

## Reflections on an embedded librarianship approach: the challenge of developing disciplinary expertise in a new subject area

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### Abstract

Embedded librarianship has emerged as a user-centred approach to academic library services, requiring an in-depth understanding of the education and research priorities of students and staff. User-centred approaches require the development of disciplinary expertise and engagement with the research culture of a particular subject area. This paper details the author's experiences in situating his practice within the discipline of pharmacy and discusses some of the challenges around the scale and sustainability of such specialised support. Regardless of the extent to which a librarian is 'embedded', they must see themselves as learners, too, as they develop their understanding of the disciplines they support through an ongoing process of experiencing, reflecting, conceptualising and testing in their practice.

**Keywords:** Embedded librarianship, academic libraries, information literacy, situated information literacy, information practices, experiential learning

### Implications for practice

In order to embed information literacy within a disciplinary context, the following points require careful consideration:

- Close engagement with academic staff, not just in their teaching but through learning about their research activities and experiences as practitioners in their field
- Close engagement with the discipline itself, which includes understanding the terminology and research culture, and also how graduates will engage with information in their future work
- A reflexive approach to instructional design, reconceptualising information literacy from the perspective of the discipline and developing training that connects to both academic and professional practice
- Scaffolding learning experiences across years and levels, to ensure that information literacy skills build progressively and are seen as core competencies that are developed over time

### Introduction

The role of the academic librarian is constantly evolving as a result of shifting priorities and opportunities at institutional and global levels. Current responsibilities generally include some aspect of information literacy (IL) training, support for research and other scholarly activities, distance and online learning support, instructional teaching in classrooms, and

more (Abrizah, Inuwa & Afiqah-Izzati, 2016). Some academic libraries have aimed to address these seemingly competing priorities by replacing traditional subject-based roles with new structures around functions or services, though depending on the context, this can lead to a loss of close relationships with faculty members (Hoodless & Pinfield, 2016). Regardless, it would appear that librarians are often required to juggle many more types of roles and responsibilities than ever before (Corrall, 2010).

As librarians have worked more closely with academic staff to support education and research, terms such as 'blended librarianship' or 'embedded librarianship' have become popular (Shank & Bell, 2011; Carlson & Kneale, 2011). Embedded librarianship differs from traditional librarian roles in its focus on working in partnership with clients, rather than simply providing a support service (Carlson & Kneale, 2011). In this sense, embedded librarianship is user-centred rather than library-centred and requires the librarian to develop a holistic understanding of the environment in which their client groups operate.

While there has been much scholarly activity around the characteristics of 'embeddedness' (Andrews, 2015; Drewes & Hoffman, 2010) and numerous case studies illustrating examples of faculty-librarian collaboration (Inuwa & Abrizah, 2018; Almeida & Pollack, 2017; Feiburger, Martin & Nuñez, 2016; Booth et al., 2015), few identify systematic ways of addressing the perceived divide between librarians and academic staff. This paper details the author's experiences in situating as an embedded librarian within a specific discipline area and discusses some of the challenges of this approach around the scale and sustainability of such specialised support. Regardless of the extent to which a librarian is 'situated', I argue that librarians must see themselves as learners, too, as they develop their understanding of the disciplines they support and engage in an ongoing process of experiencing, reflecting, conceptualising and testing in their practice.

## **Context**

The University of Sydney Library structures its liaison teams into discipline areas, with Academic Liaison Librarians responsible for outreach, education and research support. One of these teams supports medicine and health at the University, with staff responsible for a variety of subject areas including medicine, dentistry, nursing, pharmacy, and health sciences. I was assigned to the Sydney Pharmacy School.

I was new to the subject area when I took on the role, which meant that I was reliant on the training materials that had been put together by my predecessor. I adapted these materials to deliver my first IL training in the pharmacy degree programs. This allowed me to see how effective the current training was, and from that starting point, I could make gradual changes once I gained a greater understanding of the disciplinary context. Beyond minor changes to slide clarity and updates to screenshots, the lesson content remained almost identical. I've shared my experiences below using Kolb's four-stage cycle for learning, the 'Experiential Learning Cycle' (1984). The Learning Cycle encourages the learner, in this case, myself, to engage in an ongoing process of critical reflection on their practice.

## ***Concrete Experience***

My initial sessions were primarily delivered in a traditional 'one-shot' style, through lecture-based presentations with few interactive elements. Almost none of the training materials referred to specific assessment tasks or unit learning outcomes, meaning that they lacked a context within the units they were incorporated into. The sessions were 'embedded' in that they were timetabled and took place in the pharmacy building, but they were poorly timed and most took place in the first week of the semester. In one instance, where a session was

repeated for multiple tutorial groups, one of these was scheduled after the assessment task around which the session was designed, was actually due.

This lack of context meant that most training materials followed a one-size-fits-all approach, where students would be taken from locating background information and textbook chapters all the way to searching for primary evidence in a bibliographic database within the same hour. Most sessions ran over time and were overloaded with content. In some instances, students complained that they had already covered this content in their previous year. This was indeed the case. The training materials across the different years were largely identical, with little effort made to develop skills progressively over the years. Some sessions even used the same example question that students had looked at in the previous year.

This situation is, unfortunately, not uncommon. One-shot library sessions represent a limited or superficial faculty-librarian collaboration, where the librarian has little input on the course or assessment design in line with resources in the discipline. Students are often rushed through an overwhelming range of databases and tools in such sessions, without the necessary course context and framing to make these valuable resources relevant to their specific information needs (Gandhi, 2005). Aligning library classes to assessment tasks may seem an obvious route, but academic staff may be reluctant to commit to more than a general introductory session on information retrieval from a librarian, unwilling to lose time spent on course content or give up control in the classroom (Bowler & Street, 2008, p. 438). Without evidence to demonstrate that students have actually benefited from the session, IL classes are often the first to be cut from the semester's timetable to make way for additional coursework content.

### ***Reflective Observation***

My training materials had included few feedback mechanisms to ensure that student learning objectives had been achieved. Without a greater understanding of the link between the workshop content and the unit's assessment tasks, it was also hard for the academic to say whether the class had actually enhanced student performance. The presentation of the content was also not ideal. While lecture slides worked well for describing conceptual ideas, such as breaking down a research question or combining search concepts using boolean logic, they were less effective when it came to describing elements of the database interface. In these instances, it would have been more effective to 'go live' and show the database itself. Or better still, invite students to do so and report their experiences back to the class.

When meeting with academics to discuss their requirements for a library workshop, I was often told that covering last year's materials again would be suitable. Despite student feedback suggesting a need for change, academics showed a limited understanding of the library workshop content and likely hadn't considered how the session could align more to their assessment tasks and vision for the unit.

While information literacy as a construct is valued by librarians, the term's use remains largely restricted to the library and information science (LIS) field and might even be labelled undiscovered country for academics (McGuinness, 2006, p. 580). Academics often consider IL instruction as a service provided by the library and do not see librarians as partners, nor do they see the value in integrating course-specific IL training (Derakhshan & Singh, 2010). Booth et al. outline a list of common obstacles to successful IL instruction, including: 'teaching scenarios of limited duration (like the one-shot), lack of access to student coursework, little influence over course and assignment design, minimal faculty-librarian collaboration, and differing syllabi and assignment expectations across a unified program' (2015, p. 624).

Academics understood that connecting library sessions to assessment tasks would likely increase students' attention and their willingness to engage with the content, but these links were not always clear. As an 'outsider' to the unit, I often had limited information about the assessment and was unable to address specific questions about its requirements. A common perspective from LIS literature positions faculty as 'either apathetic or even deliberately obstructive towards their efforts to initiate joint instructional arrangements' (McGuinness, 2006, p. 574). On the other hand, academics are often seen as not truly valuing the library, and librarians, in turn, may view faculty as 'arrogantly ignorant of the functioning of the library, its personnel and its tools' (Badke, 2005, p. 69). While I would never describe my encounters with these academics as deliberately obstructive, there was certainly a disconnect between our approaches to supporting the pharmacy cohort.

### ***Abstract Conceptualisation***

I lacked sufficient disciplinary knowledge to truly situate my training materials within the pharmacy discipline, but equally, had limited opportunities to work with academics to address the relevancy of my content. Derakshan and Singh conducted a meta-synthesis investigating academic viewpoints towards the integration of information literacy into their curriculums. Their results suggest that 'although there are some models on information literacy instruction (e.g. Big Six model), they are written by librarians without any collaboration with academics' (2010, p. 225). Fortunately, a number of models for embedded librarianship have been proposed.

Bowler and Street outline a spectrum of embeddedness with 5 levels (2008, p. 442), from 'entry level', where the librarian might collaborate on assignment development and deliver a standalone IL session, to 'co-teaching', where the librarian co-teaches and develops discipline-specific course materials, lectures, assessment designs and grading in collaboration with academic staff. Their findings suggest that student performance is positively related to the level of librarian involvement, particularly when IL skills are directly acknowledged as a specific competency to be developed, in much the same way as disciplinary knowledge (2008, p. 443). Wu and Mi also propose a five-stage model, arguing that 'evidence of student learning outcomes and faculty research productivity' will contribute to greater levels of embeddedness (2013, p. 260). Farrell and Badke propose a phenomenographic interview methodology, where the librarian is positioned as a 'curricular consultant' (2015, p. 320) who invites faculty members to describe disciplinarity from an IL perspective. The CUNY model borrows from Lloyd's (2010) work on information landscapes, or situations, where practice takes place. A study by Guneskara and Gerts highlights the value of 'co-constructing information literacy instruction in [the] context of subject design and assessment design (2017, p. 402), necessitating close collaboration between librarians and academic staff. Hallam, Thomas and Beach illustrate that the library is not singularly responsible for developing information and digital literacies, and therefore, a collaborative approach involving a range of stakeholders including academic staff, learning designers, educational technologists and others is required (2018).

I had identified a need to better understand the information needs of pharmacy students, but in order to do this, I needed to build a greater understanding of the discipline itself. When meeting with academics to discuss how the sessions went, I asked about their own search practices and information needs when it came to consulting primary literature. Adapting Farrell and Badke's approach, I focused specifically on the context behind particular information needs. Through these interactions, I realised that there were significant differences between the types of information required, for example, by a pharmacist working at a local community pharmacy, compared to one working as part of a multidisciplinary healthcare team in a hospital.

The information needs of pharmacists are broadly similar to those of doctors and can be categorised into treatment (or therapy), diagnosis, or drug information (Davies, 2007). Drug information, including prescription information and pharmaceutical consulting (Kostagiolas, Aggelopoulou & Niakas, 2011), is of particular relevance to pharmacists. There were few opportunities where students would be required to consult primary literature, though this was the focus of almost all the IL training being delivered. Most students would actually be using resources such as drug dictionaries and point of care tools to complete their assessments.

### ***Active Experimentation***

Negotiating updates to workshop materials, in consultation with academic staff, led to many positive changes to my teaching approach. I modified my training to relate more closely to assessments and included specific references to unit learning outcomes and task descriptions. Through this mapping exercise, I moved a training session from Year 3 to Year 2, as its previous arrangement had meant that it was being taught too late in the program.

Gaining input into assessment outlines meant that training materials could be more closely aligned and consistent with the demands of the assessment tasks. I could also suggest incorporating links to specifically relevant library resources, whereas previously the outline had simply referred students to the library website.

For one unit, I asked academic staff to provide clinical scenarios for an activity. Rather than a librarian-designed activity where students simply located a drug monograph and answered questions based on the information available, they were instead required to interpret that information and complement it with additional sources to counsel a hypothetical patient. This enabled students to make the connection between library resources and their own clinical decision-making. In another unit, students were required to develop a scientific poster and had to map the types of information required to the different sections of the poster. Even small changes, such as providing links to various industry bodies in a broader discussion around locating background information, were not obvious without the disciplinary framing and insights provided by the academic.

Engaging with academic staff also had a number of tangible benefits: a greater number of PhD students were referred to me for research consultations, I began to attend the school's teaching and research retreats, and I had further involvement in research activities across the school including co-authorship opportunities.

### **Discussion**

The experiences reported here highlight the value of developing an understanding of the information needs of specific disciplines, as well as the advantages to be gained by working more closely with academic staff. However, level of engagement will likely differ depending on disciplinary cultures, and some academics may ultimately choose not to involve their librarians in course development at all.

A highly embedded approach presents a challenge, though. Librarians may not be well-equipped to engage in outreach work and may face unwilling staff who are not prepared to invite them into their work. It can also be challenging to commit to such an involved approach if a liaison librarian's role necessitates they deliver services in both the research and education spaces. There are also issues around the sustainability of such bespoke services, particularly with such large client groups and varied needs. How embedded should a liaison librarian be? Does the greatest value come from becoming embedded in a discipline as specific as pharmacy, or is it sufficient to generalise IL training across medicine and health more broadly?

## Conclusion

Based on the experiences outlined in this article, I argue that librarians need to develop their understanding of the information practices within the disciplines they support. Without library staff developing a disciplinary lens to enable two-way communication, academic staff are unlikely to truly understand the value that the library and librarians can provide for them and their students. The extent to which a librarian can be embedded within a discipline will depend on their local context and resources. In the context of IL training, such involvement will offer students an opportunity to authentically experience the ways in which they will engage with information as professionals in their chosen field. Librarians must work closely with academic staff to design learning experiences, not teaching IL as a general concept, but instead, IL embedded within discipline-specific information practices.

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## References

- Abrizah, A., Inuwa, S., & Afiqah-Izzati, N. (2016). Systematic literature review informing LIS professionals on embedding librarianship roles. *The Journal of Academic Librarianship*, 42(6), 636-643.
- Almeida, N., & Pollack, J. (2017). In Bed with the Library: A Critical Exploration of Embedded Librarianship at the City University of New York. *Communications in Information Literacy*, 11(1), 122-146.
- Andrews, C. R. (2015). Embedded librarianship: Best practices explored and redefined. *International Journal of Educational Organization and Leadership*, 22(2), 1-14.
- Badke, W. B. (2005). Can't get no respect: Helping faculty to understand the educational power of information literacy. *The Reference Librarian*, 43(89-90), 63-80.
- Booth, C., Lowe, M. S., Tagge, N., & Stone, S. M. (2015). Degrees of impact: Analyzing the effects of progressive librarian course collaborations on student performance. *College & Research Libraries*, 76(5), 623-651.
- Bowler, M., & Street, K. (2008). Investigating the efficacy of embedment: Experiments in information literacy integration. *Reference Services Review*, 36(4), 438-449.

Carlson, J., & Kneale, R. (2011). Embedded librarianship in the research context: Navigating new waters. *College & Research Libraries News*, 72(3), 167-170.

Corrall, S. (2010). Educating the academic librarian as a blended professional: a review and case study. *Library Management*, 31(8/9), 567-593.

Davies, K. (2007). The information-seeking behaviour of doctors: a review of the evidence. *Health Information & Libraries Journal*, 24(2), 78-94.

Derakhshan, M., & Singh, D. (2011). Integration of information literacy into the curriculum: a meta-synthesis. *Library Review*, 60(3), 218-229.

Drewes, K., & Hoffman, N. (2010). Academic embedded librarianship: An introduction. *Public Services Quarterly*, 6(2-3), 75-82.

Farrell, R., & Badke, W. (2015). Situating information literacy in the disciplines: A practical and systematic approach for academic librarians. *Reference Services Review*, 43(2), 319-340.

Freiburger, G., Martin, J. R., & Nuñez, A. V. (2016). An embedded librarian program: Eight years on. *Medical Reference Services Quarterly*, 35(4), 388-396.

Gandhi, S. (2005). Faculty-librarian collaboration to assess the effectiveness of a five-session library instruction model. *Community & Junior College Libraries*, 12(4), 15-48.

Gunasekara, C., & Gerts, C. (2017). Enabling Authentic Assessment: The Essential Role of Information Literacy. *Journal of the Australian Library and Information Association*, 66(4), 393-405.

Hallam, G., Thomas, A., & Beach, B. (2018). Creating a Connected Future Through Information and Digital Literacy: Strategic Directions at The University of Queensland Library. *Journal of the Australian Library and Information Association*, 67(1), 42-54.

Hoodless, C., & Pinfield, S. (2016). Subject vs. functional: Should subject librarians be replaced by functional specialists in academic libraries?. *Journal of Librarianship and Information Science*, 50(4), 345-360.

Inuwa, S., & Abrizah, A. (2018). Embedded Librarianship in Research in Nigerian Universities: Practices and Sources of Practice Knowledge. *The Journal of Academic Librarianship*, 44(6), 738-746.

Kolb, D. A. (1984). *Experiential Learning: Experience as The Source of Learning and Development*. Englewood Cliffs, NJ: PrenticeHall.

Kostagiolas, P. A., Aggelopoulou, V. A., & Niakas, D. (2011). A study of the information seeking behaviour of hospital pharmacists: empirical evidence from Greece. *Health Information & Libraries Journal*, 28(4), 302-312.

Lloyd, A. (2010). *Information Literacy Landscapes: Information literacy in education, workplace and everyday contexts*. Oxford: Chandos Publishing.

McGuinness, C. (2006). What faculty think—exploring the barriers to information literacy development in undergraduate education. *The Journal of Academic Librarianship*, 32(6), 573-582.

Shank, J. D., & Bell, S. (2011). Blended librarianship: [Re]Envisioning the role of librarian as educator in the digital information age. *Reference & User Services Quarterly*, 51(2), 105.

Wu, L., & Mi, M. (2013). Sustaining librarian vitality: embedded librarianship model for health sciences libraries. *Medical Reference Services Quarterly*, 32(3), 257-265.