

The Use and Potential Use of the Evidence Based Library and Information Practice by Postgraduate Students in the Departement of Information Studies at Sultan Qaboos University in Oman

This study aims to explore to what extent the methodology courses in the Department of Information Sciences (IS) College of Arts and Social Sciences (CASS), in Sultan Qaboos University (SQU); Sultanate of Oman covers certain issues related to EBLIP. In addition, the study also analyses the titles and the methodology of the Master and PhD thesis to find out if there are some related titles and if EBLIP is used. The further goal of the current study is to explore the barriers to use the EBP or EBLIP by both the department and the postgraduate researchers. The study used qualitative approach, as this study aims to understand and explore the use and potential use of EBLIP by postgraduates' students in Department of IS at SQU in Oman. The study used content analysis of 64 topics of Master and PhD degrees. To get a deeper understanding of the case it interviews 8 students four from each degree (4 Master and 4 PhD). This study has found that the degree plan for Master students program in IS has one course about research methodology and it is offered in the fall semester., The interview with PhD students showed that PhD students do not have a course as they have only thesis to do. The study found the sample of the study confirmed that they have not heard about the EBLIP method from their faculty members or supervisors. As well the title of the 64 Master and PhD thesis were not related to EBLIP. The study reached the conclusion that the favorite topic for the postgraduates is the networks and the Internet, where it has the highest percentages within the thesis that were discussed (51.56%) as well as it has the highest percentage among the topics for PhD proposal (54.34%). Further, the study concluded that the major barrier to use EBLIP is the ignorance of the department as it is not part of the department culture.

Key Words: Evidence based practice, Department of Information Studies.

Introduction

Library and Information Science (LIS), like other fields of study, needs evidence as it depends on information, knowledge and science. Information and science, as we know, always need the right and up to date information. This is supported by Hjurland (2000) who specified that LIS is a professional domain drawing on many kinds of knowledge. LIS is both knowledge producing and knowledge utilizing. The information and the knowledge that the field needs have to have a base; this base must be supported with evidence since information is utilized in decision-making. Thus, information specialist or librarians have to provide the information with the evidence.

Actually, there are many ways and methods to collect information; some of these techniques primarily come from resources such as scientific articles, books, formal resources, interviews, etc. Moreover, ordinary people depend on social media to collect information, as Pepitone, (2010) believes social media is one such

1 technology that is being increasingly used as a source of information. However,
 2 although social media is increasingly used by ordinary people, we do not know to
 3 what extent is the information available there right. This is in agreement with what
 4 Westerman; Spence & Van Der Heide (2012) think i.e. there is a major question
 5 surrounding the use of social media, as an information source is how people assess
 6 the credibility of this information. In fact, social media is not only used by
 7 ordinary people but also by specialists in our field, and they use it to make
 8 decision, and to continue professional development. For example, a study by
 9 Monagle & Finnegan (2018) revealed that social media is used by new
 10 professionals in the UK and Ireland to uptake continuing professional
 11 development. Also in a recent study by Okuonghae, Achugbue & Ogbomo (2018)
 12 indicates that the librarians in the University of South-South geo-political zone of
 13 Nigeria use social media tools such as Facebook, WhatsApp, Twitter, Blogs and
 14 LinkedIn for the purpose of informal scientific communication.

15 As mentioned earlier, the field of LIS needs right and specific information all
 16 the time, especially if this information is needed to make a decision. In this case,
 17 we need information to build on Evidence-Based Practice (EBP). EBP is a
 18 comprehensive process which considers all factors such as expertise, the client's
 19 preferences, values, and the context within which decisions are being made by
 20 using the skills such as identifying, searching and interpreting the best scientific
 21 evidence (Murphy, McCarthy, McAllister, & Gilbert, 2014; Samonte, Vallente,
 22 2016). Because LIS needs evidence to take decisions especially for the policy
 23 makers and it needs skills to search for information as well as skills in analyzing
 24 the information, it has to use EBP method.

25 EBP is now used in LIS and commonly referred to, as Wilson (2017) stated,
 26 as evidence based library and information practice (EBLIP). According to
 27 Koufogiannakis (2013), EBLIP provides a structured approach to decision making.
 28 The process for use of EBLIP starts with an issue or problem that arises in the
 29 workplace – an area in which librarians are looking to improve service. While the
 30 EBLIP model has grown in use over the past 15 years, it has not been without
 31 criticism. Hunsucker (2007) cites several criticisms, among them that the EBLIP
 32 framework is too narrow and that it has been “too unreflectively taken over from
 33 the early, orthodox version of evidence-based (clinical-epidemiological) medicine”
 34 (p. 2). In addition, Banks (2008) added EBLIP is not sufficiently responsive to the
 35 reality that local contexts can trump even the most rigorous evidence and EBLIP
 36 cannot answer many types of questions, particularly value-laden questions.
 37 However, whatever the criticisms might be, use of EBLIP is still an important
 38 model that the decision makers at LIS need.

39 To insure the validity and the success of EBLIP, the LIS schools have to teach
 40 it to their students either at the undergraduate or postgraduates studies.

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Background to the Study

The IS is in CASS at SQU, Sultanate of Oman. SQU is the only public university in the Sultanate and it was established in 1986. Because SQU is the only public university in the Sultanate, the education and the services provided to the students are free of charge. SQU has nine colleges they are College of Agricultural and Marine Sciences (CAMS), College of Arts and Social Sciences (CASS), College of Commerce and Economics (CCE), College of Education (CE), College of Engineering (CENG), College of Law (CL), College of Medicine and Health Sciences (CMHS), College of Nursing (CN) and College of Science (CS).

CASS has 11 departments, one of which is the Department of IS. This department was established during the academic years 1987–1989. The first batch of students to enroll in this department's course had only 21 students, which increased to 80 by 2013. The name of the department was modified several times as the field evolved. In 1987, it was called the Department of Library Science and Documentation and then re-named as the Department of Information Science in 2002. The department was yet again renamed as the Department of IS in 2011. The Department provides students with different skills in cataloguing, classification, database design, website creation, information seeking behavior, etc. In addition, the undergraduate and postgraduates' students have courses related to methodology. In methodology, course students take qualitative and quantitative approaches with different methods.

The Department offers three academic programs: The Bachelor's degree in Library and Information Science; the Master's degree in Library and Information Science, and the Doctor of Philosophy. Graduates of the three programs have the opportunity to work in public, university, and special libraries, as well as in learning resource centers in both public and private sectors.

The Problem of the Study

Although the Master's degree started in the Department of IS in 2004 and the PhD in 2011, the researcher (one of the faculty members at the IS Department) noticed from the proposal seminars, that she attended for the Master and PhD candidates, there were no thesis proposals about EBLIP, except for one PhD proposal that was supervised by this researcher. Although some of the candidates' work as decision makers, the researcher does not know if the Master and PhD students studied the EBLIP in their methodology courses.

The Aims of the Study

In light of the problem of the study, the study aims to:

1. Explore to what extent the methodology courses in the IS in CASS, SQU, Sultanate of Oman covers some issues about EBLIP.

2. Analyze contents for the titles and the methodology of the Master and PhD thesis to find out if there are some titles or methodology used, related, or used the EBLIP.
3. Explore the barriers to use the EBLIP at the department of IS or by the postgraduates' researcher.

Literature Review

This part of the study will cover the use of EBP in general and EBLIP in particular, the literature will go from general to more specific or from EBP to EBLIP. In a study by Milner, Bradley & Lampley (2018) about the health professionals' faculty beliefs, confidence, use, and perceptions of organizational culture and readiness for EBP, the study had sixty-nine faculty returned usable surveys (25.5% response rate). Mean EBP beliefs score was 89.49 (SD = 10.94) indicating respondents had a firm belief in and confidence in their ability to implement and teach EBP. Mean EBP use was 32.02 (SD = 20.59) indicating that respondents taught and implemented EBP between 1 and 3 times in the last 8-weeks. Mean EBP culture and readiness score was 90.20 (SD = 15.23) indicating essential movement towards a sustainable culture of college-wide integration of EBP. Mean scores for beliefs/confidence were higher for full-time clinical faculty compared to other groups [$F(2, 55) = 0.075, p = 0.928; \eta^2 = 0.003$]. Adjunct faculty reported higher EBP behaviors expected by health profession educators in the last 8-weeks compared to other groups [$F(2, 55) = 0.251, p = 0.779; \eta^2 = 0.009$].

In (2009) Bayley, Ferrell, & McKinnell, conducted a study about the use of EBP to inform decision-making of 23 public services staffing in an academic health sciences library. The study concluded that few studies have derived an empirical basis on how library and information professionals conceive and experience EBLIP as the object of study.

In a study by Kronenfeld, Stephenson, Nail-Chiwetalu et al. (2007) about the use of EBP in nursing and the allied health professions in the United States the study found some obstacles to the application of EBP such as competing job tasks, the need for additional training, and prevalent attitudes and behaviors toward research among practitioners. Librarians' skills in searching, organizing, and evaluating information can contribute to furthering the development of EBP in a given profession.

With regard to the use of EBLIP in libraries, according to the literature, little is known about how library and information practitioners conceptualize EBLIP. In fact, few empirical studies have explored this. One of these studies: the study by Miller, Partridge, Bruce, Yates & Howlett (2017) about the implementation of EBLIP by academic libraries found that the intuitive, non-linear nature of EBLIP and decision making and the collaborative or shared interactions within staff teams and across institutions is associated with EBLIP in academic libraries. The findings of this study have the potential to assist library educators, associations,

1 and others involved in supporting, preparing, and educating LIS professionals at
 2 every career stage to develop the skills, knowledge, mindsets, and actions needed
 3 to facilitate EBLIP. The findings also help inform the design of professional
 4 development programs and workshops in EBLIP, leadership in academic libraries
 5 and more broadly, leadership within the information sector.

6 Koufogiannakis's (2012) study of academic librarians' use of evidence found
 7 that academic librarians were, for the most part, unsure what constituted evidence,
 8 but regardless of the source, they were willing to consider whatever may inform
 9 decision making.

10 In a study about the use of EBP in Gulf, Abu Hasheesh & AbuRuz (2017)
 11 conducted a study aimed to describe nurses' knowledge, attitudes, and practice
 12 about EBP in Saudi Arabia. The study shows Knowledge of EBP had the highest
 13 mean (4.66 ± 1.16), followed by use of EBP (4.09 ± 1.31), and then attitudes
 14 toward EBP (3.81 ± 1.13). Younger nurses tend to use EBP more than older nurses
 15 ($r = -0.18$, $p < 0.05$). The conclusion for the study was that although, nurses had a
 16 moderate knowledge about EBP, however, their attitude toward EBP is lacking. It
 17 is, therefore, desirable that hospital management in Saudi Arabia needs to develop
 18 a comprehensive strategy for promoting health awareness on this practice and
 19 build EBP competencies through proper training. Moreover, hospital libraries
 20 should also play an active role in developing databases to provide an opportunity
 21 for nurses to communicate with the most powerful and the latest research findings
 22 and apply it during clinical practice.

23 However, the literature review surrounding the use of EBP by librarians in
 24 general showed barriers from librarians to use EBP. For instance, a study by Kerry
 25 (2018) aims to find out if the librarians are collaborating with nurses and
 26 professional nursing organizations to teach evidence-based practice (EBP) in
 27 continuing education courses, workshop, classes, or other training activities. The
 28 study revealed that there are a small number of librarians collaborating with
 29 professional nursing organizations to teach EBP continuing education courses,
 30 workshops, classes, or other training activities. Koufogiannakis (2013) cited that
 31 the EBP process has not yet been fully accepted or integrated within the regular
 32 practice of librarianship. It continues to grow and become more established. This
 33 review shows that there are examples of both the barriers and the collaboration and
 34 the integration of EBP with the practice of the libraries.

37 **Methodology of the Study**

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 39 The study used qualitative approach, as this study aims to understand the use
 40 and potential use of EBLIP by postgraduates' students in the Department of IS at
 41 SQU in Oman. According to Berkwits & Inui (1998), qualitative research is a form
 42 of inquiry that analyzes information transferred through language and behavior in
 43 natural settings. It is used to capture expressive information not conveyed in
 44 quantitative data about beliefs, values, feelings, and motivations that underlie
 45 behaviors.

According to Ventres & Frankel (1996) some qualitative approaches use technical methods (such as statistical content analysis) to determine the significance of findings, while others rely on researchers' thoughtful reflection. The study used content analysis for the title and the methodology of the thesis for Master and PhD degree. To get more understanding for the case, it interviewed eight students - four from each degree (4 masters and 4 PhD).

Population Sample of the Study

With regard to study population, Table 1. shows the number of postgraduates' students and the total number of thesis.

Table 1. *Number of postgraduates' students and thesis at IS Department*

No	Program	Registered	Graduated	Number of thesis that discussed	Number of thesis proposal
1	Master	*40	60	60	40
	PhD	6	4	4	6
Total		46	64	64	46

As table 1. Illustrates, the total number of current number of Master students at IS Department is 40, while for PhD it is six. In addition, Table 1. shows that the graduates from Master program are higher than the registered graduate students (60) from the department. Similarly, the table demonstrates that the registered or active PhD students are six. Actually because of the route of PhD program at IS Department is thesis, the regulation for SQU is not to accept many candidates for PhD if they are in coursework route.

In this study, as mentioned earlier, sample for the interview involved eight students (4 Master and 4 PhD). The content analysis covered the total number of thesis that is already discussed (64) and the total number of thesis proposal (46).

The Study Results and Discussion

To what extent the methodology courses in the IS at CASS, SQU, Sultanate of Oman covers some issues regarding EBLIP?

The researcher believes that methodology courses aim to connect the students with the real research world and help them learn solve the problem of the research that is presented to them. Through research methodology, the students develop their research skills. This is supported in Yadav & Beckerman (2018) who explored that the implementation of case studies in a plant pathology course has its impact on student learning and engagement. The study indicated that case studies

1 helped students develop critical thinking skills required to diagnose plant health
2 problems while actively engaging them in the course content.

3 With regard to this question, this study has found that the degree plan for
4 Master students program in IS has one course about research methodology and it is
5 offered in the fall semester. This result was confirmed by the interview with the 4
6 master students. Moreover, the interview with 4 PhD students showed that PhD
7 students do not have a course, they have thesis only. The researcher thinks that the
8 Department of IS offers only course of research methodology because the
9 undergraduate students already do a course in research methodology in semester 7
10 of the degree plan of the department. It is possible that the IS Department thinks
11 since they teach the same students (undergraduates and postgraduates) the students
12 will have to do the research methodology twice. The researcher thinks if it is
13 acceptable for Master Students to have course of research methodology because
14 they had it when they were undergraduates, it is not acceptable for PhD students to
15 have their thesis without a course in methodology. This is because the PhD
16 program at the Department of IS is interdisciplinary program between three
17 colleges at SQU. These colleges are CASS, CAMS and CCE. So some colleges do
18 not have course in research methodology or they do not know about the
19 appropriate research methods at the IS. In addition, most of the registered students
20 at this program are not from the IS Department. This is because as Green,
21 Ottoson, García, Hiatt, & Roditisit (2014) mentioned the aim of the research is to
22 inform action, so if the PhD students do not have good skills in research, their
23 thesis will not inform action. In addition, research must always be of high quality
24 in order to produce knowledge that is applicable outside of the research setting.
25 Therefore, if the PhDs do not take course in research methodology, it will be hard
26 to achieve the quality and inform action. This is in agreement with Hongjie,
27 Shikui, Wenqin & Leiluo (2018), who found that when the Chinese PhD students
28 prepare well, they can be a force. Thus, China has gradually constructed a doctoral
29 education and quality assurance system with Chinese characteristics and realized
30 its strategic goal of training high-level talents based in China. Their PhD students
31 have already become an important force in academic paper production.

32 With respect to the postgraduates' knowledge about EBLIP, the sample of the
33 study (8 postgraduates) confirmed that they have not heard about the method of
34 EBLIP from their faculty members or supervisors. The researcher thinks that may
35 be the concept of EBP is new for faculty members, or they may not have taught
36 students about it because it connects with decision-making. This is not in
37 agreement with Milner, Bradley & Lampley (2018) who find essential movement
38 toward a sustainable culture of college-wide integration of EBP. However, this
39 result is in agreement with Abu Hasheesh & AbuRuz (2017) who found that EBP
40 is a new term to be used in Saudi Arabia. Saudi Arabia and Sultanate of Oman
41 share almost the same culture in education and research. The sample would not
42 have heard about EBLIP because it comes from medical field and because as
43 Booth (2011) found in his study that they are obstacles to use EBP by librarian
44 because of poor access to the evidence and inappropriate orientation of research.

Therefore, it is possible that the faculty members did not teach the sample of this study about it.

Contents analysis for the titles and the methodology of the master and PhD thesis to find out if there are some titles related to or used the EBLIP

The content analysis for the title and the methodology of the Master and PhD thesis showed that the titles of the 64 theses that we have already discussed at the department are not related to EBLIP. Even the methodology, that the postgraduates applied were not related to EBLIP. May be the title of the thesis and the methodology are not related to EBP or EBLIP because, as the researcher mentioned previously, the postgraduates have not heard about it at their courses, although some of the graduates from postgraduates programs are decision makers. This result is in agreement, as we said previously, with Abu Hasheesh & AbuRuz (2017) who found that EBP is a new term to be used in Saudi Arabia. Aldugiemani, Alanezi, Alshammari, Al-Shamary, Alqahtani & Alreshidi (2018) showed in their study that students' knowledge and attitude to EBM were low. About 80.8% answered incorrectly on the components of EBM. Actually if the postgraduates at the Department of IS have not heard or learnt about EBLIP or EBP at their methodology course or they have not practiced at their thesis, it is bound to happen that their knowledge will be low. The researcher believes: for the benefit of the country, the Department of IS has to provide students with all the new trends in science especially if it is related to research and methodology because without research, countries will not develop. On other hand, if the students have not heard about EBLIP and they have never practiced they will not realize its importance in research. This is what Turk, Al Saadi, Alkhatib, Hanaf, Alahdab, Firwana, Koudsi & Al-Moujahed (2018) have found in medical students in Syria. They do not participate in research during their training, which might negatively affect their understanding of the importance of research and their future ability to conduct research projects. Turk et al. (2018) continue, given the crisis in Syria, there is a critical need for the application of EBP in emergency clinics throughout the affected area. As well as, those medical students are a vital force that can effectively participate in establishing an extended increase in research production and activity in Syria. Moreover, without new trends in research, the humanity will stop progressing, as stated by Portney & Watkins (2015) who believe research is the only known tool for the advancement of our knowledge of biology and medical sciences. It is the only method, with proven record, which allows us to elevate the human condition, both in sickness and health.

In fact, the content analysis of the thesis of postgraduates found three groups of topics of the thesis categories.

1 **Table 2.** *The topics category of the thesis at IS Department*

No	Topics category for postgraduates thesis discussed	Total number of the thesis
1	Networks and the Internet	33 (51.56%)
2	Library and Information sciences Administration	20 (31.25%)
3	Information seeking behavior	11 (17.18%)
Total 64		
No	Topics category for postgraduates thesis proposal	Total number of the thesis proposal
1	Networks and the Internet	25 (54.34%)
2	Library and information science theories	20 (43.47%)
3	EBLIP	1(2.1%)
Total 46		

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3 Table 2. illustrates that the favorite topic for the postgraduates is the networks
4 and the Internet, where it has the highest percentages within the thesis that were
5 discussed (51.56%). Furthermore, it has highest percentages among the topics for
6 postgraduates' proposal (54.34%). It may be that the networks and the Internet has
7 the highest percentage either for the postgraduates' thesis or postgraduates'
8 proposal because they are some core courses related to networks and Internet at
9 the degree plans for IS Department such as library networks and the Internet,
10 database, information technology. Dixit & Singh (2012) think, in view of the
11 widespread applications of computers in diverse areas, Computer Networks,
12 Internet and Database Technologies have been introduced as papers in a variety of
13 streams of undergraduate education in all the universities of the UK. As a result,
14 the students find much literature review surrounding it.

15 In addition, maybe the networks and the Internet is the hottest topics because
16 it never gets old, and students need to improve, update and upgrade their skills at
17 networks and internet all the time. Seadle Chu, Stöckel & Crumpton (2016)
18 believe that students with strong computing skills get jobs more quickly and often
19 with better pay, than those with traditional library skills. On the other hand, the
20 information seeking behavior had (17.18%) the lowest percentage among the topic
21 of the postgraduates' thesis. Again this is because of the degree plan for IS
22 Department does not have many courses related to information seeking behavior.
23 In addition, may be it is the influence of the faculty member's research interest. It
24 is known when the postgraduates come to faculty members and ask them about a
25 topic for research, the faculty advises the students on something according to their
26 interests. Chambliss & Takacs (2014) found that faculty members play an
27 important role in determining students' initial choices of major, frequently via an
28 introductory course in the discipline as well as positive or negative experiences
29 with individual faculty members. Chamblis & Takacs (2014) note that faculty can

1 serve as gatekeepers for their discipline, by either encouraging or creating barriers
 2 for students who are interested in majoring in that field. The researcher thinks,
 3 information seeking behavior is very important, because it has skills and strategy.
 4 Information specialist need to know about it especially if they are decision makers.
 5 This is in agreement with Myers, Cranmer, Goldman, Sollitto, Gillen & Ball
 6 (2018) as they believe that information seeking is a fundamental practice that
 7 enables employees to accomplish their tasks, inquire about workplace rules and
 8 standards, and become assimilated into the organization.

10 The study has also found that with respect to the topic category for
 11 postgraduate's thesis proposal, EBLIP had the lowest percentage (2.1%) among
 12 the topics proposed by the postgraduates. It is possible that the reasons for EBLIP
 13 to be the lowest topic proposed by postgraduates, as we mentioned previously, is
 14 the fact that the faculty members did not teach courses related to EBLIP. Perhaps
 15 the other reasons for the ignorance from the postgraduates is that, EBLIP needs
 16 time to use; or as Booth (2011) found in his study about the barriers to use EBLIP
 17 lack of organizational support. May be the organization of the postgraduates do
 18 not support or care about evidence. Moreover, the use of EBLIP needs training and
 19 skills as suggested by Booth (2011).

21 *The barriers to use the EBLIP at the Department of IS or by the postgraduates'*
 22 *researchers*

24 With respect to this question, the interview with the sample clarified that the
 25 major barrier to use EBLIP is the ignorance of the department or it is not part of
 26 department culture. As Glasgow, Green, Taylor, Kurt & Stange, (2012) said, the
 27 organizational culture and leadership is one of the broader contextual factors to
 28 prevent using EBLIP. Where the faculty members at the IS have a culture with
 29 teaching methodology course which depends on using what they learnt and they
 30 stick to it. Actually, most of the methodology applied on the 64 theses, as is
 31 already discussed, where descriptive methodology uses surveys, interviews and in
 32 some cases content analysis. There is a need to introduce new methods and
 33 techniques for undergraduates and postgraduate's studies such as EBLIP. This is in
 34 agreement with Hanan Abu, Nabil & Tareq (2017), Zhang (2007), Zhang, (2010)
 35 & Salant & Paz, (2011) who believe that in recent years there is a need to change
 36 the educational system to fit and be relevant to the students and society of the 21st
 37 century and it has become a central issue for educators and policy makers alike.

38 The other barrier might be, as Claudinoa, de Pietro Simoes & da Silvac (2018)
 39 think is the lack of EBLIP training and difficulty to understand.

The Study Recommendations

In the light of the results of this study, the researcher recommended the following

1. The postgraduates in PhD course must have a course about research methodology.
2. EBLIP must be introduced in the methodology course at IS Department.

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