



Commentary

The Evolution of Evidence Based Library and Information Practice, Part I: Defining EBLIP

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Evidence Based Library and Information Practice (EBLIP) has achieved an impressive array of accomplishments during its brief lifespan. Mysteriously, the recent 15th Anniversary of EBLIP passed with little notice. If the past Editor actually had not brought it to my attention, I might not have noticed this anniversary despite having had a direct role in its development (Eldredge, 1997). EBLIP already has produced six international conferences, the establishment of this open access peer reviewed journal, continuing education courses based in the UK and US with broad international participation, representation in most types of libraries (academic, public, etc.), two special issues of peer reviewed journals, and two books (Booth & Brice, 2004; Connor, 2007) devoted entirely to EBLIP. Some of the most robust early EBLIP work originated in countries such as Australia, Canada, Sweden, the UK, and the US. More recent EBLIP work has emerged from countries such as Iran and Japan (Gavvani, 2009; Yukiko, 2008). Few phenomena in the

Library and Information Science (LIS) world indeed can claim as many achievements within only 15 years.

EBLIP provides a sequential, structured process for integrating the best available evidence into making important decisions. The practitioner applies this decision making process by using the best available evidence while informed by a pragmatic perspective developed from working in the field, critical thinking skills, and an awareness of different research designs, which is further modulated by knowledge of the affected user population's values or preferences.

EBLIP has evolved quickly during the past 15 years. It has managed this rapid pace due to a professional environment characterized by encouragement, inquiry, skepticism, dialogue, an openness to new information among participants, and a willingness on the part of LIS professionals to change their own minds. The brief definition above retains my original

ideas, while reflecting the further evolution of my thinking during the past 15 years (Eldredge, 2000; Eldredge, 2006; Eldredge, 2008), as well as incorporating elements from others' definitions within this dynamic EBLIP professional environment (Booth, 2002 ; Crumley & Koufogiannakis, 2002).

The EBLIP Process

The EBLIP process provides structure for reaching important decisions. The EBLIP process resembles evidence based processes in other professions such as education, health, management, or public policy analysis. The steps in the EBLIP process can be summarized as:

1. Formulate an answerable question on an important issue
2. Search for the best available evidence to answer the question
3. Critically appraise the evidence
4. Make a decision and apply it
5. Evaluate one's performance

In the pages that follow I will use the structure and sequence of the EBLIP process to define more clearly and describe the five EBLIP steps.

1. Formulate an Answerable Question

Davies (2011) has noted that "Questions are the driving force behind evidence based practice (EBP)." Early explorations with EBLIP questions focused upon formulation techniques and compiling lists of questions from colleagues around the world (Booth, 2001; Eldredge, 2001). Lewis & Cotter (2007) noted the relative stability of EBLIP questions by subject matter between 2001 and 2006, although their study pointed to persistent research-practice gaps. Booth (2006) crystalized existing ideas about question formulation and provided perhaps the most pragmatic advice to date on how to formulate productive EBLIP questions. Wilson (2009) recently provided a brief column that included key pointers on question formulation.

A new development in 2008 marked an unexpected and significant turning point in

EBLIP question formulation. Completely separate teams in Sweden and the US with no awareness of the other team, simultaneously conducted consensus building Delphi studies to prioritize large numbers of EBLIP questions. Interestingly, and reflecting similar synchronicity the same year, Rossall, Boyes, Montacute, and Doherty (2008) called for similar approaches via research networks in an effort unrelated to either the Swedish or US projects.

The Swedish team led by Maceviciute and Wilson (2009) conducted a two round Delphi study that surveyed librarians via email from different types of libraries (academic, public, etc.) about their top research concerns. The final phase of the project involved a face-to-face workshop that consisted of leveraging nominal group exercises in an effort to reach consensus.

The Delphi study in the US during 2008 focused only upon the leaders and research oriented members of the Medical Library Association (MLA). MLA leaders and the members of MLA's Research Section were queried through a two-phase series of surveys and voting on top ranked questions. This study produced 12 top priority research questions that became the MLA Research Agenda. A slightly modified 2011 Delphi study by the same team produced a list of top ranked research questions quite different from the 2008 study (Eldredge, Harris, & Ascher, 2009; Eldredge, Ascher, Holmes, & Harris, 2012). Harris, Holmes, Ascher, and Eldredge (2012) conducted a subject analysis on the complete list of 140 questions submitted during the first phase of the 2011 Delphi study. The short lists of high priority research questions generated by both the Swedish and U.S. Delphi studies allow the profession to target high priority research concerns with money and other resources. Library administrators can use these short listed priority research questions to encourage their librarians to pursue studies in these important research areas. Our profession will benefit most from devoting the greatest resources and incentives to answering the highest ranked EBLIP questions, although we should continue

to encourage individual researchers to pursue alternative areas of applied research which are capable of improving our practice.

2. Searching for the Evidence

Members of our profession are viewed widely by others as the masters of organizing and searching for needed information. Paradoxically, our own databases are poorly organized and our vast grey literature unsuitable for easy systematic inquiry. Searching for the relevant evidence on the part of EBLIP practitioners, thus, poses considerable challenges. Winning (2004) and Beverley (2004) assessed the challenges and offered their practical solutions for finding the needed evidence. While the technical details of these approaches might need updating, the principles these authors offered for searching for EBLIP largely still work well. Booth (2008) wrote a complementary column on tactics for searching that might further aid EBLIP practitioners. Bradley (2007) has noted that we also often need to search other non-LIS literatures to find potentially pertinent evidence. Since many LIS researchers receive incentives in the form of paid conference attendance when presenting papers or posters, but zero or even negative incentives to publish the same research results, our profession consequently deposits much of its intellectual capital in the extensive and not always easily accessed grey literature.

The "Evidence Summaries" in this journal provide great assistance to busy practitioners who can neither search for the evidence nor appraise it critically. The Evidence Summaries represented a brilliant idea (Koufogiannakis, 2006) that, like most of EBLIP, has used the best available evidence to foster improvement as it has evolved continuously (Kloda, Koufogiannakis, & Mallan, 2011; Kloda, 2012). The open access journal *Hypothesis* supplements the evidence summaries in *EBLIP* through its regularly published literature reviews on recent research and its publication of expanded structured abstracts for the Research Awards granted annually by the Medical Library Association.

3. Critically Appraise the Evidence

Critical appraisal involves sifting through the best available evidence in order to make a sound decision. Two core principles guide the critical appraisal process. First, the evidence must be appropriate for answering the specific EBLIP question. Second, evidence can vary widely in its quality.

Making judgments on the appropriateness of evidence can be a challenge. Ideally, every graduate of a library or information practice professional school would be equipped to meet this challenge with at least one semester length course on the strengths and weaknesses of the major qualitative and quantitative research methods. The absence of such coursework in the majority of graduates has led to a new role for librarians with such research methods training: "Translator." Previously, I conceptualized the librarian roles of evidence "Producers" and "Consumers" (Eldredge, 2008, p. 254), but the realities of EBLIP have led to a new third "Translator" role. The aforementioned Evidence Summaries in this journal enlist the services of such translators to critically appraise research evidence, which includes gauging evidence appropriateness.

The profession now has a far more robust evidence base than it did during the early years of EBLIP (Dalrymple, 2010). Systematic reviews are generally considered to be the highest form of evidence, regardless of EBLIP question type (Eldredge, 2008). Systematic reviews were once scarce in our profession. They are now far more common with 39 documented in a blog created by Denise Koufogiannakis (2012). We have seen a proliferation of rigorous quantitative and qualitative research studies in our literature (Given, 2006), although much more research needs to be pursued (Koufogiannakis & Crumley, 2006; Rossall et al., 2008). As Koufogiannakis (2011) recently concluded, "The scientific aspect of our work continually needs to be reinforced and built upon" (p. 2). The same principle applies to developing our local sources of evidence.

Many times evidence summaries do not quite address an emerging EBLIP question so librarians must access the research literature. Fortunately, there have been a number of critical appraisal checklists to guide their reviews of the research literature (Booth & Brice, 2003; Glynn, 2006). Evidence hierarchies are helpful tools to guide critical appraisal, but should not be utilized rigidly (Eldredge, 2002; Eldredge, 2008). Brett (2012) recently reminded us that additionally we need to be open to the possible utility of evidence that defies our present EBLIP categorizations.

4. Make a Decision and Apply It

EBLIP questions emerge within local contexts when the practitioner must make an important decision. Some questions are more universally shared, as already noted in the discussion of Delphi studies above. Making decisions and applying them similarly occur in the specific local context. EBLIP practitioners must know their local users' values and preferences in this fourth step to be successful. Cognitive biases also present some of the most daunting challenges in making and applying a sound decision, regardless of local context. Cognitive biases either interfere with our perception of situations or in our making decisions (Eldredge, 2007). The decision making step in EBLIP includes so many potential pitfalls that it would require an entire commentary to begin to examine even the most fundamental issues. Suffice it to state that some of the best minds in EBLIP have been grappling with these issues for years, and much more work remains.

5. Evaluate One's Performance

Grant's systematic review on reflective practice (2007) illustrates that since 1978 our profession has a scattered yet evolving history of incorporating self-evaluation into practice. She tracks a trend toward more sophisticated forms of reflection than the early forms that comprised mainly senior librarians' reminiscences. Others have noted that evaluating performance takes place at the individual, institution, and professional

association levels, so it manifests itself in more than just a solitary form.

Conclusion and Next Steps

Anniversaries offer us a convenient chance to track progress, reassess, and reflect. EBLIP actually did not begin in 1997, only an articulation and initial definition that expanded into an impressive body of further work. Much work preceded the beginning of EBLIP, too, although the origins are diffuse when viewed through the retrospective lens of much undocumented history (Eldredge, 2004; Russell, 2008).

This commentary has described what, for many EBLIP readers, will be obvious. EBLIP has arrived on the LIS scene, has been fairly well codified within an environment of skepticism and reflection over the past 15 years, and it certainly seems to be on the minds of many librarians and other information professionals these days.

The *New Oxford American Dictionary* defines a "definition" as "An exact statement or description of the nature, scope, or meaning of something" (Definition, 2010). This commentary addresses the nature and scope of EBLIP. Aside from mentioning its role in decision making, however, this piece does not delve into the *purpose(s)* or *meaning* of EBLIP. Part II (in the March 2013 issue) will grapple with the *function(s)* that EBLIP serves within our profession. Is EBLIP a social movement within our profession? A reformist movement? A new academic discipline? A paradigm shift? A diffusing innovation? The tentative answers to this functionalist or structural-functionist question in Part II might shed light on where we need to be heading over the next 15 years and how we might best get there.

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