Article

McCluskey, C. 2013. Being an embedded research librarian: supporting research by being a researcher. *Journal of Information Literacy*, 7(2), pp. 4-14.
http://dx.doi.org/10.11645/7.2.1815

Being an embedded research librarian: supporting research by being a researcher

Clare McCluskey, Academic Liaison Librarian, York St John University. Email: c.mccluskey@yorksj.ac.uk

Abstract

This article outlines an action research investigation into the role of an academic librarian in the UK Higher Education (HE) sector. It is the view of the author that a key way of supporting research as a librarian is to engage in the practice oneself, to partake in knowledge creation rather than simply providing information. It investigates the notion of the embedded librarian in relation to research support via a literature review. It then uses data recordings from meetings of the Higher Education Action Research in Teaching (HEART) group at York St John University, of which the librarian is a member, to provide evidence to support the idea that sharing expertise in such an arena also provides information literacy (IL) support to researchers. The theoretical basis employed is that of communities of practice (Wenger 1998), as it is the assertion of the author that all members of the said group are part of a community of practice, based upon shared aims of improving pedagogic practice.

This article is based on a paper presented at LILAC 2012.

_____

1. Introduction

1.1 Identification of issue

This research centres on the concern that the librarian in higher education (HE) is not viewed as an academic; but primarily working in a supportive role. This assumption leads to the belief that the role concentrates on service delivery, rather than knowledge creation. It could instead be asserted that the role of a librarian in HE is academic and that information professionals have much to offer in the research arena, especially in contributing to new pedagogic knowledge.
There is a perception that the role of the librarian in HE is often seen only as an information-giving role; to order resources, provide the routes to these and show users the processes by which they can be accessed (McCluskey 2011). A restricted view such as this denies users and librarians themselves the chance to realise their capacity to build new knowledge, especially in the research arena. McNicol (2004, p. 119) takes the view that "within the library and information profession, research is largely an untapped resource." and advocates that librarians disseminate practitioner research in order to narrow the practice-research gap.

1.2 The role of the librarian

There is therefore a concern to be addressed regarding the identity of the librarian, related to participation in the institutions in which they work. This type of concern is identified by McNiff (2012, pp. 129-130)

> I am especially interested in how to move away from identity as a stable 'thing' … and understand it more as the formation of a 'self' who is in the process of development according to their own intents, values and purposes.

By participation and practice, librarians can contribute to a re-evaluation of the identity assigned to librarians by themselves and by others. One possible route to this is to identify opportunities to share knowledge, and learn from others', across the institution in which the librarian works and by sharing this experience with the wider HE community.

Furthermore, it is also a concern that HE librarians themselves do not view themselves as academics. The concept of embedded librarianship links the promotion of the role of librarian to an academic pursuit; that librarians in HE are educators, as are those in other sectors.

As identified in Article 19 of the Universal Declaration of Human Rights (United Nations, 1948), information literacy (IL) is vital;

> Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

So IL is not only a concern in HE; it is much wider than that. Everyone should have the ability to exercise their capacity for independent knowledge creation, in company with others. A key resource in information searching in the early twenty-first century is the internet and an assumption is emerging that people only need to know how to use the technology which allows access to the internet to be able to find knowledge there.

The CIBER report (2008) and the Committee of Inquiry into the changing learner experience (2009) show that this is not the case. A key message of the latter report states:

> Information literacies – including searching, retrieving and critically evaluating information from a range of appropriate sources and also attributing it – represent a significant and growing deficit area. (p. 24)

It is therefore recommended that higher education institutions (HEIs) ensure that researchers receive adequate IL training (pp. 41-42).

Librarians are trained to understand the information landscape and it is their professional duty to keep informed about its development. This training can be used in combination with the subject expertise of researchers to co-create knowledge, i.e. embedded librarianship. Embedded librarianship "takes a librarian out of the context of the traditional library and places him or her in…a setting…that enables close coordination and collaboration with researchers or teaching faculty" (Carlson & Kneale 2011, p. 167).

2. Context

The context within which this study takes place is that of the UK HE sector, particularly in relation to how the library and librarians contribute to IL teaching and research. A review of the current literature highlights key issues of where embedded librarianship is situated presently, in relation to research. These issues can be summarised as:

1. The embedded librarian is still an emerging concept in the research arena
2. Even when a librarian is an integral part of a research team, it is in the areas of information searching and management, rather than as a researcher him/herself
3. Practitioner (or action) research is still rare in library publications

2.1 The embedded librarian

The concept of embedded librarianship has been explored in relation to the academic curriculum for undergraduates and IL by several practitioners (e.g. McGuinness 2007, Hardy & Corrall 2007). This research has advocated making information skills, and the librarian delivering them, part of

the academic team. There has also been recent research into the concept of building IL partnerships between academics and librarians to this end (McCluskey 2011) and promoting the concept of practitioner research engagement in the field of librarianship (Hall 2010, Joint 2005). Indeed Hall (2010, p.85) advocates that LIS practitioners seek out opportunities to team up with more experienced academics. However, there is little research into embedded librarianship in research groups, with it described as "an emerging model" by Carlson & Kneale (2011, p. 170) and with many variations and levels of embeddedness. These levels range from librarians helping to collate data over the course of a project and helping to make it available for others to use; putting in joint funding bids with members of faculty for a specific project; or aiding a number of projects by searching for literature and helping to disseminate the final outcome.

The author has already explored the idea of the embedded librarian in practice, especially in promoting IL partnerships between library and faculty (McCluskey 2011b). This study focused upon members of each of these two groups understanding each other's roles and identifying common areas of concern and interest in relation to the students' experiences of information searching, retrieval and evaluation and asserted that it is the duty of librarians to show that preparation, appraisal and evaluation are key attributes in becoming a confident information searcher and knowledge seeker. This, therefore, gives researchers relevant skills to work effectively and productively within the information landscape as it stands at that moment in time. Furthermore, it fosters an enquiring approach, which will serve them well in adjusting to the inevitable changes in this area (changes such as getting to grips with debates on open access publishing, and choosing their preferred methods of dissemination, for example).

2.2   Librarians and research

The embedded librarian as an emerging concept is covered by a recent key paper focusing upon the role of academic subject librarians in relation to the skills they require to support research. Auckland (2012, p. 2) asserts that:

> To date, Subject Librarians have supported the needs of researchers through relatively traditional services revolving around information discovery, collection development and some elements of information management.

But then provides evidence to indicate that

> A shift can be seen which takes Subject Librarians into a world beyond information discovery and management, collection development and information literacy training, to one in which they play a much greater part in the research process and in particular the management, curation and preservation of research data, and in scholarly communication and the effective dissemination of research outputs. (p. 4)

At no point in Auckland's (2012) paper is the notion of a librarian in a research group undertaking his/her own research mentioned; the librarian is in a support role even in the examples given where he/she is considered part of a research team.

2.3   Practitioner research

A further barrier to librarians becoming researchers is evident in the view taken of the gap between practitioners and researchers in the library and information area by Joint (2005, p. 289); "LIS research is an empirical form of investigation – but of an applied, practical and…useful variety". Joint recommends that library practitioners collaborate with LIS empirical researchers, rather than viewing practitioner research and collaboration with practitioner/action researchers from other arenas as a valuable endeavour.

Embedded librarianship in relation to research is investigated more thoroughly by Carlson and Kneal (2011, p. 167).

> *Increasingly, librarians at research-based institutions are applying the embedded librarian model in working directly with the faculty they serve as collaborators on research projects or as an integral part of the research team.*

The word integral is important as it views the librarian as a key partner and that such initiatives are beneficial to all involved, "embedding yourself in a team outside of the traditional boundaries of the library is not taking you away from your day job so much as redefining it and expanding the influence of libraries" (p. 168) and putting forward the notion that a network of trusted colleagues is of great value. Nevertheless, examples given of this model still see the librarian in an information support role, describing the librarian as one who serves and advising that he or she should "develop relationships with faculty through identifying *their* particular research needs pertaining to information resources…librarians then *respond* to these needs" (p. 168, author's italics).

Special libraries, in the corporate arena, have been more proactive and entrepreneurial in regards to embedded librarianship and research. Shumaker and Talley (2010) promote this model as a way of demonstrating the value of librarians and see relationship-building skills as vital. In this, it could be inferred that this immediately puts the librarian on an equal footing with research partners.

A more inclusive approach to the librarian as part of a HE research group is highlighted by Gannon-Leary and Bent (2010), particularly in regard to writing for publication, with recommendations for a community of writer groups being set up in the library. They assert that library and information staff, "need an in-depth understanding of the Writing for Publication process" (p. 27) and that "By participating in conferences and similar events, LIS staff may build up networks, meet editors and gain publicity."(p. 35). However, they still refer to librarians as predominantly supporting, rather than carrying out, research, even when attending such events.

Hall (2010) recognises this tension, even noting that "the title research librarian...(is) understood as a role that centres on assisting others in conducting research, rather than one where the core work is research in the domain of librarianship." (p84) and that "one way by which less-confident practitioner researchers might start to engage in research is to seek partners or mentors." (p. 85). Feather (2009, p.180) gives further credence to this approach, stating "The problem – if it is a problem– lies in the interactions with professional practitioners and the occasional failure of both sides to recognize their differing priorities as well as the community of interest with each other." This view is the closest found in the current literature that supports the idea of a research group whereby values and expertise can be shared in a 'safe' environment (i.e. a community of practice) and it is this recommendation which provides the impetus for this study.

3. Purpose of the study

The focus of this project is to research the role and responsibilities of liaison librarians in HE, using an action research approach that enables practitioners to engage with questions of the form 'How do I/we improve my/our practices?'(Whitehead 1989). Such engagement enables researchers to produce descriptions and explanations for theorising individual and collective practices: In this case, the author strives to develop partnerships with academics, other librarians, and students. These partnerships provide sites for new forms of institutional research that show how a librarian can contribute to new relational practices that are grounded in collaborative institutional networking. They also show how librarians contribute to new thinking about the potential contributions of library staff across disciplines and sectors.

3.1   Methodology

This article presents evidence in relation to the author's membership of the Higher Education Action Research in Teaching (HEART) group at York St John University, providing accounts of the members of the group. The members of this group range from very experienced researchers to those embarking upon research for the first time (including librarians), all with a common interest in

teaching and pedagogy and acting as a validation group for action research. The evidence suggests that a fruitful relationship in supporting research as a librarian can be achieved by collaborating with a research group whereby the expertise and experiences of those from a range of backgrounds can be shared (i.e. embedded).

The action research approach with first person enquiry was chosen, as the author did not wish to be removed from the progress, or outcomes, of the study. The reasons behind the research include improving the practice of the author and to establish what a librarian in this institution can do to improve the learning experiences of fellow members of the university. By doing this piece of research, other members of relevant communities (i.e. librarians, staff in HE and all members of the institution in question) are supplied with evidence to help inform their own practice, in turn. However, it is the practice and values of the author which inform and drive this study.

Values become the criteria against which the validity of the evidence can be measured. The values used in this study are: critical engagement; participation; partnerships; and cross-curricula understanding, which the author believes are vital to providing researchers with the information skills to which they are entitled in order to carry out their work effectively in the information society. These values also come to act as living standards of judgement as they emerge through practice (McNiff & Whitehead 2006). The research documented here uses data from recordings of meetings of the HEART group as a basis for this. The recordings were used with full permission of the members, in accordance with the institution's research ethics guidelines.

3.2   Theoretical framework

The theoretical framework within which this research is placed is that of Wenger's Communities of Practice. He asserts that learning is a fundamentally social phenomenon and that mutual engagement is key to this:

> Practice does not exist in the abstract. It exists because people are engaged in actions whose meanings they negotiate with one another…Membership in a community of practice is therefore a matter of mutual engagement.
> (Wenger 1998, p. 73)

> Communities of practice are groups of people who share a concern or passion for something they do and learn how to do it better as they interact regularly.
> (Wenger 2006, p. 1)

Wenger asserts that there are three crucial characteristics in a community of practice:
1. The domain – a shared domain of interest and a commitment to this
2. The community – members partake in joint activities and discussions
3. The practice – members develop a shared repertoire of resources
    (Wenger 2006, pp. 1-2)

Reflecting upon this, it became apparent that what was lacking was effective communication between the library and faculty researchers, taking into account the aims and values of each other. Previous attempts to embed IL in the research curriculum had tended to be top-down, with little engagement with those carrying out or supervising projects. Communities of practice emerge from members having joint aims and values; therefore an investigation into whether faculty members and librarians shared aims and values was required.

Wenger (2009, p. 3) also asserts that social learning spaces influence the development of such communities:

> Commitment derives from identification with a shared domain of interest and with others who share that identification with the domain. There is enough continuity to develop a shared repertoire of language, concepts and communication tools that make practice

discussable. All this contributes to building relationships and trust that enable a joint inquiry into practice.

It is the assertion of this research that, in joining the HEART group and viewing it as a community of practice, the members have reached a point where relationships have been built and continue to evolve. Through this, values and expertise are shared and members are able to influence the learning of the other members in the area of information skills. It is a community of practice due to shared concerns regarding the improvement of pedagogic research and, therefore, teaching in this institution and beyond.

4. Actions taken

The initial action was joining the HEART group. In doing this, the author was able to discuss professional values with a group of fellow researchers. Since joining the research team, there have been four key research projects which have provided cycles of action research. Each of the projects has been discussed with the members of the group as critical friends and has allowed the author to present knowledge of IL and show the value of the role of the librarian in HE.

4.1   Stage 1: Presentation of research as a technique to promote librarians as partners in HE

This cycle of research focused upon initiating dialogue between the author and other members of faculty at YSJU. It was presented to a non-librarian audience, including other members of the group. The main issues highlighted in this were the importance of IL and a wish to develop partnerships between library and others in the institution. (McCluskey 2010a).

4.2   Stage 2: Presentation of research as part of a symposium with fellow HEART members

Taking place some months after stage 1, this cycle allowed the author to assert an increasing belief that librarians should be viewed as academics in HE. Taking part in a symposium with other members of the HEART group provided an opportunity to demonstrate a shared belief in all being partners in research and invite others to do the same. (McCluskey 2010b).

4.3   Stage 3: Presentation of research on building IL partnerships

This cycle was embarked upon with the intention of presenting to an audience of library and information professionals, with established interests and expertise in IL making it specific to a particular need and gap in the library literature. This was the first public dissemination of the research to the library community and enabled the author to link the specific concern of IL and the academic pursuit of pedagogic research for the first time in relation to this research. (McCluskey 2011a).

4.4   Stage 4: Publication of research on the creation of IL partnerships

This stage brought together all previous cycles in a peer reviewed publication. This gave the author the chance to report the critical analysis of an outside agency regarding the research to the HEART group and, therefore, explain more about the concept of IL and the SCONUL Seven Pillars, thereby sharing library professional knowledge with the group. (McCluskey 2011b).

Throughout this process recordings (audio and video) of meetings and presentations were kept.

5. Findings

Evidence has been generated by mapping data from recordings of meetings of the HEART group to the SCONUL Seven Pillars. A key model on IL for researchers is that designed by SCONUL

(2011). Their Seven Pillars approach has been used for many years and has recently been updated with a research lens; "This lens defines **skills and competencies** (ability) and **attitudes and behaviours** (understanding) which might be attributed to researchers in UK Higher Education." (p. 3)

Recordings of three separate HEART meetings were used to match statements from four specific members with each of the Seven Pillars in this model: identify; scope; plan; gather; evaluate; manage; and present. Each researcher has been allocated a unique identifier (A, B, C and D). In doing this, evidence is produced to suggest that the librarian has had some impact upon the learning experience of fellow researchers, in relation to IL.

5.1   Identify

A researcher is able to identify a need for information to address the research question

Key statement: *"What am I gathering evidence of?"* (Researcher A, HEART 2011a)

A discussion took place in this meeting regarding this researcher regaining focus in his project, specifically in the case of the literature review. The author was able to discuss the need to keep this focus in mind when approaching, and offer help in putting this into practice for, a literature review.

The value of cross-curricula understanding is evident here, as subject knowledge is shared. The researcher is able to explain the background to his project and the author, therefore, gains a greater understanding of the area of education involved in his day to day work. The author responds with expertise in IL and experience of the research process from a librarian's point of view.

5.2   Scope

A researcher can assess their current knowledge and identify gaps

Key statement: *"I've got to consider the bigger picture."* (Researcher A, HEART 2011a)

The discussion here succeeded the identification of a need for information and progressed into an acknowledgement that gaps in the researcher's current knowledge existed. From taking part in this discussion, the author was able to provide the first two steps in the research cycle of this researcher's work with a link to the seven pillar model and therefore, some structure to the project.

This aligns with the value of critical engagement. The researcher is encouraged, with the help of the librarian, to examine the approach taken to his project thus far. Not only does this allow for a critical eye upon his own research, but also shows how the librarian is able to transfer this view to teaching in other areas of the curriculum with which they are both involved (delivering lectures to students and encouraging their critical thinking skills).

5.3   Plan

A researcher can construct strategies for locating information and data

Key statement: *"I used that model you showed us to organise my searching."* (Researcher B, HEART 2011b)

This discussion arose from the researcher coming across the seven pillar model via some input the author gave to his final-year undergraduate cohort. He expressed that he felt more confident in approaching the author as they were now co-members of the HEART group and proceeded to request more information on the planning aspect of the model, as he felt it could benefit his

research plan in advance of a meeting with his supervisors. He had concerns that his existing plan did not cover the finding and evaluating of existing research sufficiently or with enough evidence of a systematic approach. Together, a strategy related to his literature review was constructed; identifying key areas of concern and the search tools to be used to locate evidence upon them. The author's own research experience also benefitted from this process as it could be linked to her own action research projects (specifically empathising with this researcher), thereby encompassing values of partnerships and participation.

5.4 Gather

A researcher can locate and access the information and data they need

Key statement: "*What if I'm a digital exile?"* (Researcher B, HEART 2011a)

Researcher A had mentioned the concept of digital natives (Prensky 2001) in relation to teaching in the current technological climate. This led Researcher B to air concerns about his own information gathering, as he felt a lack of confidence with technology. The group was able to have a conversation about digital natives and immigrants with reference to current library literature, specifically the misconceptions aired in the CIBER paper. The author was able to use knowledge of this to boost that of co-researchers, providing evidence of consideration of the value of cross-curricula understanding.

5.5 Evaluate

A researcher can review the research process and compare and evaluate information and data

Key statement: *"I used the model to decide what was useful."* (Researcher B, HEART 2011b)

Following on from the 'plan' example, the conversation developed into a consideration of the evaluation of the information found in the literature review this researcher had undertaken. The author was able to provide examples of relevancy criteria in evaluation, linked to the value of critical engagement.

5.6 Manage

A researcher can organise information professionally and ethically

Key statement: *"I used that Mendeley tool you recommended – it was just what I needed."* (Researcher D, 2010)

Although this researcher was not a member of the HEART group, this interview took place as a result of the research undertaken by the author, as a member. Therefore, the principles and values gained from membership had an impact in how the author carried it out. Although the interview was primarily about how the author and tutor could work together to develop IL partnerships to benefit the undergraduate curriculum, a further discussion continued regarding the researcher's problems with managing all of the literature she had amassed over years of work. The author was able to support the researcher in the use of bibliographic tools due to prior experience and professional knowledge. By working together, the values of partnerships and cross-curricula understanding were brought to the fore.

5.7 Present

A researcher can apply the knowledge gained: presenting the results of their research, synthesising new and old information and data to create new knowledge, disseminating it in a variety of ways

Key statement: *"Is there a way we can share our research findings?"* (Researcher D, HEART 2011a)

A very experienced researcher requested mechanisms for disseminating the research of the group. As an information professional, the author has knowledge of the various ways in which research can be disseminated in the institution and beyond (e.g. the institutional digital repository or the virtual learning environment). The librarian is also able to offer advice on copyright and publishing restrictions. Both the librarian and experienced pedagogic researcher have participated in the validation group and have shared expertise.

In doing the comparison detailed here, evidence can be found to suggest that members' understanding of IL has improved due to the involvement of a librarian in the group and associated professional knowledge. Values can also be used to measure the author's involvement in relation to the wider action research project.

6. New directions

Throughout the research process, the HEART group provides an arena to garner critical feedback from critical friends within a validation group. This research has been discussed within the group and the assertions based on the evidence, cross-referenced with the research lens of the Seven Pillars and with the previously-stated values of: critical engagement; participation; partnerships; and cross-curricula understanding. As McNiff (2010, p. 105) states, "You should listen to their feedback and act on it." and this has been done throughout.

As the literature review demonstrates, there is little evidence available regarding the issue of librarians supporting research by being researchers. As a profession which promotes evidence based practice in other arenas (such as health), it seems contradictory that librarians do not live out the value of critical engagement in their own work. If they do live out this value, there is little to demonstrate this in the evidence itself. In an era when government funding cuts are leading to public library closures and universities charging the end-user greater fees to offset their losses, it is imperative that the library profession investigates and demonstrates its value. It is the author's belief that being a researcher contributes to this cause and that promoting the action research methodology amongst practitioners will aid this.

As asserted in the literature review, there is little published by library practitioners in the research literature. A divide is apparent between library information researchers and those actually carrying out the roles; between theory and practice. Approaching library research from the practitioner's perspective and ensuring that decisions made in practice are based upon a reflective and evidenced approach may help to bridge this gap.

7. Significance

This study has provided evidence to support the assertion that librarians can become embedded in the research process by joining research groups and are able to provide IL support while actively researching as part of them. This provides a more progressive, community and academic based model for providing research support than is currently evidenced in the literature.

The research thus far has contributed to new forms of library-faculty collaboration and co-operation in the author's institution. As a result of this work, the author's role as a librarian and as an academic has developed. This study provides a model of how librarians can support others in their community and has shown the implementation of a process of embedded librarianship. This project also demonstrates how carrying out research can become part of the everyday work of a librarian in HE, rather than as a separate enterprise, to be carried out separately from day-to-day work. This study, therefore, could be viewed as evidence to support the embedded librarian model being used across HE.

References

Auckland, M. 2012. *Re-skilling for research: an investigation into the role and skills of subject and liaison librarians required to effectively support the evolving information needs of researchers* [Online]. London: RLUK. Available at: http://www.rluk.ac.uk/files/RLUK%20Re-skilling.pdf [Accessed: 2 February 2012].

Carlson, J. and Kneale, R. 2011. Embedded librarianship in the research context: navigating new waters. *College & Research Libraries News* March, pp. 167-170.

CIBER. 2008. *Information behaviour of the researcher of the future: a Ciber briefing paper* [Online]. London, UCL. Available at: http://www.bl.uk/news/pdf/googlegen.pdf [Accessed: 27 May 2009].

Committee of Inquiry into the changing learner experience. 2009. *Higher Education in a Web 2.0 world* [Online]. London, JISC. Available at: http://www.jisc.ac.uk/media/documents/publications/heweb20rptv1.pdf [Accessed: 27 May 2009].

Gannon-Leary, P. and Bent, M. 2010. Writing for publication and the role of the library: do have a cow man. *New Review of Academic Librarianship* 16, pp. 26-44. Available at: http://dx.doi.org/10.1080/13614530903478870

Hall, H. 2010. Promoting the priorities of practitioner research engagement. *Journal of Librarianship and Information Science* 42(2), pp. 83-88. Available at: http://dx.doi.org/10.1177/0961000610363978

Hardy, G. and Corrall, S. 2007. Revisiting the subject librarian: a study of English, Law and Chemistry. *Journal of Librarianship and Information Science* 39(2) June, pp. 79-91. Available at: http://dx.doi.org/10.1177/0961000607077575

HEART. 2011a. Meeting of HEART group. [Recorded by author] York St John University, 21 October 2011.

HEART. 2011b. Meeting of HEART group. [Recorded by author] York St John University, 14 December 2011.

Joint, N. 2005. Promoting practitioner-researcher collaboration in library and information science. *Library Review* 54(5), pp. 289-294. Available at: http://dx.doi.org/10.1108/00242530510600534

McCluskey, C. 2010a. Librarians as partners in Higher Education. In: *British Educational Research Association Conference*, September 1-4, University of Warwick**.** Warwick: University of Warwick.

McCluskey, C. 2010b. Librarians as partners in Higher Education. In: *Future visions for learning and teaching: Joint Conference of SIG Higher Education and SIG Teaching and Teacher Education, European Association of Research into Learning and Instruction*, 13 – 16 June, Kirkkonummi, Finland. Kirkonummi: University of Helsinki.

McCluskey, C. 2011a. Building information literacy partnerships in Higher Education. In: *Librarians' Information Literacy Annual Conference,* April 18-20, London School of Economics. London: LSE.

McCluskey, C. 2011b. Creating information literacy partnerships in Higher Education. *Library and information research* 35 (111), pp. 59-72.

McGuinness, C. 2007. Exploring strategies for integrated information literacy: at academic champions to institution-wide change. *Communications in Information Literacy* [Online] 1(1), pp. 26-38. Available at: http://www.comminfolit.org/index.php/cil [Accessed: 28 September 2011].

McNicol, S. 2004. Is research an untapped resource in the library and information profession? *Journal of Librarianship and Information Science* 36(3), pp. 119-126. Available at: http://dx.doi.org/10.1177/0961000604048914

McNiff, J. and Whitehead, J. 2006. *All you need to know about action research.* London: Sage.

McNiff, J. 2012. Travels around identity: transforming cultures of learned colonisation. *Educational Action Research* 20(1), pp. 129-146. Available at: http://dx.doi.org/10.1177/0961000604048914

Prensky, M. 2001. Digital natives, digital immigrants. *On the Horizon* 9(5), pp. 1-6. Available at: http://dx.doi.org/10.1108/10748120110424816

Researcher D. 2010. *What is my understanding of the role of an Academic Support Librarian?* [Interview by author]. York St John University, 20th April 2010.

SCONUL. 2011. *The SCONUL seven pillars of information literacy: Core Model for Higher Education* [Online]. London: SCONUL. Available at: http://www.sconul.ac.uk/sites/default/files/documents/coremodel.pdf [Accessed: 22nd November 2013].

Shumaker, D. and Talley, M. 2010. Models of embedded librarianship: a research summary. *Information Outlook* 14(1), pp. 27-35.

United Nations. 1948. *The universal declaration of human rights* [Online]. New York: United Nations. Available at: http://www.un.org/en/documents/udhr/index.shtml [Accessed: 10 April 2013]. Wenger, E. 1998 *Communities of practice: learning meaning and identity.* Cambridge: Cambridge University Press. Available at: http://dx.doi.org/10.1017/CBO9780511803932

Wenger, E. 2006. *Communities of practice: a brief introduction.* [Online] Grass Valley: TeamBE. Available at: http://wenger-trayner.com/Intro-to-CoPs/. [Accessed: 31 January 2012].

Wenger, E. 2009. Social learning capability: four essays on innovation and learning in social systems. *Social Innovation, Sociedade e Trabalho.* [Online] Booklets 12 – separate supplement, MTSS/GEP & EQUAL Portugal: Lisbon. Available at: http://wenger-trayner.com/resources/publications/essays-on-social-learning-capability/ [Accessed: 2 February 2012].

Whitehead, J. 1989. Creating a living educational theory at questions of the kind, "How do I improve my practice?" *Cambridge Journal of Education* 19 (1), pp. 137-53. Available at: http://dx.doi.org/10.1080/0305764890190106