

USING BEETHAM AND SHARPE'S (2011) MODEL IN ANALYSING THE DIGITAL LITERACY PRACTICES OF ESL STUDENTS IN AN INSTITUTION OF HIGHER LEARNING

Malini Ganapathy, Vighnarajah, and Sarjit Kaur

Universiti Sains Malaysia and Wawasan Open University

Abstract

Rapid technological advancements, especially in the higher education landscape, have contributed towards the popularity of digital literacy in educational contexts. In general, digital literacy encompasses the knowledge, skills and awareness of searching, evaluating and disseminating digital information for purposes of improving and facilitating one's work. Digital skills are considered a vital requirement for graduates to possess as it determines their effective participation in employment and thus, promotes their marketable capabilities. This paper examines the digital literacy practices of ESL (English as a Second Language) students in a Malaysian higher education institution. A questionnaire was used to collect data and provide findings on the digital literacy practices of 150 ESL tertiary students. Findings reveal that the respondents are inclined to use technology in appropriate learning situations and display a willingness to select and use contemporary technologies to access, organise, share and communicate information for a variety of tasks. The implications of the findings suggest that it is important to ensure that students develop effective digital literacy skills utilising technologies to search, evaluate and disseminate quality information to support their academic learning goals. These measures are necessary to ensure that tertiary students are equipped with knowledge, skills, abilities and other desired workforce competencies.

KEYWORDS: DIGITAL LITERACY, WORKPLACE SKILLS, SEARCH INFORMATION, EVALUATE INFORMATION, ORGANISE INFORMATION, BEETHAM AND SHARPE'S (2011) MODEL, ESL

Introduction

Technology is driving change in the manner information is comprehended and communicated. Educators are confronted with pertinent issues such as the criteria involved in being considered 'literate' in today's digital age and the requirements involved in cultivating digital literacy for themselves as well as their students. In principle, various interpretations to digital literacies exist in relation to the discipline but the general key concepts encompass the skills of finding, using and disseminating information digitally (Hagel, 2012a). Literacy takes on a multidimensional lens when it is broadly associated with economic, social and technological evolutions. These effects are due to the change in media; to a great extent it involves the shift from traditional print-based media to the current information and communication technologies (Kress, 2009).

There is a vast array of digital resources integrated as part of our social and work related practices that can cause inability of managing the choice of materials. Digital literacy involves the technical skills which will enable the effective usage of digital gadgets and it comprises executing tasks in digital environments, such as constructing knowledge during surfing the web, deciphering user interfaces,

USING BEETHAM AND SHARPE'S (2011) MODEL IN ANALYSING THE DIGITAL LITERACY PRACTICES OF ESL STUDENTS IN AN INSTITUTION OF HIGHER LEARNING

playing digital games, searching in databases, creating and sharing content on the web, chatting in chat rooms and communicating in social networks (Hargittai, 2008).

There is a growing need for students in the higher education sector to be innovative as this is deemed necessary in today's globalised era. There are also calls for such learning needs in the Malaysian higher education sector as employers expect graduates to have well developed digital literacy abilities in handling 21st century work demands. Innovative skills are pertinent in order to drive any economy to greater heights and consequently, meet industry demands (Erstad, 2010). Besides academic qualifications, Malaysian employers expect local university graduate to acquire effective navigation and information management skills that can ensure they are able to locate information and sources by using efficient retrieval practices. It has been reported that there is scant research on tertiary students' digital literacy practices in Malaysia as majority of research in this context have focused on ESL tertiary students' language and critical thinking in reading various types of texts (Pramela Krish, Hafizah Latif & Zalina Mohd Lazim, 2012; Koo, Wong & Kemboja Ismail, 2012; Kaur, 2013).

Digital literacy advocates the ability to synthesise and make critical assessment of a diverse range of resources, which are also important skills (Folley, 2013). Students should also be aware of ethical and legal use of information and maintain the security and privacy of information when using digital resources. Digital literacy is not a stationary concept: as ICT changes, what it means to be digitally literate also needs to evolve to ensure that students develop and apply skills in appropriate new technologies for information discovery, transfer, analysis, review and communication (Carrington, 2005). In acknowledging calls for efficient information retrieval skills, this paper examines ESL tertiary students' digital literacy practices in a higher education institution in Malaysia.

Digital Literacy Practices

Digital literacy competencies (or skills) are termed as literacy skills for the twenty first century, or 21-century skills. Jones-Kavalier and Flannigan (2008) propose that digital literacy represents a person's ability to perform tasks effectively in a digital environment; digital means information represented in numeric form and primarily used by a computer, and literacy includes the ability to read and interpret media, to reproduce data and images through digital manipulation and to evaluate and apply new knowledge gained from digital environments.

Meanwhile, Lankshear and Knoble (2008, p. 5) define digital literacy as "a shorthand for the myriad of social practices and conceptions of engaging in meaning making, mediated by texts that are produced, received, distributed, exchanged, etc., via digital codification". The authors contend that scholars and researchers these days need to acknowledge 'new' literacy practices because technology changes rapidly and digital literacies evolve in various contexts. They advocate the need to study how digital literacy happens in different contexts, especially in relation to the widespread practices used in social network sites. Hence, in the tradition of these scholars and because of rapid technological changes that have taken place in the last two decades, digital literacy practices have to be seen within larger systems of literate activity and larger literacy ecologies (Buck, 2012). Ecological frameworks involving students' literacy practices often acknowledge students' literacy activities with a variety of socially constituted systems. In most cases, students engage with such technologies with clear and conscious purposes. For tertiary students, living a literate life in today's information age increasingly means that they have to learn how to navigate these spaces while managing one's identify and online data and considering complex issues of privacy and representation (Buck, 2012).

As students use technology and network sites as parts of larger systems of literate activity, it is increasingly being considered as a productive way to trace their influence on an individual's literate

USING BEETHAM AND SHARPE'S (2011) MODEL IN ANALYSING THE DIGITAL LITERACY PRACTICES OF ESL STUDENTS IN AN INSTITUTION OF HIGHER LEARNING

life. As students engage in such digital literacy practices, they will face different questions about data management and ownership, privacy and identity representation. Students who continually engage in such activities towards developing their digital literacies will also need to constantly negotiate new situations they encounter, making them learn more about societies around them as they integrate knowledge production in their meaning making activities. As such, according to Jisc and Bonner McHardy (2014), the seven elements that drive the employability of a graduate include developing digital literacies as the capabilities which fit someone for living, learning and working in a digital society. They reiterate that these seven elements of digital literacies are: media literacy, information literacy, communications and collaboration, digital scholarship, career and identity management, learning skills and Information and Communications Technology (ICT) literacy. Media literacy is the ability to critically read and creatively produce academic and professional communications in a range of media; informational literacy includes the skills to find, interpret, evaluate, manage and share information; communications and collaboration entails participation in digital networks for learning and research; digital scholarship ascertains the participation in emerging academic, professional and research practices that depend on digital systems; career and identity management relates to managing digital reputation and online identity; learning skills are the ability to study and learn effectively in technology-rich environments, formal and informal and ICT literacy skills looks at the ability to effectively adopt, adapt and use digital devices, applications and services.

Framework of Digital Literacy Practices

The shift in the new academic paradigm focuses on functional access, skills and practices necessary to become a confident, agile practitioner of a diverse set of technologies for personal, academic and professional use, which necessitates new skills and practices. This study makes use of Sharpe and Beetham's (2011) framework of digital literacies as it takes into account students' initiative to create a conducive learning environment by taking into account the needs and preferences including ICT, planning the learning journey, using technology to access opportunity, showcase achievements, and reflect on the outcomes, design original projects, design problems and questions that are meaningful, being a critical reader of messages in different media, and a critical user of different technologies, judge digital resources, environments, networks and opportunities, behave ethically in contexts where the digital is blurring boundaries, and with an awareness of digital rights and safety.

Sharpe and Beetham's model (Figure 1) indicates the motivational aspect for developing students' digital literacy and determines digital literacies as social practices. The first hierarchy of the pyramid represents access to the basic prerequisites of learning for students to engage in the process of using technology to supplement their learning and it encompasses the obtainability of relevant hardware, internet connectivity and accessing web-based tools or the university's virtual learning environment (VLE hereafter). The first level takes into account time and management factors. The next level of the framework relates to the students' ability to use technology skilfully in their learning, which includes information literacy, meta-cognitive, ICT skills (handling different types of information sources and media), being able to interact effectively with social and professional groups, etc.

USING BEETHAM AND SHARPE'S (2011) MODEL IN ANALYSING THE DIGITAL LITERACY PRACTICES OF ESL STUDENTS IN AN INSTITUTION OF HIGHER LEARNING

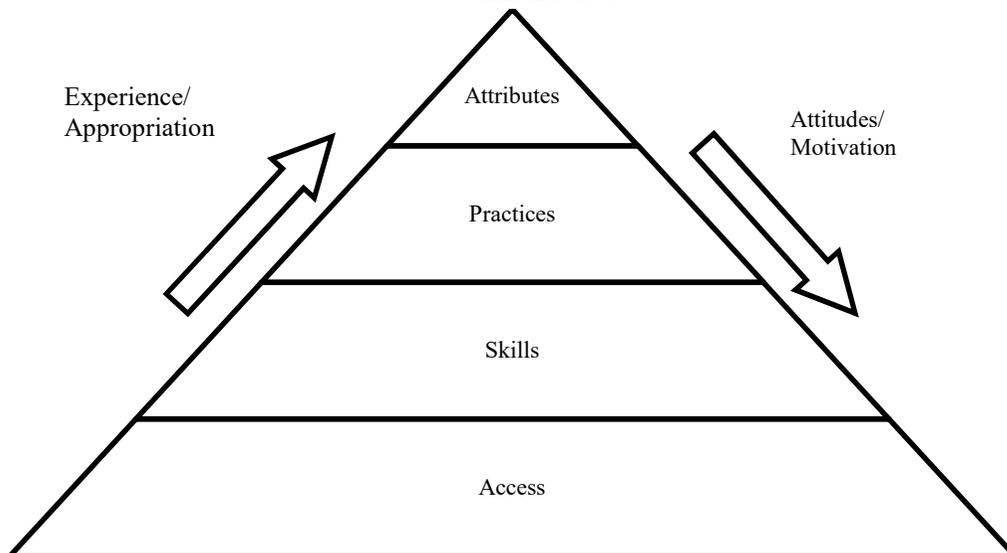


Figure 1. Beetham and Sharpe's (2011) Model of Students' Digital Literacies

At the third level, practices refer to students making informed choices on how to best utilise technology to enhance their learning process, and in this measure amalgamate the technology with other relevant technologies. At the last level, attributes explicate the student's attitude and values towards utilising technology to facilitate his/her learning process. This is the highest level of digital literacy to achieve, which includes the attributes of being engaged, connected, confident, adaptable, intentional and self-aware (Sharpe, 2014). The arrow pointing upwards depicts the role of 'access' in developing skills to achieve effective and confident digital literacy practices. The arrow pointing downwards depicts how attitude towards technology encourages improved motivation and access to technology (digital literacy).

Objectives of the Study

The purpose of this study was to explore how ESL tertiary students perceive the use of technology to improve their learning process, and ultimately how they practise digital literacy. In light of this purpose, the specific objectives of the study were to measure:

- (i) Students' perceptions of their access to technology
- (ii) Students' perceptions of their skills in utilising technology for a variety of reasons
- (iii) Students' perceptions in making informed choices when interacting with technology
- (iv) Students' perceptions of their attitudes and values in utilising technology to enhance their learning process

Methodology

A questionnaire was distributed in the second academic semester 2014/2015 among 110 second year ESL tertiary students registered for English language proficiency courses in a higher education

USING BEETHAM AND SHARPE'S (2011) MODEL IN ANALYSING THE DIGITAL LITERACY PRACTICES OF ESL STUDENTS IN AN INSTITUTION OF HIGHER LEARNING

institution in Malaysia. For reasons of anonymity, the institution (a public university situated in a northern state) will be referred to as "University A" (UA). The questionnaire consisted of 47 questions, grouped in accordance to Beetham and Sharpe's (2011) model of students' digital literacies and thus, clustered into four main areas; Students' Functional Access, Students' Skills (personal capabilities), Students' Practices (ways of thinking and acting) and Students' Attributes/Identities.

With the help of ESL teachers, the questionnaires were distributed during the students' regular classes. The aim of the research study was explained to the students before the questionnaires were administered in the four ESL classes. As a pilot study was carried out prior to the main study, it was found that students faced no difficulty in completing the questionnaires. On average, students took between 15-20 minutes to complete the questionnaires. Students were asked to sign student consent forms acknowledge that the results of the study would only be used for research purposes and that their identity would remain anonymous.

The responses in the questionnaire were based on a 5-point Likert scale ranging from 1 to 5 where 1 equals to strongly disagree, 2 equals to disagree, 3 equals to neutral, 4 equals to agree and 5 equals to strongly agree. The subjects' responses were analysed using descriptive statistics. Mean scores related to the four clusters were calculated to establish the trends of students' digital literary practices.

Findings

The sections below present the findings of the study. Firstly, the results of students' functional access to technology and network devices are reported. Then, the students' personal skills in using technology in a variety of contexts are reported, followed by their attitudes and values in utilising technology to support and enhance their learning process. Finally, the students' attributes and practices towards using technology are presented.

Table 1: Students' Functional Access

	Item	Mean
1	I have access to networked device + range of apps.	3.7
2	I have access to robust networks.	2.2
3	I have access to media devices / digital gadgets.	3.8
4	I have access to specialist hardware or software for my course.	1.4
5	I have access to technology that I need.	3.8
6	I have access to information sources and services.	2.3
7	I have access to learning content.	3.2
8	I have access to my preferred media.	4.7
9	I have access to learning opportunities.	3.8
10	I have access to learning resources.	3.7
11	I have access to peers and learning groups.	4.6
12	I have access to teachers, mentors and experts.	4.6
13	I have access to a space for learning.	4.5
14	I have the time to learn.	4.7

Generally, the trend in the mean scores of Table 1 reflects students' positive reflection in experiencing the first level of Beetham and Sharpe's (2011) model of students' digital literacies, which relates to students' Functional Access. As shown in Table 1, it was found that students have moderate access to

USING BEETHAM AND SHARPE'S (2011) MODEL IN ANALYSING THE DIGITAL LITERACY PRACTICES OF ESL STUDENTS IN AN INSTITUTION OF HIGHER LEARNING

network and digital devices with mean values of 3.7 and 3.8 respectively. Similar results were also obtained for access to technology (mean=3.8), learning opportunities (mean=3.8) and learning resources (mean=3.7). The findings of the study also indicate that students have functional/easiest access to their preferred media (mean = 4.7), peers and learning groups (mean=4.6), teachers, mentors and experts (mean = 4.6), space for learning (mean=4.5) and time to learn (mean=4.7). The most difficult access students experienced was mainly for access to specialist hardware or software (mean=1.4), robust networks (mean=2.2) and access to information sources and services (mean=2.3).

Table 2 below illustrates students' skills (or personal capabilities) in skilfully utilising technology in a variety of learning contexts. These findings clearly reflect that students find themselves to be adequately skilled in utilising technology for their academic purposes.

Table 2: Students' Skills (personal capabilities)

	Item	Mean
15	I can use search engines, online services, data, and analysis tools.	4.2
16	I can use a range of media-capture devices.	4.5
17	I can use a range of editing applications.	4.8
18	I can use communication and presentation tools.	3.9
19	I can use professional and academic (subject specific) tools.	3.7
20	I can locate and access information.	3.7
21	I can compare, evaluate and select information.	2.7
22	I can organise and manage information.	4.7
23	I can apply information to problems and questions.	4.8
24	I can analyse and synthesise information.	2.6
25	I can communicate information.	3.6
26	I can take notes.	3.8
27	I can complete and submit assignments.	4.4
28	I can solve problems.	4.3
29	I can manage my time and tasks.	2.3

Based on the results presented in Table 2, students are skilled in utilising technology for using editing applications (mean = 4.8), apply information to problems and questions (mean = 4.8), organize and manage information (mean = 4.7); use a range of media-capture devices (mean = 4.5), complete and submit assignments (mean =4.4); solve problems (mean = 4.3) and use search engines, online services and data analysis tools (mean = 4.2).

However, students also indicated their limitations in skilfully utilising technology and this was mostly true in comparing, evaluating and selecting information (mean = 2.7); analysing and synthesizing information (mean = 2.6); managing time and task (mean = 2.3) and in providing evidence, cite and reference appropriately (mean = 2.5).

Table 3 presents findings on how students make informed choices when interacting with technology and this measure reflects developing flexible strategies in technology literacy practices. High mean values were obtained for the following aspects: to study under own initiatives (mean = 4.3), choose, use and blend technologies to suit relevant needs (mean = 4.2), explore the capabilities of technology (mean = 4.1), personalise technologies and services (mean = 4.1), and to participate in learning communities and groups (mean = 4.1). The lowest mean value (3.7) was obtained only for two items: choose, use and blend media for communicating ideas, and to build knowledge collaboratively.

USING BEETHAM AND SHARPE'S (2011) MODEL IN ANALYSING THE DIGITAL LITERACY PRACTICES OF ESL STUDENTS IN AN INSTITUTION OF HIGHER LEARNING

Table 3: Students' Practices (ways of thinking and acting)

	Item	Mean
32	I choose, use and blend technologies to suit my needs.	4.2
33	I explore the capabilities of technology.	4.1
34	I personalise technologies and services.	4.1
35	I share ideas and express myself in a variety of media.	3.8
36	I choose, use and blend media for communicating ideas.	3.7
37	I repurpose, adapt and re-edit content for a variety of audiences.	3.8
38	I study under my own initiative and in the ways that suit me.	4.3
39	I participate in learning communities and groups.	4.1
40	I build knowledge collaboratively.	3.7
41	I solve complex problems using appropriate ICT tools.	3.9

Table 4 presents findings of students' attitudes and values in utilising technology to support and enhance their learning process. The highest mean value was obtained for the item that reflects students' positive attitude and value towards designing original projects, problems and questions that are meaningful to them and others (mean = 4.6). This was followed with the item that reflects students' positive attitude and value towards creating a learning environment that suits them, with awareness of their needs and preferences including ICT preferences (mean = 3.7). The lowest mean value was obtained for students' positive attitude and value in behaving ethically in contexts where the notion of digital is a vague boundary, albeit awareness of digital rights and safety (mean =2.6).

Table 4: Students' Attributes/Identities

	Item	Mean
42	I create a learning environment that suits me, with an awareness of my needs and preferences including ICT preferences.	3.7
43	I plan my own learning journey, using technology to access opportunity, showcase achievements, and reflect on the outcomes.	3.8
44	I design original projects, problems and questions that are meaningful to me and others.	4.6
45	I am a critical reader of messages in different media, and a critical user of different technologies.	2.8
46	I judge digital resources, environments, networks and opportunities for their value to me and others.	2.7
47	I behave ethically in contexts where the digital is blurring boundaries, and with an awareness of digital rights and safety.	2.6

The aforementioned discussion highlighted in general the highest and lowest mean values obtained for items in the respective constructs. Attention was drawn towards the four constructs/aspects of the

USING BEETHAM AND SHARPE'S (2011) MODEL IN ANALYSING THE DIGITAL LITERACY PRACTICES OF ESL STUDENTS IN AN INSTITUTION OF HIGHER LEARNING

Beetham and Sharpe's (2011) model of digital literacy, namely, Access, Skills, Practices and Attributes. The ensuing discussion attempts to reason the findings of the results while making meaningful extensions to relevant past studies and literature findings.

Discussion

Digital literacy is a fluid notion, and any attempts of understanding this notion, at its very best, vary across different contexts of discussion; both in academic, professional and personal practices. With the advent of rapid digital technological development especially in the educational landscape, there is bound to be varying degrees to the manner in which a student perceives and interacts with digital literacy. However, the fundamental awareness of digital literacy lies in establishing functional skills of accessing and ultimately managing digital literacy to result in a meaningful set of digital practices.

This study explored and presented findings of students' perception of utilising and interacting with digital tools as part of their everyday digital literacy practices. Based on the findings of the first aspect of the Beetham and Sharpe's (2011) model, it was evident that ESL tertiary students have ample access to digital tools, including relevant hardware and software, internet connectivity and the University's web-based virtual learning environment. This finding is consistent with other studies which state that students of higher institutions frequently utilised the Internet to research for their assignments and download lecture notes (Matthews & Schrum, 2003; Duggan et al., 2001). The findings also highlighted that ESL tertiary students faced no problem in utilising digital tools to access for consultation with their instructors, mentors, peers and experts. Again, this finding conforms to findings from previous studies conducted by Matthews and Schrum (2003) and Duggan et al. (2001) that the Internet, and examples of commonly utilised digital tools, provide a popular mode to contact and consult with the instructors.

Digital literacy is an increasingly sought after form of literacy, particularly in this Information Age. Apart from the conventional numeracy literacy, this sense of importance of access to digital literacy was succinctly highlighted in the Policy Brief of Digital Literacy in Education presented by UNESCO Institute for Information Technologies in Education (UNESCO, 2011, p.1):

"Information and communication technologies (ICTs) have penetrated all areas of contemporary life. In this context, digital literacy has become much more than the ability to handle computers – just like traditional literacy and numeracy, it comprises a set of basic skills which include the use and production of digital media, information processing and retrieval, participation in social networks for creation and sharing of knowledge, and a wide range of professional computing skills. Digital literacy improves employability because it is a gate skill, demanded by many employers when they first evaluate a job application".

Findings of the second aspect of Beetham and Sharpe's (2011) model also addressed high mean values in assessing the digital literacy practices of ESL students in utilising technology for a variety of academic tasks; for example, using search engines, online services, media-capture devices, editing applications and tools to research and submit assignments. Though anticipated, this finding further strengthens the claim that students of this generation are 'digital natives' (Prensky, 2001). He compares the label digital natives to 'digital immigrants' with the latter referring to those who were born before the digital era and are more likely to adapt to technological advancement rather than fully embracing what technology has to offer.

USING BEETHAM AND SHARPE'S (2011) MODEL IN ANALYSING THE DIGITAL LITERACY PRACTICES OF ESL STUDENTS IN AN INSTITUTION OF HIGHER LEARNING

Findings of the second aspect conform to the general perception that a number of young people are positively assertive in utilising a variety of technologies, with the Internet universally referred to as the source of information (Hague & Payton, 2010). These scholars further mention that, in fact, it is not uncommon to find young people assisting adults to operate computers and the Internet.

However, findings of the second aspect also registered low mean values, especially for the items that require students to utilise technology to: (i) search for evidence, cite and reference appropriately, and (ii) read and write academic content. Evidently, rehearsal of this digital literacy skill necessitates more experience and exposure on the part of students. Jenkins et al (2006) argue that this is more focused on media literacy, in which students face ethical challenges due to lack of experience in developing the obligatory ethical norms. They relate this problem with the Laissez Faire approach, in which students are assumed to be able to develop ethical norms to manage the diverse online social environment. Jenkins et al. (2006) also referred to the works of Fischman, Solomon, Schutte and Gardner (2005, p.17) to further illustrate how a young journalist, transiting from student's experience, learns ethical norms from an environment of monitoring and supervision by the adult authorities: "The ethical implications of these emerging practices are fuzzy and ill-defined. Young people are discovering that information they put online to share with their friends can bring unwelcome attention from strangers."

Findings of the third aspect presented highlighted the extent to which students were able to make informed choices when interacting with technology. In general, the mean values obtained for this aspect were all high with the lowest mean value (mean = 3.7) registered only when utilising technology to communicate ideas, and utilising technology to collaboratively build knowledge. These findings corroborate that students are well accustomed to the general function of digital literacy, which involves utilising technology for purposes of facilitating the learning process, for instance, exploring and personalising technology and services.

However, students do face some challenges when technology is utilised as a form of communicating academic aims, such as choosing media (technology) for communicating ideas and solving problems using appropriate ICT tools. Bawden (2008, pp. 29-30) refers this aspect of digital literacy to Central Competencies which explicates the functions of finding/searching, navigating, synthesising, critically analysing, creating, and communicating. In fact, this skill of critically evaluating search results from the Internet should be the thesis of a repertoire of digital literacy skills since it is this skill that determines the productive and effective use of technology, i.e. the Internet (Henry, 2005).

The fourth aspect of Beetham and Sharpe's (2011) model discusses the students' attitudes and values in utilising technology to support and enhance their teaching and learning process. This fourth aspect, to a large extent, is an extension of the second aspect of the model and is eventually the ultimate aim to achieve in any digital literacy endeavour. In general, the findings addressed high mean values for the items where students are able to effectively utilise technology in a meaningful and comfortable manner to enhance their learning process.

Interestingly, even though not entirely unanticipated, the findings also corroborated the common findings of other studies where students face challenges in awareness and ethical usage of technology (Pramela Krish, Hafizah Latif & Zalina Mohd Lazim, 2012; Koo, Wong & Kemboja Ismail, 2012; Kaur, 2013). Findings of this fourth aspect also conform to findings of the second aspect where low mean values were obtained for items that attempted to measure students' attitudes and values towards critical and ethical awareness of digital literacy. This concern was clearly asserted by Murray and Perez (2014) whereby they stated that many students may not have the necessary exposure and preparedness of differentiating technology use for personal and academic purposes. To this effect, they pointed out that the students may not be fully prepared to "...cross the bridge between personal and academic use

USING BEETHAM AND SHARPE'S (2011) MODEL IN ANALYSING THE DIGITAL LITERACY PRACTICES OF ESL STUDENTS IN AN INSTITUTION OF HIGHER LEARNING

of technology. As academic knowhow is gained through formal education, so too must technological prowess be gained through structured learning experiences" (p. 88). Hence, the onus is on academics to ensure that classroom experiences are enriched through technology as a supplementary tool to enrich learning outcomes when learning ESL.

Conclusion

There is no denying that digital literacy is ubiquitous in this era of Information Age. In fact, digital literacy permeates our lives in various manifestations, especially in tertiary education, from social media community to as simple as obtaining information using search engines. In general, digital literacy encompasses the knowledge, skills and awareness of searching, evaluating and disseminating digital information for purposes of improving and facilitating one's work. Similar to reading and writing not fully constituting literacy, accessing the Internet or using the iPad also does not equate to possessing a comfortable level and skills of digital literacy.

This study investigated how ESL tertiary students in a Malaysian higher education institution perceived their digital literacy awareness, knowledge and skills in engaging with technologies relevant in the teaching and learning process. Data was collected and analysed in light of the four hierarchical aspects proposed in the Beetham and Sharpe's (2011) model of digital literacy.

Survey findings indicated a generally high mean value suggesting that the students were comfortable in utilising technology to enhance their second language learning process. This asserts that students possessed good digital literacy skills. However, concerns were addressed for areas of digital literacy, particularly when students had to evaluate the currency of information and providing appropriate evidence and citation to the information obtained, especially information from the Internet.

References

- Bawden, D. (2008). Origins and Concepts of Digital Literacy. In C. Lankshear & M. Knobel (eds.), *Digital Literacies: Concepts, Policies & Practices* (pp. 17-32). New York: Peter Lang.
- Bennett, L. Learning from the early adopters: developing the Digital Practitioner. Research in Learning Technology, Accessed: 14 February 2015 from <http://www.researchinlearningtechnology.net/index.php/rlt/article/view/21453>
- Buck, A. (2012). Examining digital literacy practices on social network sites. *Research in the Teaching of English*, 47 (1), 9-38.
- Duggan, A., Hess, B., Morgan, D., Kim, S., & Wilson, K. (2001). Measuring students' attitudes toward educational use of the Internet. *Journal of Educational Computing Research*, 25 (3), 267-281.
- Hague, C. & Payton, S. (2010). Digital literacy across the curriculum. Future lab. Accessed: 25 January 2015 from http://www2.futurelab.org.uk/resources/documents/handbooks/digital_literacy.pdf
- Henry, L. A. (2005). "Information search strategies on the Internet: A critical component of new literacies". *Webology*, 2(1), Article 9. Accessed: 19 January 2015 from <http://www.webology.org/2005/v2n1/a9.html>

USING BEETHAM AND SHARPE'S (2011) MODEL IN ANALYSING THE DIGITAL LITERACY PRACTICES OF ESL STUDENTS IN AN INSTITUTION OF HIGHER LEARNING

- Jenkins, H., Clinton, K., Purushotma, R., Robison, A.J.&Weigel, M. (2006). *Confronting the Challenges of Participatory Culture: Media Education For the 21st Century*. Chicago: The MacArthur Foundation. Accessed: 25 January 2015 from http://digitalllearning.macfound.org/atf/cf/%7b7e45c7e0-a3e0-4b89-ac9c-e807e1b0ae4e%7d/jenkins_white_paper.pdf
- Kaur, S. (2013). Critical literacy practices of English majors in a tertiary institution. *Gema Online Journal of Language Studies*, 13 (2), 21-39.
- Koo, Y.L., Wong, F.F. & Kemboja Ismail. (2012). Students' critical consciousness through critical literacy awareness. *Gema Online Journal of Language Studies*, 12 (1), 127- 143.
- Lankshear, C. & Knobel, M. (eds.) (2008). *Digital Literacies: Concept, Policies and Practices*. London: Peter Lang.
- Mathews, D., &Schrum, L. (2003). High-speed Internet use and academic gratifications in the college residence. *Internet and Higher Education*, 6, 125-144.
- Murray, M. C., & Pérez, J. (2014). Unravelling the digital literacy paradox: How higher education fails at the fourth literacy. *Issues in Informing Science and Information Technology*, pp.11, 85-100. Accessed: 28 December 2014 from <http://iisit.org/Vol11/IISITv11p085-100Murray0507.pdf>
- Pramela Krish, Hafizah Latif & Zalina Mohd Lazim. (2012). Editorial: Interdisciplinary perspectives on culture, power and values: Language and literary studies in the local-global context. *Gema Online Journal of Language Studies (Special Edition)*. Vol. (2), 339-341.
- Prensky, M. (2001). Digital natives, digital immigrants. *On The Horizon*, 9(5). Accessed 23 January 2015 from <http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>
- Sharpe, R. (2014). What's at the top of the pyramid? *Effective Learning for the Digital Age*. Accessed: 23 January 2015 from <http://dlf.brookesblogs.net/archives/127>
- UNESCO (2011). Policy Brief of Digital Literacy in Education. UNESCO Institute for Information Technologies in Education. Accessed: 21 January 2015 from <http://unesdoc.unesco.org/images/0021/002144/214485e.pdf>
-

Biodata:

Malini Ganapathy is a lecturer at the English Language Studies Section, School of Languages, Literacies and Translation, Universiti Sains Malaysia. Her research interests are in the areas of literacy practices in language learning and teaching, Multiliteracies, Writing and Innovations in Language Teaching and Learning. She has presented papers in several conferences and has published in the above-mentioned areas. Address of correspondence: School of Languages, Literacies and Translation, Universiti Sains Malaysia. Email: malinik@usm.my

USING BEETHAM AND SHARPE'S (2011) MODEL IN ANALYSING THE DIGITAL LITERACY PRACTICES OF ESL STUDENTS IN AN INSTITUTION OF HIGHER LEARNING

Vighnarajah is a Senior Lecturer and Programme Chair for Master of Education at the School of Education, Languages & Communications, Wawasan Open University. His areas of expertise includes e-learning, pedagogy, open educational resources and distance education. He has played various roles such as reviewer, presenter, session chair, plenary speaker and award recipient. Address of correspondence: School of Education, Languages & Communications, Wawasan Open University. Email: svighna@wou.edu.my

Sarjit Kaur is a Professor and Programme Chairperson of the English Language Studies Section, School of Humanities, Universiti Sains Malaysia. Widely published, her research interests include English for Specific Purposes (ESP), Teaching English as a Second Language (TESL), Oral Communication, Learner Autonomy, Multiliteracies and policy research in higher education. Address of correspondence: School of Humanities, Universiti Sains Malaysia. Email: sarjit@usm.my