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ESL Students' Evaluation of Online Information in Academic English Reading Classrooms

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ABSTRACT

In English as a Second Language (ESL) classroom context, the Internet is also part of the learning repertoire as students often refer to online sources to fulfil their academic needs. However, despite the common assumption that the current students are 'digital natives', past studies have revealed that Malaysian undergraduates struggled to evaluate the credibility of online information when accessing online reading materials. In fact, it was reported that the execution of information literacy education in Malaysia continues to be a challenge and requires further research. Such revelation points to the current dilemma of the students not possessing the appropriate skills needed as tertiary learners. As such skill is paramount to help them complete their academic reading tasks, the students' understanding of credible Internet sources is therefore worth investigating. To investigate the undergraduates' online reading practices in the Malaysian ESL classroom, data was obtained from two local public universities in the Southern state of Malaysia. The quantitative data from the activities conducted suggests that the participants possess limited ability in evaluating the accuracy of online information. Qualitative data from the semi-structured interviews and classroom observations meanwhile provides the evidence of the students' lack of skills in online information evaluation and their lack of interest to participate in the activities. The findings address the growing concern regarding the need to improve the undergraduates' competence in assessing the trustworthiness of online sources.

Keywords: Online reading, ESL students, online inquiry, online information literacy

1.0 INTRODUCTION

As one of the most significant technological advancements in history, the Internet has become an important, if not indispensable, tool for communication, information retrieval, transaction processing and problem solving (Fallows, 2005; Friedman, 2005) in all aspects of our lives. In classroom contexts, learners today rely heavily on the Internet as a source of information, rendering the ability to

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comprehend what is read during online research and learning even more crucial to knowledge-based societies (Goldman, Braasch, Wiley, Graesser, & Brodowinska, 2012). "The plethora of information available online, coupled with heavy reliance on the Internet by information seekers raise issues of the credibility or quality of information found online" (Metzger, 2007). In a study conducted in Malaysia in 2012, it was revealed that Malaysian undergraduates in three universities did not evaluate the content, authenticity, reliability and source of the online information. The students construed the information on a surface level, without being able to sense any hidden biases or opinions (Shariman, Razak & Noor, 2012). In 2014, a study among ESL practitioners from three public universities also reported that the majority of the participants agree that online literacy should be taught explicitly in the classroom due to their concerns over their learners' evaluation of the online information, among other things (Sain, Md Nawi, Mustafa & Kadir, 2014).

One of the possible explanations for this is that many researchers have focused more on how online activities facilitate learning and less on the skills that are essential for the students to effectively engage in those activities. This shift in focus is a consequence of two assumptions. It is a common belief that current students are 'digital natives' (Prensky, 2001) and that they are able to adapt themselves to handle new technologies without proper training and guidance. Secondly, it is widely assumed that the present generation is basically better than the past generation at understanding and utilising technology (Passanisi & Peters, 2013) and possess the ability to transfer their skills and knowledge in dealing with printed materials to online texts (Leu, Kinzer, Coiro, & Cammack, 2004). However, research indicates that the online reading process is not isomorphic with the offline reading process and additional skills are needed in order for the learners to function effectively when reading and evaluating online materials (Coiro & Dobler, 2007; Henry, 2006; Sutherland-Smith, 2002).

This explanatory study investigates the current online reading practices in the digital age specifically in relation to Malaysian ESL undergraduates' comprehension of online texts. This is pivotal in the context of ESL where students not only encounter obstacle engaging in an open-ended environment characterised by voluminous production and consumption of information, but are also working in a language in which they are not fully proficient in. Thus, to make use of new technologies in their academic and future endeavours, it is crucial for Malaysian undergraduates to be aware of the essentials skills for them to autonomously use the Internet as a source of information. Located within the ESL context in two public universities in Malaysia, this study focuses specifically on the use of the Internet as a source of information among the undergraduates.

2.0 THEORETICAL FRAMEWORK

The new literacies perspective guides this study. For the purpose of this study, the "new literacies perspective" will refer to the definition given by Leu *et al.* (2004), which follows:

The new literacies of the Internet and other ICTs include the skills, strategies, and dispositions necessary to successfully use and adapt to the rapidly changing information and communication technologies and contexts that continuously emerge in our world and influence all areas of our

personal and professional lives. These new literacies allow us to use the Internet and other ICTs to identify important questions, locate information, critically evaluate the usefulness of that information, synthesize information to answer those questions, and then communicate the answers to others (p.1572).

As literacy practices change as society changes, the definition of literacy needs to be updated constantly. In lieu of this, the term new literacies have also included other aspects of reading and writing required when engaging in online texts (Coiro, Knobel, Lankshear & Leu, 2008; Leu, Kinzer, Coiro, Castek & Henry, 2013). Since students typically use the Internet to pose a question or solve a problem (Coiro & Castek, 2011). thus, when they read to comprehend online texts, they are engaging in online research. Under the new literacies perspective, the term *new literacies of online research and comprehension* (Kingsley & Tancock, 2014; Leu *et al*., 2013). describes what takes place when an individual read online texts in order to learn or search for information. This term, which substituted the term *online reading comprehension*, is more appropriate and makes it easier to differentiate the characteristics of online reading and offline reading. This is because online research needs skill with other additional technologies (e.g., search engines, note-taking tools) and also requires several social practices (e.g., utilising a search engine to locate information about the creator or author of a website to help establish the reliability of the information).

According to Leu *et al*. (2013), there are at least five processing practices that takes place when a person conducts online research and comprehension: reading to define important questions, reading to locate online information, reading to critically evaluate online information, reading to synthesise online information and reading and writing to communicate online information. These processes are considered to comprise most of the skills and strategies that are distinctive to online research and comprehension in a complex mixture of both offline and online reading that researchers are still trying to fathom which leads to the issues surrounding the use of the Internet in ESL classrooms. The findings from this study seek to prove that the assumptions regarding the mastery of digital native students are incorrect and also emphasise the need to explicitly develop the necessary skills based on the new literacies of online research and comprehension perspective.

3.0 METHODOLOGY

3.1 Sampling Size

219 undergraduates (61 male and 148 female) from two public universities in Malaysia took part in this study. The participants were selected using a convenient sampling method from five academic English classes. They were around the age of 18 to 22 years old. These 219 students were first to third semester ESL students from various courses.

3.2 Research Instruments

There were four instruments used for this research. The first instrument is the Online Survey of Reading Strategies (OSORS) (Anderson, 2003). 22 questions from the Online Survey of Online

Reading Strategies was adapted in this study in order for the researchers to get an idea of the undergraduates' existing online reading and comprehension strategies. The Cronbach's alpha for the overall OSORS was .92. The survey contains three categories. The reported reliabilities for each category are Global Reading Strategies, .77; Problem Solving Strategies, .64; and Support Strategies, .69. These data help to establish that the OSORS is a reliable instrument for assessing the metacognitive online reading strategies of second language (L2) reading strategies. The second instrument was the online information evaluation activity. The participants were presented with a website link on a rare species of octopus in the Pacific Northwest that lived in trees. The website was designed by Lyle Zapato as a hoax and was frequently by researchers to assess students' ability to evaluate online information. They were given 30 minutes to read the information on the website and were required to answer five questions regarding the content of the website. The third instrument was a semi-structured interview. Two random students were chosen from each of the five academic English classes to describe their answers verbally in a 15 minutes interview based on the online information evaluation activity. In order to ascertain the validity of the self-reported survey, classroom observations were conducted during the online information evaluation activity.

3.3 Research Procedures

In this mixed-method sequential explanatory study, two sets of data were collected. The researchers base the investigation on the assumption that collecting diverse types of data best provides a wholesome understanding of the research problem than either the quantitative or qualitative data alone. This type of research will require the researcher to conduct quantitative research, then analyses the results and builds on the results to explain them in more detail with qualitative research (Creswell, 2013). The quantitative data in this research were collected from the OSORS. The online survey was administered using Qualtrics and the results were analysed using Qualtrics' analyse function. After the participants had taken the OSORS, they were required to work on online information evaluation activity. From this activity, the researchers were able to conduct classroom observation and look into the participants' comprehension and evaluation of the online informational text that was presented to them. To complement the online information evaluation activity and classroom observation, semi-structured interview sessions were carried out with ten random students. After the activity, the selected participants were interviewed and asked to describe and reflect on their online information texts evaluation when completing their academic tasks. The qualitative data from the interview sessions were recorded and manually transcribed and then analysed using thematic analysis to identify themes and concepts. Similarly, data from the observations were analysed to complement the overall findings.

4.0 FINDINGS

Firstly, this study attempts to investigate the participants' existing online reading strategies. Table 1 illustrates the top ten online reading strategies as identified in the OSORS.

Table 1 Top ten online reading strategies

Strategy statement	Type of strategy
Strategy 10: I stop from time to time and think about what I am reading online.	Problem solving
Strategy 14: I try to guess what the content of the online text is about when I read online.	Global
Strategy 7: I decide what to read closely and what to ignore when reading online.	Global
Strategy 11: I use context clues to help me better understand what I am reading online.	Global
Strategy 22: I think about information in both English and my native language when reading online.	Support
Strategy 4: I try to get back on track when I lose concentration.	Problem solving
Strategy 15: I re-read online text to increase my understanding when online text becomes difficult.	Problem solving
Strategy 18: When I read online, I guess the meaning of unknown words or phrases.	Problem solving
Strategy 6: I adjust my reading speed according to what I am reading online.	Problem solving
Strategy 8: I use reference materials (e.g. an on-line dictionary) to help me understand what I read online.	Support

From Table 1 above, it is noted that five of the top ten strategies (50%) are Problem Solving Strategies, three are Global Reading Strategies (30%) and two are Support Strategies (20%). One of the strategies: I critically analyse and evaluate the information presented in the online text is not listed in the top ten online reading strategies among these undergraduates. This further explains the participants' responses in the second activity: evaluation of online information.

In the evaluation of online information activity, four out of five questions deal with online information evaluation. Question one required the participants to state the main idea of the webpage where majority of the participants (203 participants or 92.7%) copied the answers directly from the online text. The second question that was posed to the students in the activity is "Is the information provided accurate? Provide reason for your answer." 198 participants (90.4%) answered, "yes" while 11 (5%) answered "no or unsure" and 10 participants (4.5%) gave unrelated answers. The third question asked the participants to identify whether the author bring any biases in posting the information and surprisingly none of the participants were able to answer this question properly. Most of the answers that were given were irrelevant excerpts taken from the text, added with their own opinion. The next question in the activity questioned whether the information is current and timely. 201 (91.7%) participants answered, "yes" and the rest gave unrelated responses. The last question seeks to know the participants' overall impression of the webpage. Following their positive responses in question two, three and four, 209 (95.4%) participants responded favourably, citing how the webpage looks "professional," "perfect," "attractive," and "informational."

These revelations were supplemented with the follow up semi-structured interviews. The ten random participants elaborated their answers in the 15-minute interview sessions for the researchers to gain more insight pertaining to the evaluation of online information activity. Two themes emerged from the content analysis in relation to the evaluation of online information. The first theme is insufficient English language proficiency. The students acknowledged that despite their familiarity with the online learning environment, their weak English language proficiency hampered their understanding of the online texts. Not only do they have problem in ascertaining the meaning of unfamiliar words found online, nine out of ten participants also admitted that they were unsure what the word bias (in question three) means. One participant cited how he had heard the word bias before and had a general idea of what it means but could not put his thoughts coherently to better answer the question. This explains why the majority of the participants were unable to answer the properly even though they can somewhat comprehend on a surface level what the content of the website is about. The second theme is motivation. All of the participants agreed that they were not motivated to check the accuracy of the online information presented to them during the classroom activity. This is because they falsely believe that the classroom activity is just to test their understanding of the text and not their online research and comprehension abilities. Two participants commented how the website looked "childish" and "funny," yet they thought that the layout or presentation of the material has nothing to do with the credibility of the information. All the respondents failed to notice that the author's information on the website was missing. One participant admitted to being suspicious of the content of the website after a friend pointed out an online article discussing the "fake" octopus. However, the participant did not do anything about it. When asked towards the end of the interview regarding their opinion towards undertaking online research and comprehension strategies lessons, to better assist them in evaluating online information in order to complete their academic tasks, all of the ten selected participants (100%) agreed that they lack awareness regarding the importance of online content evaluation strategies and would like to undergo lessons pertaining to online research and comprehension strategies.

Findings from the classroom observation suggests several behaviours that indicate their lack of enthusiasm and skills in participating actively during the online information evaluation activities. For instance, some of them can be seen being occupied doing unrelated activities such as surfing entertainment websites and checking their social media account. While they were doing the tasks, some noticeably discussed the answers with their peers sitting next to them resulting in them posting similar answers. In terms of their lack of skills, a number of the participants struggled to identify the right keywords or search terms to be used for the activities. They also frequently asked for help from the class instructor on how to go about completing the tasks. Another evidence of their lack of skills was in terms of website navigation ability where they fail to locate the information regarding the author of the webpage for one of the tasks.

5.0 DISCUSSION

This study has helped in determining whether online research and comprehension strategies may contribute to the improvement of the students in evaluating online informational texts. These essential strategies should not be taken for granted especially when a study reported that 61.9% of the library and media teachers did not teach information literacy in their school resource centres in one of the states in Malaysia. 59.5% of these teachers had not attended any courses on information literacy, and 81% of them felt that they needed more training in the area (Tan & Singh, 2008). Such revelation points to the current dilemma of the students not possessing the appropriate skills to embark on online research and comprehension tasks as these skills are considered as a given for 'digital natives.' If the teachers are not teaching the much-needed strategies or not confident in teaching these strategies, our students will miss the crucial knowledge that would equip them in their learning process. Efforts to teach online informational text evaluation must be realistic in its expectations of the students by recognizing that motivation is crucial in students' willingness to go the extra mile to verify the credibility of the source of the online information. Teachers and educators could include information about the negative repercussion in relaying incorrect online information, to motivate the students to critically assess the validity of the online information.

Failure to recognise the issues discussed above will leave students unsupported in developing the skills they need in the online learning environment, which is detrimental to the teaching and learning process. Awareness of these issues will enable educators to hone students' skills in using online resources for academic purposes. It is intended that the findings from this study demonstrate the competence of L2 ESL undergraduates in use of Internet as one of the source of information. Therefore, educators should not assume that just because their students "know how to navigate the Internet – that is they know how to point, click, and type – they are also able to comprehend and analyse the information they locate" (Kymes, 2007). The students will benefit from the explicit instruction and guidance given by their educators on how to go about in seeking and evaluating information online. This is supported by past studies conducted in New Zealand and Singapore where the increasing recognition of the need to teach online literacy strategies explicitly to the students was highlighted in the study (Probert, 2009; Foo *et al*., 2014).

The findings from this research highlights the growing concern among educators about the ability of the current generation to critically evaluate online information sources in order to complete their academic tasks. It is also hoped that the findings from this research would further assist language practitioners and policymakers to put forward approaches to boost the online research and comprehension skills among the students in Malaysia so that these students may utilise their skills and strategies for their future needs.

REFERENCES

Anderson, N. 2003. Scrolling, Clicking, and Reading English: Online Reading Strategies in a Second/Foreign Language. *The Reading Matrix*. 3(3): 1-33. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.110.2782&rep=rep1&type=pdf.

Coiro , J. , & Castek , J. 2011. Assessment Frameworks for Teaching and Learning English Language Arts in a Digital Age. In D. Lapp & D. Fisher (Eds.). *Handbook of Research on Teaching the English Language Arts*. New York, NY: Routledge

Coiro, J., & Dobler, E. 2007. Exploring the Online Reading Comprehension Strategies Used by Sixth-Grade Skilled Readers to Search for and Locate Information on the Internet. *Reading Research Quarterly*. 42(2): 214-257.

Coiro, J., Knobel, M., Lankshear, C., & Leu, D. 2008. Central Issues in New Literacies Research. In J. Coiro, M. Knobel, C. Lankshear & D. Leu (Eds.). *The Handbook of Research on New Literacies*. New York: Lawrence Erlbaum Associates.

Creswell, J., W. 2013. *Research Design Qualitative, Quantitative and Mixed Method Approaches*. Fourth Edition. California: Sage Publications.

Fallows, D. 2005. Search Engine Users: Internet Searchers are Confident, Satisfied and Trusting—But They are Also Unaware and Naïve. Report for the Pew Internet and American Life Project. Retrieved from http://www.pewinternet.org/PPF/r/146/report_display.asp.

Foo, S. Majid, S., Mokhtar, I. A., Zhang, X., Chang, Y. K., Luyt, B., & Theng, Y. L. 2014. Information Literacy Skills of Secondary School Students in Singapore. *Aslib Journal of Information Management*. 66(1): 54-76.

Friedman, T. L. 2005. *The World is Flat: A Brief History of the Twenty-First Century*. New York: Farrar, Straus & Giroux.

Goldman, S. R., Braasch, J. L. G., Wiley, J., Graesser, A. C., & Brodowinska, K. 2012. Comprehending and Learning from Internet Sources: Processing Patterns of Better and Poorer Learners. *Reading Research Quarterly*. 47(4): 356-381. http://doi.org/10.1002/RRQ.027.

Henry, L. A. 2006. SEARCHing for an Answer: The Critical Role of New Literacies While Reading on the Internet. *Reading Teacher*. 59(7): 614- 627.

Kingsley, T., & Tancock, S. 2014. Internet Inquiry. *The Reading Teacher*. 67(5): 389-399. http://doi.org/10.1002/trtr.1223.

Kymes, A. 2007. *Investigation and Analysis of Online Reading Strategies*. Unpublished doctoral thesis, Oklahoma State University. Retrieved from http://digital.library.okstate.edu/etd/umi-okstate-2231.pdf.

Leu, D. J., Kinzer, C. K., Coiro, J. L., & Cammack, D. W. 2004. Toward a Theory of New Literacies Emerging from the Internet and Other Information and Communication Technologies. *Theoretical Models and Processes of Reading*. 5: 1570-1613.

Leu, D. J., Kinzer, C. K., Coiro, J., Castek, J., & Henry, L. A. 2013. New Literacies: A Dual-Level Theory of the Changing Nature of Literacy, Instruction, and Assessment. In *Theoretical Models and Processes of Reading*. 1150–1181. Retrieved from http://medcontent.metapress.com/index/A65RM03P4874243N.pdf.

Metzger, M. J. 2007. Making Sense of Credibility on the Web: Models for Evaluating Online Information and Recommendations for Future Research. *Journal of the American Society for Information Science and Technology*. 58(13): 2078-2091. DOI: 10.1002/asi.20672.

Passanisi, J., & Peters, S. 2013. What's So Hard About Research. Retrieved from Scientific American website: http://blogs.scientificamerican.com/guest-blog/2013/06/19/whats-so- hard-about-research.

Prensky, M. 2001. Digital Natives, Digital Immigrants Part 1. *On the Horizon*. 9(5): 1-6.

Probert, E. 2009. Information Literacy Skills: Teacher Understandings and Practice. *Computers and Education*. 53(1): 24-33. http://doi.org/10.1016/j.compedu.2008.12.018.

Sain, N., Md Nawi, S., Mustafa, H., & Kadir, H. 2014. Investigating the Needs for Innovative Online-Based Research Practices in the ESL Classrooms. *7th International Conference on University*

*Learning and Teaching (InCULT 2014) Proceedings.*663-673. DOI: 10.1007/978-981-287-664-5_52.

Shariman, T. P. N. T., Razak, N. A., & Noor, N. F. M. 2012. Digital Literacy Competence for Academic Needs: An Analysis of Malaysian Students in Three Universities. *Procedia- Social and Behavioral Sciences*. 69: 1489-1496.

Sutherland-Smith, W. 2002. Weaving the Literacy Web: Changes In Reading From Page To Screen. *The Reading Teacher*. 55(7): 662-669.

Tan, S., M. & Singh, D. 2008. An Assessment of the Information Literacy Levels of Library and Media Teachers in the Hulu Langat District , Malaysia. In*: International Conference on Libraries, Information and Society, ICoLIS 2008, 18-19 November 2008, Petaling Jaya, Malaysia*. 79-89. Retrieved from myais.fsktm.um.edu.my/8581/n2.173.

Zapato, L. 1998. Save the Pacific Northwest Tree Octopus. Retrieved from http://zapatopi.net/treeoctopus/.

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