

The practitioner's experience and conception of evidence based library and information practice: an exploratory analysis

Helen Partridge

Faculty of Information Technology
Queensland University of Technology
Brisbane, Australia
h.partridge@qut.edu.au

Clare Thorpe

Division of Academic Information Services
University of Southern Queensland
Springfield, Australia
thorpec@usq.edu.au

Sylvia Edwards

Faculty of Information Technology
Queensland University of Technology
Brisbane, Australia
s.edwards@qut.edu.au

Gillian Hallam

Faculty of Information Technology
Queensland University of Technology
Australia
g.hallam@qut.edu.au

ABSTRACT

Purpose: This paper presents a study that explores the way in which library and information science (LIS) practitioner's experience and conceive evidence based library and information practice (EBLIP).

Design: Semi-structured interviews were used for data collection. The interviews were designed and conducted using the phenomenographic approach. Phenomenography is an interpretive research approach that looks at the different ways people experience or conceive a range of phenomenon. The intent of phenomenographic research is to understand variation in the collective experience of a group or community in regards a particular phenomenon. Six participants took part in a 30-60 minute audio recorded interview. The goal of each interview was to understand the variation in each participant's experience of EBLIP.

Findings: The results suggest that LIS professionals have four different ways of experiencing evidence based practice. The four different ways or categories are (i) EBLIP is not relevant; (ii) EBLIP is learning from experience; (iii) EBLIP is service improvement; and (iv) EBLIP is all consuming. It should be noted that this framework is fluid and will evolve as the research project continues.

Value: The study is significant because it provides the first model or rich description of EBLIP as understood by the library and information practitioner. This model can assist library educators, associations and others involved in supporting and preparing current and future evidence based professionals, so that an evidence based culture can be firmly established within the profession.

Keywords: evidence based practice, evidence based librarianship, evidence based library and information practice, phenomenography, qualitative research, research-in-progress, library and information professionals, librarians, research-in-practice

INTRODUCTION

Increasingly, the library and information science (LIS) practitioner is being challenged to incorporate in evidence based practice into the context of their professional work. This has arisen out of the growing belief that “research and professional practice are inextricably linked” (Harvey, 2001, p. xiii) and as such, “research skills are a prerequisite for those who want to work successfully in information environments” (Harvey, 2001, p. xiii). Research skills are fast becoming an “essential set of tools which enable information *workers* to become information *professionals*” (Harvey, 2001). This paper will present a study that explores the way in which library and information science (LIS) practitioners experience and conceive evidence based library and information practice (EBLIP). The study is being conducted with the view to establish the first model or rich picture of evidence based practice as understood by the library and information practitioner. The paper begins by briefly considering how EBLIP is currently defined and therefore understood. This is followed by a detailed overview of the current study including the research approach, data collection and analysis. The study results are discussed and the limitations of the study considered along with future research directions. The paper concludes that if the library profession is to establish an evidence based culture more research is required to understand how the profession is currently experiencing and conceiving evidence based practice in their work practices.

WHAT IS EVIDENCE BASED LIBRARY AND INFORMATION PRACTICE (EBLIP)?

The term *evidence based librarianship* was first introduced into the library and information profession's vocabulary by Jonathan Eldredge (1997). Two years after introducing the term Eldredge challenged the LIS profession to establish “a shared definition and vision” for the concept. The first attempt to define evidence based librarianship emerged one year later when Andrew Booth (2000) adapted a pre-existing definition of evidence based practice. Booth notes that the definition has the “advantage of being coined by a librarian, Anne McKibbin from McMaster University” (Booth & Brice, 2004, p.7).

Evidence based librarianship (EBL) is an approach to information science that promotes the collection, interpretation, and integration of valid, important and applicable user reported, librarian observed, and research derived evidence. The best available evidence moderated by user needs and preferences is applied to improve the quality of professional judgments. (Cited in Booth, 2002, p.53)

In 2002 Jonathan Eldredge offered his definition:

Evidence based librarianship (EBL) seeks to improve library practice by utilising the best available evidence in conjunction with a pragmatic perspective developed from working experiences in librarianship. The best available evidence might be produced from either quantitative or qualitative research designs, depending upon the EBL question posed, although EBL encourages using more rigorous forms over less rigorous forms of evidence when making decisions (p.72).

Crumley and Koufogiannakis (2002), noting that the current definitions of EBL were overly theoretical, offered a “practical definition for everyday referral” (p.62). Evidence based librarianship was defined as:

a means to improve the profession of librarianship by asking questions as well as finding, critically appraising and incorporating research evidence from library science (and other disciplines) into daily practice. It also involves encouraging librarians to conduct high quality qualitative and quantitative research (p. 62)

This last definition places a greater emphasis on “the improvement of professional practice together with the addition of the librarian as practitioner-researcher” (Booth, 2002, p.54).

In reviewing existing definitions of EBL, Booth (2002) compiled the following list of ‘consensually based’ defining characteristics:

- A context of day to day decision making
- An emphasis on improving the quality of the professional practice
- A pragmatic focus on the ‘best available evidence’
- Incorporation of the user perspective
- Acceptance of a broad range of quantitative and qualitative designs
- Access, either first hand or second hand to the (process of) evidence based practice and its products. (p.54).

Booth (2002) also notes one significant omission from the list, and by consequence, from existing definitions of EBL: “a preoccupation with obtaining best value services for available resources” (p.54). Booth (2002) argues that this characteristic must be included as recognition of the “pragmatic real world thrust of EBL, coupled with its emphasis on decision making, requires that all decisions be taken in the context of finite resources” (p.54).

For six years the term *evidence based librarianship* was the accepted term to refer to the application of evidence based practice within the LIS profession. However, in 2003 Booth proposed an alternative label – *evidence based information practice*. Booth and Brice (2004) cite four sound reasons for the adoption of the alternative term:

- “The ‘label evidence based librarianship’ leads, as Crumley and Koufogiannakis (2002) recognise, to the inevitable confusion between librarians supporting evidence based practice and librarians practising evidence based practice” (Booth & Brice, 2004, p.6).
- The term ‘evidence based information practice’ places a stronger link between ‘evidence based practice’ which will allow the library and information profession to tap into “the emphasis on multi-disciplinarity” (Booth, 2002, p.58) inherent in evidence based practice. The library and information profession will benefit from the “kinship with related [evidence based] professions such as teaching and social work” (Booth, 2002, p.58) and consequently will not miss out on new and interesting developments in other evidence based fields, such as information systems which is closely related to those of evidence based librarianship (Booth & Brice, 2004, p.7).
- ‘Evidence based information practice’ acknowledges the wider context of information science (Booth & Brice, 2004, p.8).
- ‘Evidence based information practice’ places the focus on the “commonality of issues and methods within the domain of information practice with those that have emerged from the origins of the generic paradigm. Evidence based information practice is evidence based practice within information as both its subject and its object” (Booth & Brice, 2004, p.8).

Ultimately however, Booth (2003) anticipates that even the term “evidence based information practice will... write itself out of existence” (p.70). He proposes that:

the long term future of evidence based information practice probably lies not in a single minded focus on research-derived evidence but in a more encompassing approach that embodies reflective practice. (Booth, 2003, p.70)

Booth indicates that the library and information professional of the future will be a reflective practitioner (with reference to the work by Schön, 1991) “with the ability to critically analyse [and] make informed judgments” (Booth, 2003, p.70) by drawing on a range of catalysts, with research

evidence representing one opportunity. Booth suggests “ultimately evidence based practice will contribute to a tool box from which the reflective practitioner will occasionally draw” (Booth, 2003, p.70).

It did not take long before Booth’s 2003 prediction came into fruition. In 2006 the launch of an open access, peer reviewed journal on EBL introduced a new phrase to the professional discourse – Evidence Based Library and Information Practice. In the following year the fourth offering of the biennial EBL Conference series was scheduled to take place in the US in May – the event is significant for many reasons but most notably the move away from the existing EBL title to the new title of EBLIP. At this point no definition of EBLIP has been proved, nor any discussion on how this term relates to or differs from its predecessors (EBL or EBLIP).

Whether it is called *evidence based librarianship*, *evidence based information practice* or *evidence based library and information practice* the ongoing dialogue in the profession has clearly established that “research can and does play a vital role in professional practice” (Harvey, 2001, p. viii), indeed, “it is more important than ever to build our knowledge base and to use evaluation research methods to constantly monitor and improve the quality of the services provided” (SLA Research Committee & Marshall, 2003, p. 40). The definitions of EBL (and discussions arising around EBIP and EBLIP) provide tidy and clear cut descriptions – perhaps idealisations? – of what evidence based practice *should* be within the LIS profession. Very little is known however on what EBLIP *is* within the profession. To what extent is EBP present in LIS practice? How is it understood or experienced by practitioners? If our ultimate goal is to “firmly establish an evidence based culture in our profession, so that the profession itself truly has a future” (Partridge & Hallam, 2005) than this is an important knowledge gap that needs to be filled.

Lindsay Glynn, Editor in Chief of the Evidence Based Library and Information Practice journal provides one of the most recent attempts to try and fill this gap. In 2006 she posted a message to the e-list of the Evidence Based Librarianship Interest Group of the Canadian Library Association. In her post Glynn asked for “EBL success stories” hoping to “hear how people had used evidence to assist in their decision making as well as whether the applied evidence has a positive or negative result once implemented” (Glynn, 2006, p. 1). Glynn noted that the “responses were minimal” and that only three professionals who responded indicated that they had carried out original research to modify or implement a new service or policy. Glynn (2006) concluded that “EBL still has a way to go before it is practised regularly and systematically” (p. 2). Another source of informal data for understanding how EBLIP is being understood and experienced by LIS practitioners can also be found via the biennial EBL conference and the newly established EBLIP journal. What is clear from

the work by Glynn and the current avenues for professional discourse is that research is needed to understand how LIS practitioners experience or understand evidence based practice within the context of their day to day professional work. This study will meet that need.

THE RESEARCH PROJECT

THE RESEARCH AIMS

The focus of this project was to explore how LIS practitioners experience and conceive of evidence based library and information practice. This included two primary aims:

- To determine variation in the ways LIS professionals experience evidence based library and information practice.
- To determine if there are different levels of sophistication in how LIS professionals conceive of or experience evidence based library and information practice.

RESEARCH APPROACH

Semi-structured interviews were used for data collection. The interviews were designed and conducted using the phenomenographic approach. Phenomenography is an interpretive research approach that looks at the different ways people experience or conceive a range of phenomenon (Marton, 1988). The intent of phenomenographic research is to understand variation in the collective experience of a group or community in regards a particular phenomenon (in this current study EBLIP or EBL). It is grounded in the belief that “whatever phenomenon or situation people encounter, we can identify a limited number of qualitatively different and logically interrelated ways in which the phenomenon or the situation is experienced or understood” (Marton, 1994, p. 4). The strength of phenomenography as a research approach rests in its capacity to uncover variation in conception, awareness, understanding or experience. That is, phenomenography will help tease out the full spectrum of experiences or conceptions of EBL by LIS practitioner; and not just the “average” or “typical” experience or conception. Phenomenography is a method that has been used within the IT domain to explore conceptions of information systems (Cope, 2000), information literacy (Bruce, 1997) and information seeking (Edwards, 2006).

PARTICIPANTS

The six participants were professional librarians with industry experience ranging from 10 to 28 years (18.5 years average). Candidates’ age range was 36 to 61 years with four aged 36 to 45 years. Three library sectors (academic, public and special libraries) were equally represented in the sample. Only one of the participants was male.

DATA COLLECTION AND ANALYSIS

The goal of the interviews for the current study was to understand the variations in each participant's experience of EBLIP. The questions were designed to orient participants towards their experiences of EBLIP. The questions were also designed to ensure that the participant's experiences were allowed to emerge without being confined or otherwise influenced by the researcher's views. Participants conversed with an interviewer about their own views and experiences of EBLIP. To start the dialogue with participants, entry level questions were made concrete, asking them to describe a time when they have used research in their work practice and then asking them to explain further about what they actually did in that process, and why. Respondents were invited to explain their experiences in both graphical and written form. Two kinds of data were made available through the interview questions: reflected understandings and reconstructions of experiences. Interviews were 30 to 60 minutes in duration. All interviews were audio recorded. Full ethics clearance was obtained from the QUT Ethics Committee and all participants were informed about the recording procedure when initially invited to participate in the sessions and again at the commencement of the interview.

The intent of the analysis is to identify the variation in the experience of EBLIP. During data analysis the interviews were pooled so that interviews were not tied to individual participants. The analysis thus proceeded with a focus on the phenomenon under study and not the individual. The content of the interviews were examined with specific attention given to the similarities and differences between what was said about EBLIP. It was then possible to (i) seek meaning – that is, determine the discernable variations in ways of experiencing EBLIP; and (ii) seek structure – that is determine the critical elements and dimensions of the variations associated with each meaning. The meaning and structure of various experiences were then divided into separate categories of description. Together the categories of description represent each way of experiencing EBLIP. The aim in analysis is to “describe the phenomenon of research interest through a limited number of descriptive categories” (Limberg, 2005), usually between 4 and 7. From the analysis of the transcripts the research team developed the categories of description of the phenomenon (i.e. EBLIP). Put simply these categories are the researchers interpretation, based on their analysis of the data, of the variation in an individual, or a groups, account of the way they experience EBLIP (Cope, 2000). Each category represents one way in which the phenomenon is experienced. The purpose is to clearly define both the meaning and the focus of each group's way of looking at the world. Four categories were identified in the current study. A detailed discussion on each category is provided below. Using the four categories identified, a preliminary outcome space can then be developed. This is, in its simplest form, a map showing what critically different categories have been found by the research, and what is the relation between them. In this case, analysis has revealed

the categories of experience but the relationship between the categories is still to be determined. This point is discussed in greater detail below.

RESULTS

Analysis of the data gathered to date suggests an initial framework of four categories that capture LIS professional's different ways of experiencing evidence based practice. It should be emphasised that these categories may still be fluid, as analysis is ongoing.

1. Evidence based library and information practice is not relevant.
2. Evidence based library and information practice is learning from experience.
3. Evidence based library and information practice is service improvement.
4. Evidence based library and information practice is all consuming.

Each of these categories is associated with different meanings being assigned to the EBLIP experience. They are also associated with different awareness structures, different approaches to learning how to undertake EBP and different outcomes from applying EBL in practice. The awareness structures are differentiated in terms of different foci, and also in different ways of seeing the professional environment both within and outside the immediate job or task and the process and implementation of EBLIP. The following sections briefly outline each of the four categories according to their meaning, the foci and the structure of awareness.

The current study suggests 3 broad areas of awareness:

- **Internal environment** consisting of (i) work colleagues; and (ii) corporate context
- **External environment** consisting of (i) other services; and (ii) need for change
- **Planning and implementation**

CATEGORY 1: EVIDENCE BASED LIBRARY AND INFORMATION PRACTICE IS NOT RELEVANT

Meaning:

In this category librarians see evidenced based practice as a professional accident that happens by default because they are library and information professionals. But they don't know what evidence based practice is or what it means.

Focus:

In this category the primary focus is on ***doing their job***.

(Please note: Int 1 (p.4) = Interview 1 (page 4 of transcript))

Int 2 (p.10): Using practical experience to carry out your day to day job

Structure of Awareness:

The structure of awareness associated with this experience suggests the practitioner's focus is on their own abilities within their work environment. They use the expertise of others, either from within or external to their organization, only when required. The corporate context, policy and governing drivers have a strong influence and the practitioner's focus is on working within corporate parameters rather than within a library and information science domain.

Int 6 (p.2): What's happening in council? Well find out what parameters we have to fit within.

In this category, there is an awareness of the need to consider wider institutions outside of the library and information science field when seeking external expertise. But identifying drivers for change is predominantly reactive and it is the parent organization which defines the strategic directions. Decision making is the sole reason for gathering evidence. Evidence is defined as data and is gathered through surveys or by conducting experiments when needed to support a decision.

CATEGORY 2: EVIDENCE BASED LIBRARY AND INFORMATION PRACTICE IS LEARNING FROM EXPERIENCE

Meaning:

In this category librarians see evidence based practices as learning from and using research. It is relying on what has been previously proven to be right.

Focus:

In this category the primary focus is on using **evidence** to demonstrate their worth.

Int 3 (p.10): Being able to prove what we do in libraries or how it's done in libraries, or why we do things or how we do things, but be able to prove that by either statistics or understanding of what's been done before.

Structure of Awareness:

In this category there is a strong awareness of the practitioner's need to continually justify their existence within the workplace and to prove their value to their parent organization. Within the internal environment, the practitioner sees their colleagues as people who require justification of their worth and the practitioner needs approval of their governing bodies and stakeholders before making or implementing any decisions.

Int 6 (p.13): They're the stakeholders. You're not the ultimate decision maker in a lot of things.

Beyond the immediate workplace, the practitioner in this category is primarily focused on other library and information services with little or no consideration of other industries. Their attitude to change is reactive but responsive to dealing with genuine problems. The application of research

leans towards using the output of others through literature reviews and a reliance on published material rather than conducting their own empirical research.

Int 5 (p.10): I'd try to think through all of the information sources that were going to be valuable and if time permitted try to put together a bit of a case.

CATEGORY 3: EVIDENCE BASED LIBRARY AND INFORMATION PRACTICE IS SERVICE IMPROVEMENT

Meaning:

In this category librarians see evidence based practice as an activity undertaken in order to improve what they do or what their library offers.

Focus:

In this category the practitioner's focus is on identifying, achieving and implementing **best practice**.

Int 3 (p.18): Anytime we think there's something out there we need to investigate we put out an expression of interest, people to become, to start a project, we follow it through.

Structure of Awareness:

The structure awareness in this category is driven by a project management approach. Within the internal environment team-work is valued when required by project work however the practitioner relies on their own strengths and knowledge when working on other non-project tasks. The governing body drives the implementation of evidence-based practice. There is a strong focus on benchmarking against other library and information services and with other service industries with a tendency towards achieving near perfect levels of client service and customer satisfaction. Change is embraced proactively as the practitioner strives to stay ahead of technological and other innovations. Implementation of projects is highly structured with set goals and milestones to monitor achievement. Research is a part of this project management approach and evidence based practice is applied as required to establish best practice.

Int 3(p.17): We need to be able to understand the new technologies and to use...any other innovation that is available to anybody out there in the workforce. We should be ahead of the crowd. I think libraries should be leading the way.

CATEGORY 4: EVIDENCE BASED LIBRARY AND INFORMATION PRACTICE IS ALL CONSUMING

Meaning:

In this category librarians see evidence based practice as being an integral part of their job which cannot be switched off. They see their job as being evidence based librarianship.

Focus:

In this category the practitioner's focus is on **being their job**.

Int 5 (p.16): It's very people orientated and my role as a liaison librarian, as soon as I hit anywhere near the campus and I'm identified by somebody, my switch is on and I've got to

be this entity and this role and so until I get in my car and close the door and turn on my radio really loud I'm there to receive feedback. There is no switching it off because feedback is directed to me.

Structure of Awareness:

In this category, the practitioner is team-oriented and heavily reliant on colleagues and peers when engaged in decision making. The practitioner sees their role as influential and contributes to the strategic direction of the corporate body and stakeholders. However their field of interest is restricted internally to their parent organization and there is little or no scanning of LIS or other industries. Within this internal environment, they proactively seek opportunities to improve their services and products and are constantly seeking feedback from clients and colleagues. The implementation of strategies to take advantage of these opportunities is unstructured and organic, possibly even haphazard, with strategies evolving by accident. Decision making is based on feelings and hunches rather than evidence.

Int 1 (p.6): Cyclical and organic in the sense that...the way I approach it is possibly a bit scattered, but the knowledge builds on itself. I haven't really thought about research.

EVIDENCE BASED LIBRARIANSHIP VS. EVIDENCE BASED INFORMATION PRACTICE

Interestingly when asked to finish the following sentences (EBL is... /EBLIP is...) none of the participants saw a distinction between the language. To them the two phrases referred to the same concept. However it should be noted that during the pilot study, all interviewees identified themselves or their job title as "librarian". More research in the broader information services or with staff who do not define themselves as librarians is required to investigate this further.

LIMITATIONS OF THE RESEARCH

The research reported in this paper is a pilot study for a much larger project. It is not intended as an exhaustive study in its own right but merely a conversation starter. With only six participants involved in the study to-date any conclusions drawn are only suggestive at best. The issue of sample size is an important issue to be considered in qualitative research. Most phenomenographic studies use between 20 and 30 participants to ensure that all the variation in the experience has been uncovered (i.e. from various gender, socio-economic and ethnic backgrounds) whilst some studies include 50 or more participants. Sandberg (2000) suggests that after 20 interviews the number of conceptions identified reaches saturation. This view was also shared by Douglas (1985), who notes that "interviews with 25 people were necessary before he reached the saturation point" (cited in Maykut and Morehouse, 1994, p65). The current pilot study will be extended by including participants until 'saturation' point has been obtained. Participants will be drawn from all LIS

contexts including public, special (including one person libraries), academic, TAFE or technical college and school libraries.

DISCUSSION OF FINDINGS AND FURTHER DIRECTIONS

This research lays down the foundation for the first model of EBLIP as understood by the library and information practitioner. If the LIS profession is to evolve into one grounded in EBLIP than we need to take stock of what the profession currently understands, and of practitioner's experiences of, EBLIP in the context of their professional practice.

It must be stressed that this is only a pilot study and more data is needed before an outcome space can be articulated. At this stage it is too early to identify whether a relationship or hierarchy exists between the four identified categories of experience. Initial thoughts by the research team have suggested that there is a distinction between *Category 1: Not relevant* as being unconsciously engaged in EBLIP whereas the remaining categories indicated a more conscious awareness of research as a part of LIS practice (see Figure 1). However more data is required to clarify whether this is a true representation of the relationship between the categories.

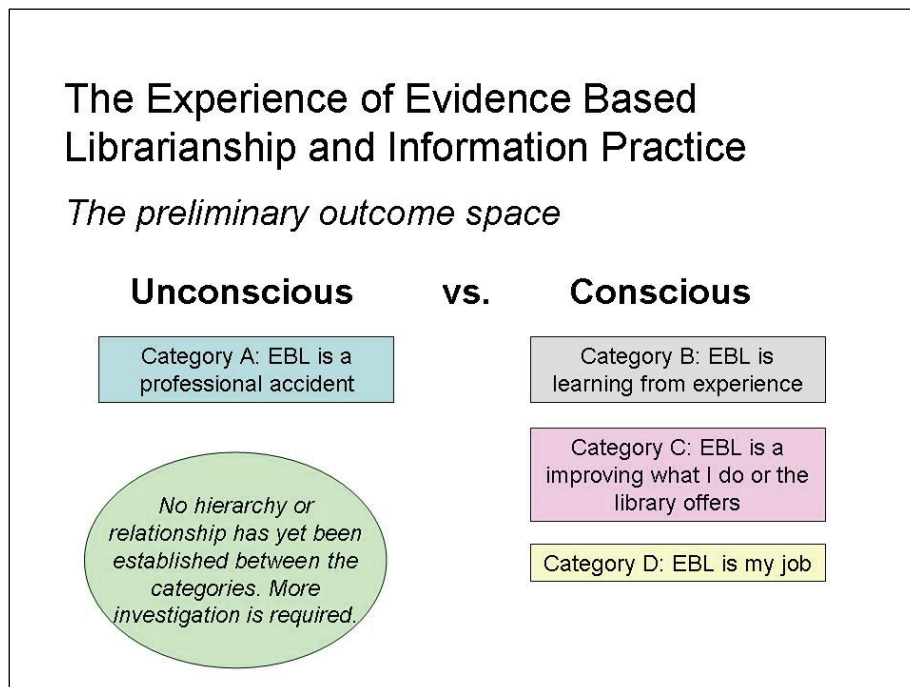


Figure 1: A possible outcome space

The data also hints that *Planning and Implementation* structure of awareness might be teased out to have sub-areas such as:

- (i) methodology;
- (ii) conducting research;
- (iii) reviewing research and
- (iv) reporting research.

This will be investigated in a later phase of the study.

Data gathering and analysis are continuing and it is expected that when this is complete, the research outcomes will help practicing and future LIS professionals engage more actively in EBLIP and develop a better understanding of the EBLIP phenomenon. The research has the potential to assist library educators, associations and others involved in the supporting, preparing and education of current and future LIS professionals so that an evidence based culture can be firmly established within the profession.

CONCLUSION

The emerging interest in evidence based practice within the LIS context serves to remind the library profession that research skills and methods will ensure that the library industry remains current and relevant in a rapidly changing environment. The future of EBP within the library context relies upon the establishing EBLIP research agenda with a focus on understanding how the profession is currently experiencing and conceiving evidence based practice in their work practices.

REFERENCES

- Booth, S. (1990). *Conceptions of programming: a study into learning to Program*. Molndal: Goteborg University, Institute of Education.
- Booth, A. (2002). "From EBM to EBL: two steps forward or one step back?", *Medical Reference Services Quarterly*, Vol. 21 No. 3, pp. 51-64.
- Booth, A. and Brice, A. (2004). *Why evidence based information practice?* In Andrew Booth and Anne Brice (eds.) *Evidence based practice: for information professionals*, Facet Publishing, London, pp.1-12.
- Bowden, J., & Walsh, E. (Eds.). (2000). *Phenomenography*. Melbourne: RMIT University Press.
- Bruce, C. (1997). *The Seven faces of information literacy*. Adelaide: Auslib Press.
- Cope, C. (2000). *Educationally critical aspects of the experience of learning about the concept of an information system*. Unpublished PhD, La Trobe University, Bundoora, Vic.
- Crumley, E. and Koufogiannakis, D. (2002). "Developing evidence based librarianship: practical steps for implementation", *Health Information and Libraries Journal*, Vol. 19, pp. 61-70.

- Douglas, (1985). *Creative interviewing*. Beverly Hills, CA: Sage.
- Edwards, S (2006). *Panning for gold: Information literacy and the net lenses model*. Adelaide: Auslib Press.
- Eldredge, J. D. (1997). "Evidence based librarianship: a commentary for Hypothesis", *Hypothesis*, Vol. 3, pp. 4-7.
- Eldredge, J. D. (2002). "Evidence based librarianship: an overview", *Bulletin of the Medical Library Association*, 88(4): 289-302.
- Glynn, L. (2006) Editorial: The Current State of EBL. *Evidence Based Library and Information Practice* 1(2), 1-2. Retrieved on 11 February 2007 from <http://ejournals.library.ualberta.ca/index.php/EBLIP/article/view/64/126>
- Limberg, L. (2005). *Phenomenography*. In K.E. Fisher, S. Erdelez and L.E.F. McKechnie (Eds.), *Theories of Information Behavior*. Medford, NJ: Information Today.
- Marton, F. (1986). *Phenomenography - a research approach to investigating different understandings of reality*. *Journal of Thought*, 21(3), 28-49.
- Marton, F. (1988). *Phenomenography: exploring different conceptions of reality*. In D. Fetterman (Ed.), *Qualitative approaches to evaluation in Education: the silent revolution* (pp. 176-205). New York: Praeger.
- Marton, F. (1994). *Phenomenography*. In T. Husén, & T. N. Postlethwaite (Eds.), *International Encyclopedia of Education*. (pp. 4424 – 4429). Oxford: Pergamon Press
- Marton, F., & Booth, S (1997). *Learning and awareness*. Mahwah, N.J.: L. Erlbaum Associates.
- Maykut, P. & Morehouse, R. (1994). *Beginning qualitative research-A philosophic and practical guide*. London: Falmer Press.
- Partridge, H. & Hallam, G. (2005) *Developing a culture of evidence based practice within the library and information profession: the impact of library science education. A teaching and learning model from the Queensland University of Technology*. In *Proceedings Management, marketing, evaluation and promotion of library services, based on statistics, analyses and evaluation in your own library*. Satellite meeting of the IFLA Management and Marketing Section, 71st WLIC 2005, Bergen, Norway.
- Sandberg, J. (2000) *Understanding human competence at work. An interpretive approach*. *Academy of Management Journal*, 43(1), 9-17.
- Schön, D. (1995). *The reflective practitioner: how professionals think in action*, 2nd ed, Arena, Aldershot, England.
- SLA Research Committee and Gard Marshall, J. (2003). "Influencing our professional practice by putting our knowledge to work", *Information Outlook*, Vol. 7 No. 1, pp. 40-44.