examine general perceptions regarding their PhD, their research topic, and how they intend to meet their information needs. During February 2013 a second questionnaire was distributed to those who had completed the module. This questionnaire was also distributed to second year Phd students who had attended the module during their first year. Interviewswere conducted with six of the participants in order to gain a richer understanding of how their information seeking needs had evolved over the first few months of their PhD. The interview technique was influenced by Dervin's'sense-making methodology' which uses the idea of 'gap' as being central to its methodological foundation (1992). The students were asked to describe the greatest challenges and obstaclesthey encountered during the initial months, how they bridged those gaps, and what helped (or did not help) them to "make sense" of their situation. The transcripts were coded and examined alongside the data yielded by the questionnaires.

5.   Results
5.1. Surveys

Twenty five new PhD students responded to the initial questionnaire. None of the respondents indicated that they felt 'very confident' about the literature search but nine(36%) indicated that they felt 'confident'. Another nine (36%) were 'somewhat confident', while six (24%) were 'not that confident' and one was 'not at all confident'. Fifteen (60%) claimed to be either 'fully decided 'or 'close to fully decided 'on their research topic. Seven (28%) were 'somewhat

decided', and three (12%) were 'not really decided' (see Figure 1). No one indicated that they were 'very aware' of the information sources they were likely to use, but fifteen (60%) claimed they had 'a good idea' of the sources. Five (20%) indicated they had 'some idea' of the sources, while another five were either 'not too sure', or 'not at all sure'. While one student claimed to be 'very confident' in using the sources, eleven (44%) indicated they were' confident'. Six (24%) were 'somewhat confident', and seven (28%) were either 'a bit unsure', or 'not at all sure' of using the sources.
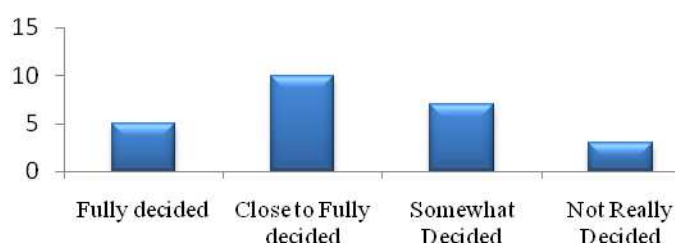
Figure 1. To what extent do you feel you have decided on your research topic/question

Respondents were asked to suggest the people, groups/departments/organisations they thought might offer them some support during the literature search process. Eighteen of the twenty five responded to this question. Supervisors were mentioned by seven in total, four mentioning them first. Library or library staff were mentioned in nine of the responses, but because the questionnaire was provided by a librarian this figure may be unreliable. Other lecturers and academics were mentioned by seven respondents, while fellow students were mentioned just twice. Also included were 'people who teach generic modules', 'IT support', local historians and societies, as well as some national organisations.

Respondents appeared to be reasonably confident in their ability to critically evaluate information sources: three (12%) claimed they could do so 'very well', thirteen (52%)claimed to be able to do so 'well', five (20%)'neither well nor badly', four (16%) 'not well'. Regarding their ability to manage information four (16%) said they could do so 'very well', five(20%) 'well', twelve (48%) 'not well nor badly', four (16%)'not well'. The respondents appeared less sure about their ability to keep up-to-date with the latest research in their area, seventeen (68%) indicated that they had not yet developed an effective approach to doing so.

The second questionnaire was sent to humanities students who had completed PG6009. In total twenty students completed the questionnaire. This survey was sent only to students who had attended the entire module.

One respondent said that his/her research topic had changed 'a lot', eleven said it had changed 'somewhat' (55%), five (25%) said 'not a lot', three (15%)

said 'not at all' (See Figure 2).When asked how aware they had been (at the beginning of the PhD) of the information sources they are now using, one said he/she had been 'very aware', twelve (60%) were 'aware', six (30%) were 'not that aware', and one said they were 'not at all aware'.
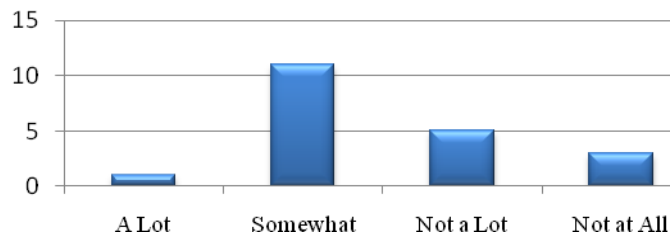
Figure 2: To what extent has your research topic changed since the beginning of your PhD?

Students were asked what major obstacles(in regard to the literature search) they had faced during the initial months. Eight of them made some reference to difficulties with scope, focus and narrowing their topic. Six respondents mentioned issues with regard to searching and finding good information, two mentioned managing information, while two referred to issues relating to time management. Other obstacles were: keeping up-to-date with research, technology, knowing more about archives, language skills, understanding philosophical frameworks, and knowing what other skills would be needed.

When asked what helped them most during that period seven mentioned PG6009, six referred to their supervisor, and six referred to other courses they had attended. Four mentioned self-reliance, four mentioned other students, and three mentioned library staff. One respondent mentioned the web and another mentioned funding information.

When asked how helpful they had found PG6009, thirteen (65%)said 'very helpful', seven (35%) found it 'helpful' (Figure 3). The respondents were asked to rank the various aspects of the module in order of usefulness, and the outcome was: 1. Research resource discovery, 2. Evaluating information, 3. Using the web effectively, 4. Bibliometrics,5. Keeping–up-to-date, 6. Managing information,7. Getting published,8. Open access,9. Research ethics. (The archives unit was not included as it was optional).
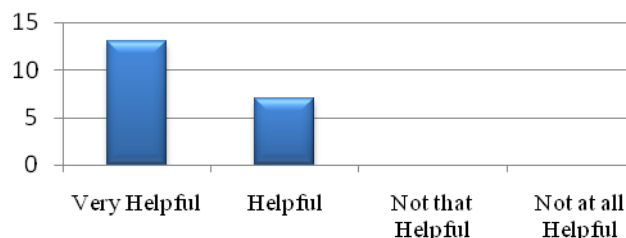
<u>Figure 3:</u> How Helpful was the PG6009?

When asked to comment on the timing of the module all twenty respondents indicated that first year is an appropriate time to attend the course. Six mentioned that a flexible approach, providing the option of block delivery and workshops was suitable, while five mentioned that follow-up sessions later would also be useful.

In regard to method of delivery, eight(40%) indicated that they preferred face-to-face only, twelve (60%) preferred face-to-face plus course content online. No one would have preferred an online-only delivery.

When asked if there is more that the library can do for PhD students six (of nineteen respondents to this question) indicated that they are happy with what the library currently provides and could not suggest anything further. Seven suggested further sessions later-on would be helpful, while one mentioned splitting some of the units into two parts. Examples for new topics suggested were: new databases, preservation, Zotero, primary sources from other countries, writing and journalism. Three said that one-to-one assistance from specific librarians would be useful. (Other items mentioned: access to more databases and more books in the Library).

5.2. Interviews

In many ways the interviews confirmed the findings of the questionnaires, but also offered some fresh perspectives. In terms of the major gaps/challenges that the participants faced during the first few months, a number of related themes were evident. One such theme was that, at the outset, researchers are not aware of everything that they will need to know and unlike a Masters programme, this is something the participants had to, in many cases, figure out themselves (in the unique context of their own project). Many decisions have to be made regarding which structured modules, courses and workshops to attend. They must try to sequence their work and their attendance in an optimal way. It appears that there was a degree of serendipity even in courses/workshops they chose, and what they learned at these. One student suggested that this *'may be all part of the literature review process'*. Some of the participants admitted to rushing-into some aspects of their research:

'I did a lot of work before I even started, but in another way it didn't help because I wasn't that ready, and I shouldn't have been trying to do that really, and I did all of that without much help from technology'

while another said:

'I think I had got stuck into it, but I didn't realise that I needed to do a load of preparation before I could get stuck into it. I didn't really know what I was doing; I kind of rushed into it'

Another (related) theme was that the interviewees each portrayed themselves as being, in some respects, different to other PhDs at the beginning. They were coming to their PhD from a wide variety of backgrounds and each seemed to have experienced a certain degree of insecurity or anxiety when constructing an understanding of what being a PhD student means. It appears that this gap is often bridged, in part, through informal channels, and through meeting other students at courses and conferences etc. For example, one student spoke of the challenge of having to *'work out how you are supposed to be a PhD student…you find information from people who are further down the road'*

Another interviewee stated:

'I thought PhDs had two heads and I was amazed when I started going to conferences and stuff and meeting people who are doing PhDs and they were fairly normal, so then I realised that it was within my grasp'

In this way attending courses like PG6009, or other events, offers PhD students an opportunity to interact. As one interviewee put it:

'When I attended the modules I met very nice people …. one of them was very much towards presenting at conferences and so on and she kind of inspired me really'

Technology was a recurring theme, and this was bound-up with the challenge of finding out what they need to know, and trying to sequence their research and attendance at appropriate courses and workshops. For example one interviewee stated that:

'For me the biggest thing were the technologies that I'm going to be using for part of the PhD, and understanding what was out there, and understanding what was going to be relevant to the PhD itself'

Another student said:

'I'd prefer to have more technical training up-front because the research can come later, if you know what you want to do you need to have the technical grounding first of all'

In regard to the PG6009 module, it was again clear that the first term was a suitable time, but the option of attending workshops later is also important:

'It was a really good time to run it in the first term, because even if like me you're not using all the tools right from the start, you know they exist and at what point you need to bring them in'

Another said:

'The timing is always different for different people isn't it? Even now if you offered me the whole module again I'd probably go'

and another stated:

'I started in January and the workshops ran almost immediately so it was most beneficial, so I really didn't face any obstacle, but had the module been at a later stage I would have been struggling'

Another common thread concerned the module content. The interviewees were very positive about this and it was clear that even if they may have known some of the content, they appreciated hearing things again, and from a different angle.

'to be honest there were some bits I already knew but I think if you're doing a course like that you've got to cater to everyone and I didn't get bored, I found it interesting……. there are other angles and different ways of searching that maybe I didn't know about'

6. Discussion

Each PhD researcher is on their own path of discovery, becoming experts in their chosen research area. Each has their own information needs and sources, and there may be many potential 'zones of intervention'.

Among the participants of this study, there were varying levels of confidence at the beginning of the research process, and substantial variation in the extent to which they had decided on their research topics. This extended to how aware they perceived themselves to be of the information sources they were likely to need. The interviews revealed that at the formal start-date some students were at a slightly later point in the research process, having prepared some of the work before formally commencing their programme. It is interesting that most of the participants found that their topic changed to some degree during the initial months (only 15% indicated that it did not change at all). It is important for the library not to make assumptions about PhD students' level of preparedness, and to be aware that they are working through a process during the initial months. It is significant that 40% of the students (who took the second questionnaire) said they had not been aware of the information sources they were to use later.

With reference to Kuhlthua's 'Information Search Process' it appears that the students who completed the first questionnaire in early October were either at the initiation or the selection stage of their research, which may explain the variety of confidence levels. It is likely that the exploration stage, for many of the participants, coincided with the delivery of the module in November and January. In this way the timing of PG6009 should help participants become better equipped for the exploration stage of the research, building confidence in their ability to conduct a literature search, to hone their research topic, and develop confidence in their ability to become 'PhD researchers'. The interviews were held in April at a time when some of the participants appeared to be closer to the formulation and collection stages.

Clearly the tasks of scoping and focussing the research topic pose the foremost challenge during the initial months, and this corroborates the findings of the literature review (e.g. Bruce, 2001). Allied to this are challenges relating to searching and finding good information. The 'haphazard' nature of the early stages of humanities research, identified in the literature review (e.g. Barrett, 2005; George at al., 2006),appears to be borne out by the study, but what was interesting is that this 'lack of a single path' (Rempel, 2010) appears to extend beyond the literature search to include choice of courses, workshops, training, and the use of technology. The interviews demonstrated that some students rush

in to the research at the beginning without being fully aware of relevant sources and technologies (perhaps moving directly from selection to the collection stage). Trying to plan and sequence their research is a challenge, especially now that there are numerous modules and training courses available to PhD students. The value of serendipity in much of humanities research appears now also to extend to what may be learned during structured modules and other courses. In regard to technology and digital resources, the interviews suggested that students aren't always aware of what they need to know at the outset, and it takes some time to piece this together. This correlated with the findings of the Research Information Network (2011).Getting to grips with technology coincided with the other challenges: scoping the research, planning and sequencing the overall project. In turn these challenges come at a time and are part of the process of making sense of what it means to be a PhD researcher. There was a sense, from the interviews, that each participant was aware of the uniqueness of their own research, and what brought them as individuals to the PhD, and where they now 'fit in' as PhD students.

A lot depends on interventions from others; supervisors are key for some, but a variety of people play a part. The role of other students and researchers is important, as was their own self-reliance. It appears that the participants had not expected that the role of other students would be so influential. The interviews revealed how important this had been for some. PG6009 played an important role for the participants of this study, as did other courses that they attended. All of the participants found the module to be either good or very good. It is clear, therefore, that despite the relatively generic nature of the PG6009 module, and the wide range of humanities disciplines, this information literacy module had clear benefits for the students. Even if some aspects were not new to some participants, this was something they had expected of a generic module, and participants were happy to hear things covered from a new angle. It is perhaps significant that the topics that were most useful were those that helped them overcome their greatest challenges during the first year, i.e. searching, scoping and evaluating (resource discovery, using the web effectively, and evaluation of information).

The results show that the initial months of the PhD are a good time to deliver the module, but some flexibility is also valued, allowing students the option of attending some aspects at a later stage. The 'haphazard' nature of the initial research stages may mean that some will wish to revisit particular units later. If the research process is an iterative one, aspects of the module may be appropriate for some researchers at a later point, however the participants valued the awareness of resources early on. Once they are aware of the information, they can then attempt to understand how this fits within the evolving needs of their own research, helping them to make sense of their situation. Offering the module as a block and then repeating later in the year as a series of workshops is a suitable method of delivery, as it helps the students to integrate the module more easily into a potentially busy schedule. It is important for the library to let PhD students know that they are welcome to attend workshops again as refreshers. It is essential to continually seek feedback

in order to improve the module and to avoid what Bawden and Robinson (2009) refer to as a 'library-centric' approach. In addition, the Library should also be prepared to try new topics based on the feedback. It appears, from this study, that there is some demand for extra content. The workshop series format can accommodate this, as new workshops can be advertised together with the existing ones.

The face-to face nature of the delivery is clearly preferred, but the online content allows students to return to the topic at a time that suits. Because support from other researchers is important, courses like PG6009 offer the opportunity to meet other researchers. For the librarians who teach the module, having direct contact with the researchers, even in a classroom situation provides invaluable feedback. The PG6009 module assessment is by way of a reflective essay, where the students must apply each unit of the module to their own research topic. All of the librarians who teach the module are involved in the assignment stage, and reading the essays enhances our understanding of the research process and offers a deeper understanding of researcher information needs.

Suggestions for improving research support included one-to-one meetings with librarians; however the majority of students did not indicate this as a priority. The literature review questioned if methods such as embedding library staff in research teams, and promoting one-to-one personalised support to researchers may be the optimal approach. Demand for this didn't come through strongly enough in this study, and it might be argued that attending the module/workshops, and becoming aware of different librarians (with different expertise e.g. Subject Librarians, Archivists, Institutional Repository Manager etc.) might be sufficient. Researchers can then be encouraged to make contact with specific librarians at a later stage when the need arises. It might be that one-to-one sessions, particularly at the wrong stage, might prove inefficient in some cases. By making itself known, the Library enhance sits role in supporting research, helping to reduce anxiety and potentially decrease attrition rates. Barrett (2005) emphasises the importance of librarians increasing their profile and relevance as a way of investing themselves in the research habits of future humanities faculty members. For this to succeed it is vital that the course content is continually reviewed, and updated, based on feedback. Offering extra research workshops beyond the module units may also prove beneficial.

7. Conclusions

Despite the relatively generic nature of the PG6009 module, and the diversity of humanities research (as evidenced through the literature review), the course had clear benefits for the participants. The study confirmed that the first year is a time when PhD researchers in the humanities are scoping and amending topics. Learning how to narrow their topic, find and manage quality information poses a challenge, as are issues relating to technology. Planning and sequencing their research and their attendance at seminars, training and courses can be difficult at a time when they are making sense of what it means to be a Phd researcher. A variety of people play a crucial role in helping them to bridge

these initial gaps, and there appears to be space for the Library the play a fruitful role. The participants reported that the most appropriate time to attend PG6009 is during the initial months of the PhD. Some preferred to attend particular units later as stand-alone workshops, or have the option of repeating particular topics, and this should be encouraged. The most valued elements of the module included resource discovery, effective use of the web, and critical appraisal. Face-to-face delivery is valued. There is scope for providing additional follow-up sessions on specific topics, and it is critical that the library continues to gauge reaction to content, and amend the course as appropriate. There is some potential for encouraging further one-to-one contact with librarians but it may not be something that all PhD students require as a priority. A direct benefit of the module is that researchers develop an understanding of the potential of the Library. Likewise, the librarians teaching PG6009 are gaining a greater insight into the work of PhD students, their information practices as researchers, and how they cope in the first year.

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