

Evidence-based Librarianship (EBL) in Malaysia

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Abstract

Evidence-based librarianship (EBL) is a complementary mechanism that helps librarian in problem solving and decision making process. This concept certainly gives additional value to library in many aspects of librarianship activities and services. EBL supports librarian to apply evidence in their daily practices since the concept is moderately flexible and appropriate in many areas in library. The aim of this paper is to identify librarian's attitude in Malaysia towards evidence based librarianship (EBL). This study adopts a quantitative research methodology and uses a survey form for data collection. Academic librarians from public universities were selected to be the respondents in this study. The librarian response towards the level of evidence used by the librarian and source of evidence used by them is moderate. The results from the study are inclusive of Malaysian academic librarian and it may not be interpreted as generalizable to librarian from another type of libraries.

Keywords Evidence-based Practices; Evidence-based Librarianship (EBL); Evidence-based Library and Information Practices (EBLIP); Academic Libraries, Library Management; Malaysia

1. Introduction

Evidence-based practices (EBP) has caught big attention to libraries all around the world (Hassan et. al., 2009; Abd. Manaf & Mohamad Bahtiar, 2015; Johannsen & Pors., 2012; Cole & Ryan, 2016). The concept emerged from medical and healthcare field and disperse widely into other fields of study including librarianship. There are many definitions on EBL given by researchers but the simplest one is that EBL supports library in real life situation with up-to-date practices, provide best available practices, and offer reliable and trustworthy research evidences. In the past libraries were forced to tighten their budget, facing difficulty to cope with technology development, university and management pressure, users' expectations, conflict of interest, and various issue on library activity and services. Abd Manaf & Mohamad Bahtiar (2015) stated that libraries are facing problems to maintain its relevance to the institution that it served, therefore librarians must prepare themselves with EBL skills to defend their existence.

In academic libraries, arising issues are really challenging as academic libraries serve a larger number of users. Librarians need to have good evidence-based skills so that they are

able to work systematically. Later on librarian will feel confident in conducting critical evaluations and decision making based on the facts or evidence that they have gathered. With these skills, any issues related to acquisition or publishing trends, socio-economic development, budget constrain or user demands, can handled by the librarians in an evidence-effective way of dealing with problems. In addition, EBL are integrated with every aspects of library processes and are able to assist the library and librarians to enrich their performance, especially in managing library services and resources effectively.

There is some misapprehension in EBL practices. Wilson (2015) indicated that people only focus on using research into practice. The misunderstanding occur when a person to focus on research practice (Wilson, 2015) when EBL is more than knowledge of research findings. The resolution in librarianship is made by merging research evidence, knowledge about the subject matter, the validity of the resources and excellence management can reduce risk for mistakes.

Haglund (2009) highlighted another misunderstanding in the EBL. He added that people always set their minds that EBL is only for the medical field and only medical librarian should equip themselves with such skills. This happens because the concept starts with evidence based medicine (EBM) in the medical field, and it slowly immersed in a library environment and shaped the concept of evidence based practices called EBL that appropriate for librarianship. In Sweden, there are a series of initiatives had been made to reduce the misconception of EBL with medicine. They are educating library staff at all levels from all types of library and related organization across the nation. This activity is a promotion and publicity strategy in introducing EBL to library and information institution and at the same time to create interest among them.

The objective of the study is to identify Malaysian academic librarian attitude towards EBL. In order to achieve the objective, the methodology for Malaysian academic librarian attitude towards EBL was proposed. Although there are many studies on EBL in LIS literature, there are still limitation in existing literature focussing on Malaysian setting.

The remaining of this paper is consist of literature review in Section 2, Chapter 3 is methodology and Chapter 4 findings and discussion. Chapter 5 is recommendations and future works as well as conclusion of the study.

2. Literature Review

Even though the movement of EBL adoption concept is slower compared to medical, still the awareness of EBL in library and information centre is emerging. This can be seen in Nigeria, where 67 percent of their librarian have knowledge in EBL, while 69.5 percent believed that it assists them in solving problem in library and 69 percent responded they can make use of the concept for decision making (Rabiu, 2016). However, Epstein and King (2002) ascertained that the “there was little awareness of, much less compliance with, the rules of inference that guide empirical research in the social and natural sciences.”

According to Dalrymple (2010) the first stage of EBL adoption is by having awareness and some knowledge about it. Therefore, librarians will understand the usefulness of EBL and they can easily adopt the concept and will apply the evidence into practice. There are few awareness projects on EBL initiated by libraries to educate librarians and information practitioners (Howlett & Howard, 2015; Haglund, 2009). The art of evidence gathering activities is shared-out and spread out as a good practice. It is already in practice but the problem is to engage librarians to participate with evidence based activities (Cole and Ryan, 2016; Taylor et al, 2015). Due to certain factor. Hiller, Kyrillidou and Self (2008) found that

some librarians are sceptical with research methodology and evidence based activities. Librarians have a preference to use assumptions and use their past practice as a basis for library decision making. They also added that this behaviour stems from lack of research skills and ability to analyse data.

There are numerous types of evidence used by librarian and various source of evidence that library can refer to in engaging library practice with evidence based activities. Every evidence and source of evidence that they used is based on the outcome that a librarian need. When a librarian understands which evidence is the best for the context of the problem, they will seek deeper information and build knowledge on that matter. Then the available evidence will be evaluated for the best available evidence and used as proficient judgement (in several ways) the evidence can be practiced and fitted in any library circumstances. Howlett & Howard (2015) stated that “from current awareness to applying evidence to a specific situation, there is a process of reflection that draws upon professional knowledge and experience to make these judgments”. Thus to make a professional judgement librarian must have knowledge and skills to do so.

In Malaysian context, Hassan et al. (2009) reported that EBL is a new demand in library which requires librarian to adopt and adept the concept in order to make the profession to stay relevant in modern environment. Librarian must have relevant skills to cope with the current needs. An EBL workshop called ‘The Evidence Based Practice: Train the Trainers Workshop’ was conducted in Universiti Sains Malaysia (USM) in 2007. From the workshop, eight new librarian role was acknowledged, comprising; the role in information retrieval and information searching, the role in teaching effective literature searching skills, the role as tutor, facilitator and educator in academic curriculum; the role as faculty librarians and subject librarians; the role in advocating library services (e.g, clinical area – for clinical librarian role); the role in designing search strategies and comprehensive searching strategies; the role in database maintenance and the role in hand-searching for local journal publication.

Hassan et al. (2009) stated that the EBL implementation can be done either integration in students’ curriculum, collaboration with academicians and schools, advanced training in information searching skills, designing searching strategies, group tutorials, road tours as well as survey. However, the EBL movement in Malaysia is demoralising even though it growth is widely spread at the international level (Hassan et al., 2009). Santra (2007) found that Malaysian librarians were not equipped and their activities in library was at the general level. She highlighted that librarian skills in synthesizing, evaluation of information and answering problem-based questions is unclear.

Hassan et al. (2009) stated that librarian faced difficulty to implement EBL while carry out various efforts, tasks and EBL initiatives. They highlighted few barriers and challenges faced by Malaysian librarian such as lack of support from schools; lack of qualified and skilled librarian, communication and language barrier; lack of knowledge in specific terms or jargons; lack of pedagogy skills; not updated of the latest information resources on site or beyond; inadequate network infrastructure, computer facilities and IT infrastructure; lack of confidence and self-esteem; time constraint and user attitude

Similar workshop was held in 2012 and 2013 organized by International Medical University (IMU) Malaysia with mission to strengthen the EBL implementation in Malaysia and widespread the knowledge across the nation. It was known as EBLIP 1.0 and EBLIP 2.0. According to IMU (2013), the workshop was fruitless because low number of participation from libraries, information centre and related intuitions. He added that it is ‘due to the

mistaken perception that EBLIP is directed at medical librarians where by available participants were librarians from institutions that offer degree courses in medicine'.

There are also international movement called EBLIP (Wilson, 2011) that initiate EBL at the international level that turned into a supporting association to local library that might need help to support EBL development. The local library then, especially academic library should take this advantage to promote, create awareness activities internally or at national level and share the evaluation and research findings to create a good evidence ground for Malaysian academic libraries. It is tough to Malaysian librarian to accept concept and culture taken from the Western country (Hassan et. al, 2009). But the research culture promoted by EBL had encourage librarian to utilize EBL to assist them in decision making as well as a starting point to conduct their own research. Therefore, EBL should be supported and be part of aspect of library practice. Thus, this study attempts to identify Malaysian academic librarian attitude towards EBL.

3. Methodology

The population frame for this study had been taken from 20 Malaysian academic library. The sampling frame was derived from academic library official websites. List of library staff names were provided in each websites including other details such as contact number, position, email and divisions he or she served. The population is the academic libraries in Malaysia.

The total population for this study is 624 librarians. According to Krejcie & Morgan (1970), when the population size (N) in between 600-649 the recommended sample size (S) that appropriate for the study is 234. Hence, a sample of 234 librarians was randomly selected from the Malaysian academic librarian total population. Therefore, simple random sampling (probability sampling) is the best suit the needs of this study.

This study was carried out using quantitative approach. Structured questionnaire was developed and used as instrument to measure relationship organizational factor and EBL adoption in Malaysian academic libraries. This approach is consistent with previous studies relating to evidence-based studies and adopt quantitative method as the research technique such as Glynn (2006), Gavgani (2009) and Koessl (2009).

The questionnaire contain close-ended questionnaires and divided into three sections with cover letter introducing the objective of the study. The first section consist of demographic profiles such as age, gender, education background and working experiences. Followed by level of evidence and source of evidence used by librarian. This questions designed in the form of 7-Likert scale which was adapt and adopt from Gavgani (2009). The last section also in the form of 7-Likert scale consisting questions on librarian perception on EBL domains. This question is adopted from Koufogiannakis and Crumpley (2002).

Data was extracted and entered into IBM SPSS Statistical version 20. Validity and reliability test was done to confirm the content of the questionnaire. Pre-test and pilot test were conducted to ensure the quality and validity of the questionnaire. Comments from participants were taken into consideration. Some alterations were made and final questionnaire was produced. Data analysis for this study comprises descriptive statistics. The descriptive statistics were used to delineate demographic features of the respondents.

4. Findings and Discussion

4.1 Demographic data

Table 1 showed that 85.5 percent of the questionnaire were returned. The returned responses were from 30 percent male and 70 percent female respondents. In terms of their education qualification, 51 percent were with master's degree, 48.5 percent with first degree and 0.5 percent with PhD.

Table 1:
Returned questionnaire, education level and age

Returned questionnaire:	
Returned	85.5 %
Not returned	14.5 %
Education level:	
Degree	48.5 %
Master	51 %
PhD	0.5 %
Age:	
20-29	13.5 %
30-39	53 %
40-49	21.5 %
50 and above	12 %

Majority of the respondent was between the age of 30 - 39 years old (53 percent); 21.5 percent were between 40 - 49 years old; 13.5 percent were between 20 – 29 years old; and 12 percent were more than 50 years old.

Table 2:
Working experience and EBL knowledge

Working experience:	
Less than 1 year	1.5 %
1-5 years	18 %
6-10 years	34 %
11-15 years	21.5 %
16-20 years	10 %
21 years and above	15 %
EBL knowledge:	
Know	56 %
Did not know	44 %

With regards to working experience in library field, the results showed 34 percent of the respondent have been involved in librarianship between 6 - 10 years and only 1.5 percent are new in the field of librarianship with experience less than a year.

In order to clarify the current state of EBL concept in Malaysian academic library, respondent was questioned whether they have heard of EBL concept before. It was found that 56 percent of the respondent have heard of EBL practices. However, the other 44 percent did not have any idea or knowledge about the concept.

This findings also revealed that EBL concept is recognised by academic librarian of Malaysia. The outcome is similar with to Gavgani (2009) study, where she found that 50.7 percent of Iranian librarian know EBL and most of them got to know EBL through literature (54.1 percent), friends (28.1 percent), discussion group (18.75 percent), and other media (28.1 percent). While Rabi (2016) revealed that 67 percent of Nigerian librarian are aware of EBL concept and 69 percent are aware that EBL concept is to assist them in solving problem. On the other hand, Declve (2010) found only 14 percent of Belgian librarian understood EBL concept.

4.2 Evidence used in library practice

In order to get a clearer picture on EBL current practices in Malaysian academic library, respondents were given few evidence activity and instructed to rate how frequent the use of such evidence for the activities.

Table 3:
Frequency analysis for evidence used in library practice

	Never	Seldom	Sometimes	Occasionally	Regular	Often	Almost all the time
Decision making	0%	0.5%	8%	11%	26%	37.5%	17%
Problem solving	0%	0.5%	5%	11%	26%	40%	17.5%
Improve judgment	0.5%	1%	7.5%	12.5%	24.5%	36%	18%
Persuade individual	0%	2.5%	8%	17.5%	28.5%	29%	14.5%
Negotiate individual	0%	3%	8.5%	16%	26.5%	34.5%	11.5%

Table 3 demonstrated five level of evidence use in EBL activities; comprises of decision making, problem solving, improve judgment, persuade individual and negotiate individual. In relation to decision making, 37.5 percent believed that they often use EBL in decision making and 0.5 percent seldom employ it in their job. As for problem solving, the findings showed

that 40 percent believed that they often use it and 0.5 percent of the respondents answered seldom in solving a particular problem.

The study discovered that 36 percent respondent believed that they often use EBL in improving their verdict; and 0.5 percent never use evidence to improve their judgments. It was found that 29 percent responded that they often use EBL and 2.5 percent of the respondents answered seldom in persuading people. While 34.5 percent believed that they often use EBL in negotiation activities and 3 percent answered seldom do that.

The overall level of mean (M) for evidence used in library practice is 5.34, represents standard deviation (SD) = 1.198. The findings also pointed out mean for decision making is M = 5.43 and standard deviation (SD) = 1.163, respectively. Followed by problem solving (M = 5.53, SD = 1.089), improve judgment (M = 5.40, SD = 1.236), persuade individual (M = 5.17, SD = 1.253) and negotiate individual (M = 5.16, SD = 1.249). In general, the outcome of the study discovered that Malaysian academic librarian employ evidence in day to day practice but they usage is only average.

The outcome shows some positive sign that Malaysian academic librarian use evidence for good purpose that benefits the library and themselves. This proved that librarians will search evidence when they have query while managing some task. Gavgani (2009) had gathered librarian views and found that most of them agreed that EBL ensure risk free in decision making and improves the LIS profession and practices. Rabi (2016) found that 69 percent of the librarians are aware that EBL supports their decision based on research. In addition to that 17 percent agreed that EBL use the best available evidence in problem solving. In contrast, Declve (2010) found 7 of the respondents claimed they sometimes use evidence for their work and 1 response that they usually use evidence for any library activity.

Koufogiannakis (2015) mentioned that librarian tend to use statistics as their based sources of evidence. It is because data such as book circulation, usage of electronic materials, inter library loan, document delivery services and user access to library webpages are easily gained. Sometimes information gathered from literature can gives new knowledge to librarian so that they can make better decision. But, librarian prefer a problem solution kind of information can easily applied and relevant to the problem they faced (Weber and Vonhof, 2009). While Lerdal (2006) suggested the solution to the problem should combine with experience and research.

Appraising knowledge and experience from other people is a tough. But Rousseau and Gunia (2016) found that evidence based activity increases practitioners knowledge and experience includes their judgment. Thus, it shows that this state can easily influence a person's judgement. Morewedge and Kahneman (2010) indicated that 'individuals are likely to find support for their own judgments, experiencing little uncertainty while acting on their intuitions' while Soll and Larrick (2009) stated that it is because an individuals tend to overweight their own opinions'. So they can evaluate situations and focus on wise judgment so that they can make a good decision even under pressure (Heath & Heath 2012; Yates & Potwowski, 2012).

Gwang (2011) stated that a leader will act as persuader to achieve several goal in organization. They can use significant evidence to support them to persuade individual and to succeed the negotiation (Booth, 2002). In this situation librarian had data, information and relevance evidence to support future decisions. With this they able to persuade people around them about important things on what, when, why, and how to be done in order to solve a particular problem. Sometimes this skill is essential to reconfigure library service model, library new trend especially the technology in the library, library new program and

services. Rubin (2008) identified that a study need to be carried out to strengthen the evidence and proceed the next action according their preferences based on wise judgment.

Negotiation are essentials to library. Library must fight and work hard to negotiate with university to be given freedom of managing library fund. It is also important to minimise the budget cut impact on library and allow library to allocate appropriately according to priority and necessities. In another hand negotiation skill is important especially in purchasing library collection and facilities. Sollenberger and Holloway (2013) identified that libraries need to have sufficient information so that they can negotiate prices and get bargain trade with flexible benefits that given advantage to both library and users. Negotiation process may vary from vendors but value provided such as discount, free trial subscription, continuous training from vendor, system update and maintenance service. Negotiated agreement provided by vendors also important so that management know which sets of terms and conditions involved in the process. So that no party are neglected. Along the negotiation process it also ease library to make vendor appraisal at the end of the year.

4.3 Source of evidence used in library practice

In addition to source of evidence, Table 4 showed six sources of evidence in this study which include observation, survey, interview, report & statistic, article & literature and knowledge & experience. In relation to observation, most of the respondent (29.5 percent) agreed that they regularly employ observation as source of evidence; and 1 percent never use observation as source of evidence.

Table 4:
Frequency analysis for sources of evidence used in library practice

	Never	Seldom	Sometimes	Occasionally	Regular	Often	Almost all the time
Observation	1%	5.5%	6.5%	15%	29.5%	29%	13.5%
Survey	2%	6.5%	15%	21.5%	21%	21.5%	12.5%
Interview	2%	8%	11.5%	21.5%	26.5%	24%	6.5%
Report & statistics	0%	0.5%	2.5%	5.5%	21%	39.5%	31%
Article & literature	1%	2%	6.5%	21%	34%	26.5%	9%
Knowledge & experience	0.5%	0%	2%	6.5%	30.5%	39%	21.5%

Most of the respondent strongly believe that they occasionally (21.5 percent) and often (21.5 percent) utilized survey as one of the sources of evidence and 2 percent responded never use survey as source of evidence. 26.5 percent respondents confidently responded they regularly employ interview as one of source of evidence that they usually use and 2 percent of the respondents never use interview as one of the sources of evidence.

The findings also reported that 39.5 percent respondents often use report & statistics as one of the source of evidence in their practices and 0.5 percent said seldom use it. 34 percent of the respondents assured that they regularly utilized article & literature as source of evidence and 1 percent said they never use it as source of evidence. In relations to knowledge & experience, the survey showed 39 percent do employ their knowledge and related experience on any associated issue as source of evidence. 30.5 percent regularly use their own knowledge and experience and 0.5 percent have never used it as source of evidence. The overall level of mean (M) for evidence used in library practice is 5.16, represents standard deviation (SD) = 1.106. The findings also delineated for observation is mean (M) = 5.08 and standard deviation (SD) = 1.378. Followed by survey (M = 4.68, SD = 1.530), interview (M = 4.61, SD = 1.439), report and statistics (M = 5.90, SD = 1.019), article and literature (M = 5.01, SD = 1.201) as well as knowledge and experience (M = 5.70, SD = 0.998).

The outcome indicated a good sign that Malaysian academic librarian utilised well all six sources of evidence used in library activities. The finding is supported by Richey's (2014) study that showed librarians do read articles from library journal, survey, statistics, observation, standards and guideline, evaluation reports and informally gather evidence from stakeholders. Besides, they are initiated to adapt the knowledge they gain into practice that are worth sharing with colleagues. While Howlett and Howard (2015) stated that their respondents had acknowledged professional knowledge and experience as a solid source of evidence as librarian commonly use their professional social circle and network to get related evidence that can support their information need. While Gavvani (2009) found that most of the librarian choose literature as the first source then use knowledge and experiences from other libraries, senior co-workers and individual experience. However, few librarian use survey (20 %), qualitative and quantitative method (6.7 %).

Koufogiannakis (2015) stated that most of the time librarian believed that statistics shows the whole picture of library situation. She added that statistical data from circulation, reference, interlibrary loan data, room reservations and usage data from websites can be used to solve problem and making decision in building library collection as well as reference services. Librarian can monitor access trend of electronic journals and electronic books, so that at the end of the year they can decide whether to continue or cancel the subscription or add other title list for potential used because electronic materials are highly used by users. Some library use observation like Gwang (2011), Ngalla (2007), Etuk (2008) and Akor (2009), they adopts observation to support library management to conduct effective library services and improve existing policy. Observation adopted to monitor critical appraisal activity in monthly journal club (Booth, 2007). While interviews used to get exhaustive information either focus group, face-to-face, close-ended question or telephone interview. Sharing knowledge and experience also can be done through interview session. Different source of evidence are needed depend on situation, necessities of a library and the context of the problem. Usually when library encountered new problem, literature is the main source to get to know the general information about it (Koufogiannakis, 2013). Unfortunately it is not always match and satisfy the needs because sometimes it is too theoretical but somehow useful. However, librarians are not prepared to ignore article and literature (Koufogiannakis,

2013). In addition knowledge and experience from other person or libraries also important because some problems they had confronted before. Librarian can take note what kind of action taken and reflect the consequence from the actions.

4.4 The domains of EBL

The results indicates the usage of EBL among Malaysian academic librarians has level of mean (M) = 5.83, represents standard deviation (SD) = 0.921. The findings also pointed out mean for Reference is M = 5.83 and standard deviation (SD) = 0.934, respectively. Followed by Education and training (M = 5.91, SD = 0.858), Collections (M = 5.71, SD = 0.974), Management (M = 5.84, SD = 0.950), Information access and retrieval (M = 5.92, SD = 0.853), and Marketing and promotion (M = 5.79, SD = 0.956). In general, the outcome of the study discovered that Malaysian academic librarian had a slight confidence in adopting EBL in the following library activities.

Santra (2007) stated that education and training for Malaysian librarian is limited principally specialized training like EBL. This situation clog the efficiency of evidence based activity in library. Gavgani (2009) found that most of librarian use evidence to gather materials on library guidelines and adopt evidence based activities to strengthen their library collection. Half of Iranian librarian agreed that EBL activities effectively support the management of a library (Gavgani, 2009). Gavgani (2009) mentioned that EBL ease librarian to conduct information and evidence searching systematically. Gavgani (2009) stated that this activities encourage user studies and new service trends in library.

Domains of EBL was introduced by Crumpley and Koufogiannakis (2002) consist of 6 area of librarianship. Abd Manaf and Mohamad Bahtiar (2015) indicated that the six domains helps librarian to narrow down keyword search and emphasis on question they want to answer. The domain will guide librarian and improve retrieval of relevant literature.

5. Recommendation and Future Work

Based on the findings and discussion above, it is suggested that more training and special course for EBL need to conduct either internal training in the library as well as at the national level with alliance from National Library of Malaysia (PNM), International Medical University (IMU) and Hamdan Tahir Library (USM). More campaign and initiatives should be conducted to increase librarian engagement with EBL. At the same time develop some local definition for EBL, create network with other libraries to build some interest in evidence-based activities, shared local evaluation and research evidence to build evidence-based community in academic setting and nurture active education learning by special interest group especially existing EBL community in Malaysia to promotes EBL practices.

For future research, this study can be expended into other types of library. It is also important to use qualitative approach so that more comprehensive evidence on Malaysian academic librarian attitude towards EBL can be gathered.

6. Conclusion

This is a significant study about EBL practices among Malaysian librarian. This study reveal the application of EBL among Malaysian librarian. Generally, the state of EBL practices in Malaysian academic libraries is considerably behind from other library outside Malaysia (Hassan et. al. (2009). Librarians only know the basic components of EBL, however the level of use is still average. Malaysian librarian know the types of relevant evidence source that can be used to gather information but the application in daily work is minimum. This indicate that

librarian aware and at the same time EBL become parts of library routine. Thus, collecting, organizing, documenting and sharing evidence becomes a good starting point to accelerate EBL engagement among Malaysian academic librarian.

References

- Abd Manaf, Z., & Mohamad Bahtiar, I. N. (2015, November). Evidence-based Librarianship (EBL): A Historical Perspective. Paper presented at Seminar Kepustakawanan 2015, Sarawak, Malaysia.
- Akor, P. U. (2009). Influence of University Library Leadership Styles on the Job performance of Professional Librarians in North Central Zone of Nigeria (Unpublished doctoral dissertation). University of Nigeria, Nsukka, Enugu State, Nigeria.
- Booth, A. (2007). Who will appraise the appraisers?—The paper, the instrument and the user. *Health Information and Libraries Journal*, 24, 72–76.
- Booth, A. (2002). From EBM to EBL: Two steps forward or one step back? *Med. Ref Serv Q.*, 21(3), 51-64.
- Cole, B. & Ryan, P. (2016). Chapter 10 – Public libraries. In D. Koufogiannakis & B. Brettle (Eds.), *Being evidence based library and information practice* (pp. 105-120). London: Facet.
- Dalrymple, P. W. (2010). Applying evidence in practice: What we can learn from healthcare. *Evidence Based Library and Information Practice*, 5(1), 43-47.
- Decleve, G. (2010). Using evidence in practice. *Health Information and Libraries Journal*, 27, 332-337.
- Epstein, L., and King, G. (2002). The rules of inference. *University of Chicago Law Review*, 69, 1-6.
- Etuk, M. E. (2008). The Relationships existing between planning, organizing, staffing, coordination and physical facilities and availability of postgraduate theses in universities in the South- South Zone of Nigeria. *Journ of Educ Media & Lib Science*, 45(4): 433- 441
- Gavgani, V. Z. (2009). The perception of evidence based library and information practice among Iranian medical librarian. *Evidence based Library and Information Practice*, 4(4), 37-57.
- Glynn, L. (2006). A critical appraisal tool for library and information research. *Library Hi Tech*, 24(3), 387-399.
- Gwang, J. M. (2011). Organizational factors affecting library resources provision in university libraries in North Central Zone of Nigeria. *Journal of Applied Information Science and Technology*, 5.1, 43-50.
- Haglund, L. (2009, September). Introducing evidence based library and information practice in Sweden. Paper presented at Positioning the Profession: The Tenth International Congress on Medical Librarianship, Brisbane, Australia.
- Hassan, N., Alli, W. E. W., & Chik, E. R. E. (2009, June). Practicing evidence base in Malaysian libraries : A CSI challenge? Paper presented at International Conference on Libraries, Pulau Pinang, Malaysia.
- Heath, D & Heath, D. (2012). *Decisive: How to make better decisions in life and work*. New York: Crown.
- Hiller, S., Kyrrilidou & Self, J. (2008). When the evidence is not enough: Organizational factors that influence effective and successful library assessment. *Performance Measurement and Metrics*, 9(3), 223-230.

- Howlett, A. & Howard, Z. (2015). Exploring the use of evidence in practice by Australian special librarians. *Information Research*, 20(1), 1-12.
- IMU (2013). President's report 2013: 21 years of innovation and excellence. Retrieved from <http://imu.edu.my/imu/wp-content/uploads/president-report-2013.pdf>
- Johannsen, C. G. & Pors., N. O. (2012). EBLIP and organisational recipes: An analysis of the adoption and interpretation of EBLIP in the library and information sector. In A. Spink & J. Heinstrom (Eds.), *Library and Information Science Trends and Research* (43-65). Emerald Group Publishing: Europe.
- Koessler, B. D. (2009). Factors influencing rural nurses attitudes and beliefs towards evidence based practice (Doctoral dissertation). Retrieved from <http://scholarworks.montana.edu/xmlui/bitstream/handle/1/1660/KoesslerB0509.pdf>
- Koufogiannakis, D. (2015). Determinants of evidence use in academic librarian decision making. *College & Research Libraries*, 76(1), 100-114.
- Koufogiannakis, D. (2013). How academic librarians use evidence in their decision making: Reconsidering the evidence based practice model (Doctoral dissertation). Retrieved from http://cadair.aber.ac.uk/dspace/bitstream/handle/2160/12963/Submission_Koufogiannakis_D.pdf?sequence=1
- Koufogiannakis, D., & Crumley, E. (2002). Evidence-based librarianship. *Feliciter Issue*, 3, 112-114.
- Krejcie, R.V., & Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Lerdal, S. N. (2006). Evidence-Based Librarianship: Opportunity for law librarians?. *Law Library Journal*, 98(1), 33-60.
- Morewedge, C. K. & Kahneman, D. (2010). Associative processes in intuitive judgment. *Trends in Cognitive Sciences*, 14(10), 435-440.
- Ngalla, R. M. (2007). Management problems of university libraries in Cameroon. Nsukka: Department of Library and Information Science.
- Rabiu, A. M. (2016). Librarian's perception of evidence based library and information practice (EBLIP) and information society as vital tool for National development. *Journal of Applied Information Science and Technology*, 9(1), 63-72.
- Richey, J. (2014). School librarians' experiences with evidence-based library and information practice. *School Librarian Research*, 17, 1-25.
- Rousseau, D. M. & Gunia, B. C. (2016). Evidence-based practice: The psychology of EBP implementation. *Annual Review of Psychology*, 67, 667-692.
- Rubin, A. (2008). *Practitioner's guide to using research for evidence-based practice*. New Jersey: John Wiley & Sons.
- Santra, N. (2007). Academic medical librarians in Malaysia: What roles do they play? *Malaysian Journal of Library & Information Science*, 12(1), 83-96.
- Soll, J. B. & Larrick R. P. (2009). Strategies for revising judgment: How (and how well) people use others' opinions. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 35, 780-805
- Sollenberger, J. E., & Holloway, R.G. (2013). The evolving role and value of libraries and librarians in health care. *JAMA*. 310(12):1231-1232.
- Taylor, P., Davies, L, Wells, P., Gilbertson, J., & Tayleur, W. (2015). A review of the social impacts of culture and sports, available at

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/416279/A_review_of_the_Social_Impacts_of_Culture_and_Sport.pdf .

- Weber, M. & Vonhof, C. (2009). Evidence based library and information practice introduction to key concepts and principles. *BOBCATSSS 2009*. 1-8.
- Wilson, V. (2011). An international association of EBLIP, Redux. *Evidence based Library and Information Practice*, 6.4, 28-29.
- Wilson, V. (2015). The Open Access Conundrum. *Evidence based Library and Information Practice*, 10 (3), 1-2.
- Yates, J.F. & Potworowski, G. (2012). Evidence-based decision management: Handbook of evidence-based management. New York: Oxford.