

Strategic university practices in student information literacy development*

Prácticas universitarias estratégicas en el desarrollo de la alfabetización informacional del alumno

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ABSTRACT

This study aimed to examine the role of university practice in student information literacy development. The study employed qualitative research design and involved 31 lecturers, librarians and students in a public research university. Data was collected using semi-structured interviews and analyzed using qualitative data analysis approach. The study found that student information literacy development is a discursive practice of information searching, organizing, analyzing, and synthesizing embedded in learning orientation that focuses on building, validating and disseminating knowledge and its mediating artefacts. The practice is influenced by multiple practices of communities within the institutions, namely the lecturers, librarians, students, and management. The study implicated student information literacy development could be supported by strategic partnerships between lecturers and librarians at the department level with lecturers holding an extra responsibility to stage the practice in the context of knowledge discipline so that students would develop, validate and disseminate knowledge and its mediating artefacts.

Keywords: information literacy, university practices, higher learning, Malaysia

RESUMEN

Este estudio tuvo como objetivo examinar el papel de la práctica universitaria en el desarrollo de la alfabetización informacional de los estudiantes. El estudio empleó un diseño de investigación cualitativa e involucró a 31 profesores, bibliotecarios y estudiantes en una universidad pública de investigación. Los datos se recopilieron mediante entrevistas semiestructuradas y se analizaron mediante el enfoque de análisis de datos cualitativos. El estudio encontró que el desarrollo de la alfabetización informacional de los estudiantes es una práctica discursiva de búsqueda, organización, análisis y síntesis de información incrustada en la orientación del aprendizaje que se enfoca en construir, validar y diseminar conocimiento y sus artefactos mediadores. La práctica está influenciada por múltiples prácticas de comunidades dentro de las instituciones, a saber, los profesores, bibliotecarios, estudiantes y directivos. El estudio implicaba que el desarrollo de la alfabetización informacional de los estudiantes podría estar respaldado por alianzas estratégicas entre profesores y bibliotecarios a nivel de departamento con los profesores que tienen la responsabilidad adicional de organizar la práctica en el contexto de la disciplina del conocimiento para que los estudiantes desarrollen, validen y difundan el conocimiento y sus artefactos mediadores.

Palabras clave: alfabetización informacional, prácticas universitarias, educación superior, Malasia

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INTRODUCTION

Information literacy is defined as a set of skills and abilities needed to undertake information related tasks which include information access, interpretation, analysis, management, creation, communication, storage and sharing (The Library and Information Association, 2018). The application of such skills and abilities are necessary to assist the transformation of students' role from information receivers to knowledge constructors, indicated by the shift of higher learning approach toward student-centered learning. Similarly, information literacy standards for higher learning such as those developed by the Australian and New Zealand Institute for Information Literacy (Bundy, 2004), the Association of College and Research Libraries (2000), and the Society of College National and University Libraries (1999) stated that information literacy is a set of abilities that enables students to identify specific needs or goals for engaging with information and its sources; search, evaluate, analyse and synthesize information; use the information to accomplish those goals; and communicate and validate the goals and the process that lead to their accomplishment. Moreover, The Library and Information Association (2018) added that information literacy includes the ability to apply those skills confidently and ethically.

In the context of Malaysian higher education, student information literacy programs have been introduced to Malaysian public universities as a strategy to transform students into knowledge workers (Chan, 2003; Edzan & Mohd Saad, 2005; Mohd Saad & Awang Ngah, 2002) who are characterized by their ability to acquire, apply, synthesize and create knowledge. Later, the introduction of Malaysian Qualification Framework (Malaysian Qualifications Agency, 2007) had strengthened student information literacy development in higher education when the framework identified information problem solving skills as part of student learning outcomes in higher learning. Recently, the development of The Education Transformation Plan 2015-2025 for Higher Education (Ministry of Education Malaysia, 2015) has reinforced student information literacy development in higher education. The education plan required students to demonstrate information literacy in order to facilitate the development of university graduates who have inquisitive and innovative minds and able to apply and generate knowledge to solve problems. Both the qualification framework and education plan imply that student information literacy development is no longer confined within the library wall and slowly integrated into classroom learning.

To support student information literacy development in higher learning, current studies in information literacy have examined academics' perception of information literacy (e.g., Stebbing et. al, 2019), the use of technology such as flipped classroom approach to minimize plagiarism among students (e.g., Hare & Choi, 2019), innovative teaching and learning techniques to develop students' information literacy (e.g., Appleton, Grandal Montero & Jones, 2017; Whitver & Lo, 2017; Jarosz & Kutay, 2017) and authentic assessment methods to evaluate students' online information and academic skills (Tolland, Mogg & Bennett, 2019; Eastman et. al, 2018; Gammons & Inge, 2017). While existing studies suggested that student information literacy development are needed to be examined and developed in the context of communities of practice and culture of learning institutions, (e.g., Lokse et. al, 2017; Urena, 2003; Iannuzzi 1998;), there have been few empirical studies investigating how institutional practices influence student information literacy development.

Particularly in the context of Malaysian higher learning, information literacy development studies have been investigating approaches toward information literacy development (e.g., Karim et. al, 2010; Nor Fariza & Yaacob, 2009), and students' information literacy proficiency (e.g., Karim et. al., 2014; Judi, 2011), personal learning orientations and goals (e.g., Karim et al., 2015) and personal skills (e.g., Karim et. al., 2018) in information literacy development. However, there is still a lack of research identifying the interplay of university practices in information literacy development in the context of Malaysian higher learning. Therefore, this study aims to examine the role of university practice in student information literacy development as experienced and perceived by university lecturers, librarians and students in one research university in Malaysia. Understanding how institutional practice interplays in student information literacy development would provide a foundation for developing effective strategies to support student information literacy development in higher learning particularly in Malaysia and other Asian countries.

LITERATURE REVIEW

Competing perspectives underpinning information literacy studies further provide a deeper understanding of how student information literacy development would be designed and implemented in higher learning. For example, existing information literacy standards were criticized because most of the standards viewed information literacy learning outcomes in higher learning as sequential information-related thinking, skills and behaviours (Kapitzke, 2003; Marcum, 2002), indicating the influence of cognitive information processing perspective which is prevalent in information science studies. These abilities-based definitions of information literacy standards focused on information processing skills, particularly information retrieval and consumption skills, while overlooking the process of learning which involves complex and recursive process of transformation of information into knowledge or understanding (Marcum, 2002; Ward, 2006; Williams, 2001). Kapitzke (2003) added that such perspective undermined student information literacy development into a set of processes, concepts, behaviours, frameworks, attitudes, and skills that is located "inside [an] individual student's head" (p. 45), and thus advocating a positivist view of understanding information literacy. As a result, student information literacy development would be seen as a value-free 'operational' process of information consumption which ignores the "sociocultural, historical, and ideological processes of knowledge construction and justification" (p. 46). This might not be the reality as Chan (2003) and Badger and Roberts (2005) found that teachers' expectations, teaching approaches, and social roles might impact on the way students apply information literacy in their learning. In this light, there might a truth to a claim made by Bruce (1997) that existing standards are "views of experts" (p. 40) which might not necessarily reflect the experience and perception of participants involved in student information literacy development; i.e. students, lecturers and librarians.

Williams (2001) and Harris (2008a) further stated that the literature also ignores issues of uncertainty and risk-taking in student information consumption, production, and dissemination in the context of existing power and values within various socio-cultural dimensions. Specifically, Harris (2008a) highlighted the role of values or culture in student information literacy development by asserting that students develop information literacy as they engage in the practice of communities in which they are members. Using a critical perspective, Harris (2008b) further defined information literacy as a “discursive practice in information use” (Harris, 2008b, p. 431), an idea which is also developed by, among others, Talja and McKenzie (2007) who posited that “information needs, seeking, and use as part of or as embedded in cultural, social, or organizational practice” (p. 101).

Correspondingly, Iannuzzi (1998) introduced the role of institutional culture or ‘campus culture’ in student information literacy development in higher learning by categorizing campus culture into subcultures of library, faculty, and administration that would serve as indicators or ‘hot spots’ for librarians to initiate information literacy programs within their institutions. Assuming that librarians are ready to undertake the leadership role in higher education, Iannuzzi (1998) suggested that librarians clarify challenges of student information literacy development in their university, identify campus partners, establish a new approach to collaboration effort, develop information skills education models, and identify multiple strategies for influencing campus culture to initiate or reinforce student information literacy development programs within their institution of learning. Such efforts could be based on ‘hot spots’ or starting points for collaborative efforts identified within the university library, faculty and administration. Course syllabuses, assignments and assessments could be starting points for librarian-faculty collaborations. Such collaboration would be only possible if strategic and collective efforts are implemented at an institutional level (Bundy, 2004; Dugan & Herson, 2002; Bruce 2001; Wright & McGurk, 2000). Likewise, Urena (2003) argued that institutional strategies are among factors that must be integrated in the development of student information skills programs. Further, there have been few empirical evidences supporting the role of institutional practice in information literacy development.

METHODOLOGY

This study employed a qualitative research approach characterized by real and information rich cases, and flexible and emergent in the nature (Bogdan & Biklen, 2007; Merriam, 2009). This study was conducted in a Malaysian public university that offered student information literacy programs and allowed an entry for data collection process. Working closely with a few librarians in the university’s academic library, the study identified five student information skills programs that involved students and lecturers from undergraduate and postgraduate programs in pure and social science disciplines.

The study conducted four individual and one paired semi-structured interviews with the four librarians; five individual semi-structured interviews with the five teachers; and eleven individual, four paired and one trio semi-structured interviews with 22 students. The study employed semi-structured interviews because the interviews could help the study to identify, examine, acknowledge and incorporate aspects of students’ application of information skills that were unique to the participants’ experiences and contexts. The interviews also enabled the study to explore aspects of the students’ application of information skills that were unrevealed during the observation and examination of the programs; besides interviewees could also raise other relevant materials during the sessions. In this respect, the semi-structured interviews provided “rigor, breadth, complexity, richness and depth” (Denzin & Lincoln, 2000: p. 5) to the construction of students’ application of information skills as experienced and perceived personally by the participants.

Data in the study was analyzed using Merriam’s (2009) steps of analyzing qualitative data that suggest using the study’s research purpose to guide the data analysis process. Using the steps, the study developed bucket, open and analytical coding that helps the study to construct a meaningful “classification system” (Merriam, 2009, p. 180) of personal skills that was found in the study to empower students’ information search and use. The classification system indicated patterns and regularities of major themes that appeared frequently across sources and cases. The study also employed Nvivo computer program for easy storage and retrieval of the data and the developed themes.

FINDINGS

The study found that student information literacy development is a discursive practice of information seeking, use, creation and dissemination embedded in higher learning orientation promoted by the learning institutions. The study also found that the discursive practice is further influenced by the practice of members of the learning institutions namely the lecturers, librarians, students, management as they interact with others during their participation or non-participation in the higher learning orientation promoted by their learning institutions.

Higher learning orientation

The university was identified by the government as one of research universities in the country. This recognition placed a responsibility on the university to increase its research and consultation activities and establish lifelong education programs that support the development of national human capital for a knowledge economy. In this sense, the university’s status as one of research universities in the country provided a direction and working framework for different communities of practice within the university to participate in the new university learning orientation that focuses on transforming the university graduates into creators of knowledge and innovation. As a result, the university learning orientation had been shifted slowly toward knowledge and innovation creation and

dissemination process which change the way students search, evaluate, analyze and use information. While lecturers and students were silent about the research university status, the study found that librarians were the opposite. The librarians pushed themselves to go beyond their comfort zone. They went to different departments and residence colleges within the university in order to promote student information literacy programs to lecturers, college principals and students. They also liaised with heads of departments and college principals to initiate and later conduct student information literacy programs at individual departments and residential colleges. Underpinning these efforts was the librarians' belief that the programs would help students to acquire skills related to information searching and organization necessary for students to create knowledge and innovation. The librarians also offered programs would help students to use word processing and presentation computer programs to better articulate and communicate the developed knowledge via the production of multiple form of mediating artefacts such as thesis, conference or journal articles, poster and electronic visual presentation.

The study also showed that the shift of the university learning orientation was motivated by the national qualification framework for higher learning introduced by higher education ministry. The framework required universities in the countries to employ outcome-based learning during the design and implementation classroom teaching and learning across their academic programs. Based on the national framework, the university developed its own working documents that featured student-centered learning in the design, implementation and assessment of classroom learning. While librarians associated student information literacy development with their research university status, lecturers and students associated student information literacy development with student-outcome based learning introduced by the national education framework. Benchmarking her undergraduate students' performance against the university learning outcomes, a lecturer (Wani) found that the students lacked information problem-solving skills; demonstrated by their inability to independently search, use, and transform information from multiple sources into knowledge and its mediating artefacts. Accordingly, she spent extra time and effort to engage the students in information literacy programs in the university library that would help them to acquire and apply information searching skills within their classroom learning. Similarly, another teacher (Onn) benchmarked his classroom learning with the attainment of the university learning outcomes related to communication skills. Onn employed an interactive classroom approach which required students to independently search and use information from multiple sources to construct personal understanding prior to the classroom learning and later sharing or reflecting the understanding during classroom learning.

Likewise, a final year undergraduate student (Razak) was of the opinion that the outcome-based learning approach employed by the university had provided explicit reasons for students to search, read, analyze and synthesize information from multiples sources independently from their classroom teachers and learning. Without the ability to search, evaluate and use information, Razak believed that students would not be able to complete their classroom assignments and answer their final examination questions. However, not all students are ready to participate in student-centered learning approach. To help such students, Onn persisted in employing various learning strategies such as enrolling the students in information literacy programs to acquire information searching skills, questioning the students during lectures and tutorial classes, assigning group and individual assignments to the students, conducting classroom discussion and presentation, and providing student consultation outside classroom learning. Onn strongly viewed that classroom interaction is an important element in classroom learning because under the outcome-based learning approach both he and the students would be assessed by the university in terms of their engagement in interactive and participative teaching and learning activities.

Lecturers' Practice

As student information literacy development is a discursive practice of searching, interacting, organizing, analyzing, synthesizing of information in building, reflecting and disseminating knowledge and its mediating artefacts, it is not surprising that the discursive practice is influenced by the lecturers' practice. Most lecturers and librarians respectively thought that centralized student information skills programs that were "coordinated" (e.g., Onn) or "synchronized" (e.g., Lea) at the department level would expose knowledge and skills related to information search and retrieval to a larger number of students to. According to a librarian, Lea such practice would enable the librarians to tailor information literacy programs to the departments' needs, requirements, schedules or activities. Similarly, another librarian (Azi) added that the practice would ensure a continuity of students' access to the courses, as the programs would no longer depend on specific teachers or courses. However, a few lecturers (Nora, Onn and Wani) acknowledged that not all lecturers share this practice. For example, Nora observed that some lecturers in her department assumed that university students are adult learners who should acquire information search and retrieval skills at their own efforts. Hence, these lecturers did not enroll students in any information literacy programs, and were also unwilling to share useful tips with their students on how they could better search and use information. In this regard, a final year fresh postgraduate student (Wina) was disappointed that her department did not coordinate any information literacy programs at the department level at the beginning of her study. Wina confessed that she and her classmates, just by chance, enrolled in the programs in her final year when a lecturer from their elective course integrated the programs in their classroom learning.

Librarians' Practice

The study demonstrated that the librarians' practice supports the discursive practice of searching, interacting, organizing, analyzing, synthesizing of information embedded in the university learning orientation. Following the university library mission, its operations had been geared toward the transformation of university students into lifelong learners, and knowledge and innovate creators. To fulfill the mission, librarians considered that classroom

teachers as the missing link between various information sources made available by the library and the students. Accordingly, the librarians decided that the best approach to expose the students to the information sources was by integrating student information literacy programs within classroom learning. To this end, the university librarians not only maintained good relationships with existing lecturers who were continuously enrolling their students in the programs; they also developed an outreach programs to promote the programs to heads of department and principals of college residences within the university. Due to the superiority status of university lecturers over librarians perceived within the university, the librarians decided that students would likely join information literacy programs whenever the programs had become an integrated feature of classroom learning.

Students' Practice

Students' practice also seems to influence the discursive practice of students' information search and use. A librarian (Lea) noticed that students in certain departments were more proactive in learning about searching or using information source made available by the university library. Lea said that the students formed their own groups and came to the library to request information skills programs for their groups. The study also found that young undergraduate students (Amy, Kay and Kam) were more inclined to copy and claim other persons' writing in the internet as their own, while mature postgraduate students (Naim and Nori) were found to be more committed and passionate in searching, sharing, evaluating, analyzing, synthesizing and using information to develop knowledge in the topics of learning. Upon further investigation, the young undergraduate students' plagiarism practice was influenced by lecturers' inability to detect or/and penalized such practice. Similarly, the mature postgraduate students' practice seemed to be influenced by lecturers' practice that focused on communicating, reflecting or negotiating students' personal understanding during classroom learning.

Management's Practice

The study also suggested that the university management's practice to some extent could influence the discursive practice of searching, interacting, organizing, analyzing, synthesizing of information in learning by hindering collaborative efforts between lecturers and librarians. For example, due to unavailability of specific budget, a lecturer (Sam) only could provide an appreciation letter to the university librarians who conducted his students' information literacy programs. Although such letter was insufficient to repay the librarians' time and effort in training his students which usually exceeded 60 in total number, Sam hoped that the letter would become handy during the librarians' annual assessment, and therefore increased the librarians' motivation to continuously conduct the programs for his classes in future. Another lecturer (Onn) discovered that the university financial system had restrained him from providing monetary incentive to librarians involved in his classes' information literacy programs. Onn said that on top of their daily tasks in the library, the librarians also spend time outside their working hours, usually during the night or over the weekend, to grade Onn students' information literacy assignments. Despite the librarians' extra efforts, the bursary department in the university told Onn that it was impossible for the university to provide a financial remuneration for the librarians because the student information literacy programs were run by the librarians within the university premises and working office hours.

DISCUSSION

Consistent to Harris (2008b), and Talja and McKenzie (2007), study found that student information literacy development in higher learning is a discursive practice of information seeking, use, creation and dissemination embedded in higher learning orientation that focuses on the construction, communication and validation of knowledge and its mediating artefacts. As highlighted by Harris (2008), the study asserted that students develop information literacy as they engage in the practice of communities in which they are members, such as communities of classroom learning, information literacy programs, knowledge discipline, peers. Moreover, similar to Iannuzzi (1998), the study found that student information literacy development must be supported by strategic collaboration efforts between lecturers, librarians, students, management as they participate in learning orientation that focuses on the construction, communication and validation of knowledge and its mediating artefacts. Accordingly, institutional top-down strategies at department level are required to develop students' information literacy as echoed by Iannuzzi (1998), Badger & Roberts (2005), and Grassian and Kaplowitz, (2001),

The study also indicated that student information literacy development could be traced to institutional learning missions, goals or vision documents, and strategic plans related to the national policy and accreditation as stated by Iannuzzi (1998; 1999) and Wright and McGurk (2000). As indicated by Julien and Boon (2002), a dedicated budget for purchasing necessary equipment and technology for student information literacy programs, and monetary incentives for librarians could reduce a 'burn out' phenomenon among librarians in academic libraries, particularly at the beginning of every university semester when the number of students enrolling in information skills programs are at their peak (Julien & Boon, 2002). The study showed that working with elements of university practice would reduce the failure of student information literacy development, which is due to a lack of understanding about student information literacy development at department level, and support from university administration as highlighted by Julien and Boon (2002), and Wright and McGurk (2000). As highlighted by previous studies (e.g., Badger & Roberts, 2005; Bruce, 2001; Jackson, 2007; Saunders, 2007), the study suggested that strategic partnership at the department level is the key to student information literacy development in higher learning.

CONCLUSION

The study aimed to examine the role of university culture in student information literacy development. The study revealed that student information literacy in higher learning is a discursive practice of searching, interacting, organizing, analyzing, synthesizing of information embedded in learning orientation that focuses on building, validating and disseminating knowledge and its mediating artefacts. The study also found that the discursive practice could be influenced by the practice of members of the learning institutions namely the lecturers, librarians, students, management as they participate in the institutional learning orientation. The study implicated that due to the superiority status of university lecturers over librarians perceived within higher learning institutions, coordinated information literacy programs at the department level is the key to successful student information literacy development. Additionally, the study implicated that in any collaborative efforts of student information literacy development, lecturers have an extra responsibility to engage students in the discursive practice of information searching, organizing, analyzing, and synthesizing in the context of discipline of knowledge where the knowledge and its mediating artefacts would be constructed and reflected. Future studies should be undertaken to examine the discursive practice of plagiarism in higher learning institutions and the role of institutional practice in preventing such practice.

BIBLIOGRAPHIC REFERENCES

- Appleton, L., Grandal Montero, G., & Jones, A. (2017). Creative Approaches to Information Literacy for Creative Arts Students. *Communications in Information Literacy*, 11 (1), 147-167. doi: <https://doi.org/10.15760/comminfolit.2017.11.1.39>
- Association of College & Research Libraries. (2000). Information literacy standards for higher education. Retrieved from <http://www.ala.org/ala/acrl/acrlstandards/standards.pdf>
- Badger, J., & Roberts, S. (2005). Exporting e-literacy education. *Journal of eLiteracy*, 2(1), 27-41. Retrieved from http://www.jelit.org/54/01/JeLit_Paper_6.pdf
- Bawden, D. 2001. Information and digital literacies: A review of concepts. *Journal of Documentation*, 52(2), 218-259. doi: <http://dx.doi.org/10.1108/EUM000000007083>. Retrieved on: 17 October 2016.
- Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative research for education: An introduction to theories and methods*. Boston, MA: Pearson Education, Inc.
- Bruce, C. (1997). *The seven faces of information literacy*. Adelaide, SA: Auslib Press.
- Bruce, C. (2001). Faculty–librarian partnerships in Australian higher education: critical dimensions. *Reference Services Review*, 29(2), 106-115. doi: <http://dx.doi.org/10.1108/00907320110394146>
- Bundy, A (Ed.). (2004). *Australian and New Zealand information literacy framework: Principles, standards and practice* (2nd ed.). Adelaide, SA: Australian and New Zealand Institute for Information Literacy.
- Chan, S. N. (2003, August). Making information literacy a compulsory subject for undergraduates: The experience of the University of Malaya. Paper presented at The 69th International Federation of Library Associations.
- Dugan, R. E., & Hernon, P. (2002). Outcomes assessment: Not synonymous with inputs and outputs. *The Journal of Academic Librarianship*, 28(6), 376-380. doi: [http://dx.doi.org/10.1016/S0099-1333\(02\)00339-7](http://dx.doi.org/10.1016/S0099-1333(02)00339-7)
- Eastman, T., Lundstrom, K., Strand, K., Davis, E., Martin, P. N., Krebs, A., & Hedrich, A. 2018. Closing the Loop: Engaging in a Sustainable and Continuous Cycle of Authentic Assessment to Improve Library Instruction. *Communications in Information Literacy*, 12 (2), 64-85. Doi: <https://doi.org/10.15760/comminfolit.2018.12.2.2>
- Edzan, N. N., & Mohd Saad, M.S. (2005). NILA: A national information literacy agenda for Malaysia. *Malaysian Journal of Library & Information Science*, 10(1), 91-103.
- Gammons, R. W., & Inge, L. T. (2017). Using the ACRL Framework to Develop a Student-Centered Model for Program-Level Assessment. *Communications in Information Literacy*, 11(1), 168-184. <https://doi.org/10.15760/comminfolit.2017.11.1.40>
- Grassian, E. S., & Kaplowitz, J. R. (2001). *Information literacy instruction: Theory and practice*. New York, NY: Neal-Schuman Publishers.
- Hare, J., Choi, K. 2019. Attribution and plagiarism in the creative arts. *Journal of Information Literacy*, 13 (1), 62-75. doi: <https://doi.org/10.11645/13.1.2640>.
- Harris, B. R. (2008a). Values: the invisible ‘ante’ in information literacy learning. *Reference Services Review*, 36(4), 424-437. doi: <http://dx.doi.org/10.1108/00907320810920388>
- Harris, B. R. (2008b). Communities as necessity in information literacy development: Challenging the standards. *The Journal of Academic Librarianship*, 34(3), 248-255. doi: <http://dx.doi.org/10.1016/j.acalib.2008.03.008>
- Iannuzzi, P. (1998). Faculty development and information literacy: Establishing campus partnerships. *Reference Services Review*, 26(3-4), 97-102, 116. doi: <http://dx.doi.org/10.1108/00907329810307786>
- Iannuzzi, P. (1999). We are teaching, but are they learning: Accountability, productivity, and assessment. *The Journal of Academic Librarianship*, 25(4), 304-305. doi: [http://dx.doi.org/10.1016/S0099-1333\(99\)80031-7](http://dx.doi.org/10.1016/S0099-1333(99)80031-7)
- Jackson, P. A. (2007). Integrating information literacy into blackboard: Building campus partnerships for successful student

- learning. *The Journal of Academic Librarianship*, 33(4), 454-461. doi: <http://dx.doi.org/10.1016/j.acalib.2007.03.010>
- Jarosz, E. E., & Kutay, S. (2017). Guided Resource Inquiries: Integrating Archives into Course Learning and Information Literacy Objectives. *Communications in Information Literacy*, 11(1), 204-220. <https://doi.org/10.15760/comminfolit.2017.11.1.42>
- Judi, H. M., Amin, H.M, Zin, N.A.M. & Latih, R. (2011). Rural Students` Skills and Attitudes Towards Information and Communication Technology. *Journal of Social Sciences*. 7(4):619-626
- Julien, H., & Boon, S. (2002). From the front line: information literacy instruction in Canadian academic libraries Reference Services Review, 30(2), 143-149. Emerald Database. doi: <http://dx.doi.org/10.1108/00907320210428697>
- Karim, A.A., Shah, P.M., Din, R. (2010). Teachers` views and teaching approaches on the learning of Information Skills in Malaysian University. *International Journal of Learner Diversity*, 2 (1):15-44
- Karim, A. A., Shah, P.M., Din, R., Ahmad, M. & Lubis, M.A. (2014). Developing Information Skills Test for Malaysian Youth Students Using Rasch Analysis.
- Karim, A.A., Shah, M.S., Khalis, F. Ahmad, M. & Din, R. (2015). The role of personal learning orientations and goals in students` application of information skills in Malaysia. *Creative Education*, 2015 (6): 2002-2012. doi: <http://dx.doi.org/10.4236/ce.2015.618205>
- Karim, A.A., Khalid, F., Nasir, M.K.M., Maat, S.M., Daud, M.Y. & Surat, S. Enablers to information search and use in higher learning. (2018). *Creative Education* 2018 (9): 2089-2100. doi: 10.4236/ce.2018.914151
- Kapitzke, C. (2003). Information literacy: A positivist epistemology and a politics of outformation. *Educational Theory*, 53(1), 37-53. doi: <http://dx.doi.org/10.1111/j.1741-5446.2003.00037.x>
- Lokse, M., Lag, T., Solberg, M., Andreassen, H. N. & Stenersen, M. (2017). *Teaching information literacy in higher education: Effective teaching and active learning*. Chandos Publishing.
- Malaysian Qualifications Agency. (2007). *Malaysian Qualifications Framework: Point of reference and joint understanding of higher education qualifications in Malaysia*. Retrieved from <http://www.mqa.gov.my/eng/mqf.cfm>
- Marcum, J. W. (2002). Rethinking information literacy. *Library Quarterly* 72(1), 27. Expanded Academic ASAP Plus Database. doi: <http://dx.doi.org/10.1086/603335>
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.
- Ministry of Education Malaysia. (2015). *Executive Summary: Malaysia Education Blueprint 2015-2025 (Higher Education)*. Putrajaya: Ministry of Education Malaysia.
- Mohd Saad, M.S. & Awang Ngah, Z. (2002, August). Information literacy programmes in Malaysian public universities: An observation. Paper presented at the 68th International Federation of Library Associations and Institution Annual Council and General Conference Glasgow. Retrieved from <http://www.ifla.org/IV/ifla68/papers/142-098e.pdf>
- Nor Fariza, M.N., Ya`acob, A. (2009). Facilitating lifelong learning through development of information literacy skills: A study of integrated project work. *European Journal of Social Sciences*. 9(3):457-464
- Saunders, L. (2007). Regional accreditation organizations` treatment of information literacy: Definitions, collaboration, and assessment. *The Journal of Academic Librarianship*, 33(3), 317-326. doi: <http://dx.doi.org/10.1016/j.acalib.2007.01.009>
- Society of College National & University Libraries. (1999). *Information skills in higher education: A SCOUNL position paper*. Retrieved from http://www.sconul.ac.uk/groups/information_literacy/papers/Seven_pillars2.pdf
- Stebbing, D., Shelley, J., Warnes, M. & McMaster, C. 2019. What academics really think about information literacy. *Journal of Information Literacy*, 13 (1), 21-44. doi: <https://doi.org/10.11645/13.1.2338>
- Talja, S., & McKenzie, P. J. (2007). Editor's introduction: Special issue on discursive approaches to information seeking in context. *Library Quarterly*, 77(2), 97-108. doi: <http://dx.doi.org/10.1086/517839>
- The Library and Information Association. (2018). *CILIP definition of information literacy 2018*. Information Literacy Group. Accessed from <https://infolit.org.uk/ILdefinitionCILIP2018.pdf> at 15th June 2019.
- Tolland, A & Mogg, R., Bennett, A. 2019. Using learning diaries to evaluate and improve online information literacy and academic skills provision. *Journal of Information Literacy*, 13 (1), 76-92. doi: <https://doi.org/10.11645/13.1.2519>.
- Urena, C. P. (2003, August). The international IL certificate: a global professional challenge? Paper presented at the World Library and Information Congress: 69th IFLA General Conference and Council, Berlin.
- Ward, D. (2006). Revisioning information literacy for lifelong meaning. *The Journal of Academic Librarianship*, 32(4), 396-402. doi: <http://dx.doi.org/10.1016/j.acalib.2006.03.006>
- Whitver, S. M., & Lo, L. S. (2017). Asking Questions in the Classroom: An Exploration of Tools and Techniques Used in the Library Instruction Classroom. *Communications in Information Literacy*, 11 (1), 185-203. <https://doi.org/10.15760/comminfolit.2017.11.1.41>
- Williams, D. (2001, November). *Information literacy and learning on-line*. SCROLLA Networked Learning Symposium . Retrieved from www.education.ed.ac.uk/dice/scrolla/resources/s1/williams_paper.pdf
- Wright, L., & McGurk, C. (2000). Integrating information literacy: University of Wollongong experience. In C. Bruce & P. Candy (Eds.), *Information literacy around the world: Advances in programs and research* (pp. 33-98). Wagga Wagga, New South Wales: Centre for Information Studies, Charles Sturt University.