

**INFORMATION LITERACY ABILITIES IN ESL CLASSROOMS**

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**Abstract**

Recent advancements in information and communication technologies have directly affected education, as it requires learners to be more information literate to achieve academic success. Information literacy (IL), defined as the “ability to access, evaluate and use information from a variety of sources” (ANZIIL Framework, 2004, p.3) is seen as a prerequisite for achieving learners’ purposes and goals. This article reports on a study of IL abilities of ten university students as they worked on their English Language class assignments. We evaluated these abilities through document analysis, a student questionnaire, and interviews with three teachers who taught these students. The results show the effect of students’ level of English Language proficiency on their IL abilities. These findings suggest the need for English Language classes to provide more opportunities and guidance for these learners to become more competent and independent information users.

**Keywords:** information literacy, ESL learning, higher education

**INTRODUCTION**

Rapid expansion of communication technologies in the 21<sup>st</sup> century promises an influx of information and countless opportunities for learning. The Australian and New Zealand Information Literacy Framework (ANZIIL), as reported by Bundy (2004), asserts that there is an ongoing proliferation of information access, provided by resources in communities, organisations, manufacturers, service providers and media. Fifteen years ago, individuals received information largely from printed media like newspapers and periodicals. However, the introduction of the World Wide Web and modern telecommunication technology to all parts of the world “has increased the speed of information dissemination, thus altering the ways how readers comprehend and use information” (Kress, 2000, p. 183).

Copious information flow enabled by new information and communication technologies (ICT) has also significantly affected the conditions in which language learning and language teaching take place (Block & Cameron, 2002). In a traditional classroom, teaching and learning are largely dependent on textbooks with the teacher serving as the sole provider of knowledge. However in contemporary classroom activities, we observe a significant change in the transmission of information. As Kress (2000) notes, “Technologies has caused information to lend itself to visualization, a phenomenon in which information initially stored in written form is translated into visual form” (p.183). Information of various kinds is more aptly expressed in the visual, rather than the verbal

mode, hence indicating the popularity of Internet as a source of information. In addition, contemporary classes use information in multiple visual, graphical and aural forms, thus adding to the complexity of using information (Bundy, 1998). Students no longer wait for information to be distributed to them, and have become more independent in seeking and selecting information that suit their purposes.

Despite the advancement and changes that come with information, it also brings about some major challenges. The rise of the Information Age brings about several key issues on understanding, evaluating and using different types of information. How do we make sense of information that come from different sources? How do we know whether the information that we have chosen is useful, correct or reliable? What can we do with it? How can we find the information that suits our purposes?

Sayers (2006) also points out an interesting question of the equality of information distribution to the different parts of the world. Even though Internet based information is widely used, whether Internet use reaches the far corners of the world remains unclear. Another issue that Sayers emphasizes is the use of English as the medium of information which provides more advantage to native speakers. Learners who use English as a second or a foreign language would find more difficulty in comprehending information. People from non-English-speaking environments face language barriers in comprehending and using information.

### **INFORMATION LITERACY (IL)**

Since rapid advances in information technology affects education, IL has become a basic criterion for academic success. IL is the ability to find, evaluate and use information from a variety of sources. Wijetunge and Alahakoon (2005) described it as “the ability to identify, locate, evaluate, organize and effectively create, use and communicate information to address an issue or a problem” (p. 31). American Library Association, as cited by Bundy (2004, p. 5) describes IL as “the ability to recognize when information is needed and the ability to locate, evaluate and use effectively the needed information.”

Crucial to IL are skills in communication, critical thinking, problem solving as well as collaboration and teamwork. More importantly, the Australian Library and Information Association, as reported by Bundy (2004), posits that IL is a prerequisite for participatory citizenship, social inclusion, the creation of new knowledge, personal, vocational, corporate and organizational empowerment and lifelong learning.

IL is increasingly important in diverse learning settings since it offers many advantages to an individual and to communities. In an information literate environment, students can learn in an active, self-directed way, and teachers can engage students through more adventurous teaching styles (Wijetunge & Alahakoon, 2005).

IL in Malaysia is not new. The NILAM (Nadi Ilmu Amalan Membaca) Reading Programme initiated by the Ministry of Education was implemented in 1999. This programme is an approach to inculcate reading culture into primary and secondary students in the country. The programme encourages students to read more extensively and not merely for the purpose of examination. Additionally, it encourages schools to generate creative and innovative ideas to instil the reading habit. The NILAM programme

is a clear example of IL promotion that revolves around the roles played by schools, specifically university, school and public libraries (Abdul Karim, 2004).

IL is also of great interest to Malaysian librarians and information professionals who understand its importance and the roles and responsibilities that they have in information literacy education. The National Information Literacy Agenda (NILA) was set up to establish a national IL standard with pertinent performance indicators and learning outcomes, and to create IL programmes for schools, institutions of higher learning, and national and public libraries (N.N. Edzan & Mohd Sharif, 2005). In addition, NILA also aspires to create an interest group within the Malaysian Librarians' Association to discuss IL issues and to establish an institute to act as a centre for IL reference, research, training and promotion.

IL initiatives in Malaysia have yet to include different teaching and learning contexts. In the language classroom, IL is also relevant in harnessing reading comprehension, building critical and analytical perspectives and using and gaining new knowledge to enhance students' abilities.

Given the above issues, we aim to study IL in Malaysia in the context of teaching and learning of English as a second language. In this case study of the IL abilities of ten selected students in Universiti Kebangsaan Malaysia, we asked the following questions:

1. What types of IL abilities do the students have?
2. Does students' language proficiency affect their IL abilities?

## **THEORETICAL FRAMEWORK**

This study uses an Information Literacy Model, The Empowering Eight (E8). The Empowering Eight (E8) framework, established by Library Associations in Sri Lanka in 2004, is unique as it recognizes "the composite culture and local conditions" (Wijetunge & Alahakoon, 2005, p.31) in the countries of Asia, whose main languages are not English. The model also includes the corresponding learning outcomes for each component of IL abilities. The model is based on the argument that the cultures and local conditions of developing nations are different from those of developed nations that have previously produced major IL frameworks. Therefore, we chose E8 for this study as it fits the background of students in the study, situated in a developing country like Malaysia. Table 1 elaborates on the E8 Framework, as cited by Wijetunge and Alahakoon (2005, p.37) .

**TABLE 1:** Components and learning outcomes of empowering 8 (E8)

Step	Empowering 8 Components	The student will be able to:
1	Identify	<ul style="list-style-type: none"> <li>• Define the topic or subject</li> <li>• Determine and understand the audience</li> <li>• Choose the relevant format for the finished product</li> <li>• Identify the key words</li> <li>• Plan a search strategy</li> <li>• Identify different types of resources where information may be found</li> </ul>
2	Explore	<ul style="list-style-type: none"> <li>• Locate resources appropriate to the chosen topic</li> <li>• Find information appropriate to the chosen topic</li> <li>• Do interviews, field trips or other outside research</li> </ul>
3	Select	<ul style="list-style-type: none"> <li>• Choose relevant information</li> <li>• Determine which sources are too easy, too hard, or just right</li> <li>• Record relevant information through note making or making a visual organizer such as a chart, graph, or outline etc.</li> <li>• Identify the stages in the process</li> <li>• Collect appropriate citations</li> </ul>
4	Organise	<ul style="list-style-type: none"> <li>• Sort the information</li> <li>• Distinguish between fact, opinion and fiction</li> <li>• Check for bias in sources</li> <li>• Sequence the information in a logical order</li> <li>• Use visual organizers to compare or contrast information</li> </ul>
5	Create	<ul style="list-style-type: none"> <li>• Prepare information in their own words in a meaningful way</li> <li>• Revise and edit, alone or with a peer</li> <li>• Finalize the bibliographic format</li> </ul>
6	Present	<ul style="list-style-type: none"> <li>• Practice for presentations activity</li> <li>• Share the information with an appropriate audience</li> <li>• Display the information in an appropriate format to suit the audience</li> <li>• Set up and use equipment properly</li> </ul>
7	Assess	<ul style="list-style-type: none"> <li>• Accept feedback from other students</li> <li>• Self asses one's own performance in response to the teacher's assessment of the work</li> <li>• Reflect on how well they have done</li> <li>• Determine if new skills were learned</li> <li>• Consider what could be done better next time</li> </ul>
8	Apply	<ul style="list-style-type: none"> <li>• Review the feedback and assessment provided</li> </ul>

		<ul style="list-style-type: none"> <li>• Use the feedback and assessment for the next learning activity or task</li> <li>• Endeavour to use the knowledge in a variety of new situations</li> <li>• Determine in what other subjects these skills can now be used</li> <li>• Add product to a portfolio of productions</li> </ul>
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No one can attain IL skills such as these in isolation. According to the ANZILL Framework (2004, p. 7), it is highly necessary to include fundamentals of generic skills, like problem solving, teamwork and collaboration, communication and critical thinking, especially in achieving higher-order literacy standards.

## RESEARCH DESIGN

This study is based on a case study to identify the IL abilities of ten students in Universiti Kebangsaan Malaysia in preparing their speech outlines in a Public Speaking course. We also aim to discover whether the students' English language proficiency reflects their IL abilities.

We chose ten first-year undergraduates who were taking a Public Speaking course using the 'purposive sampling' technique (Punch, 2005). This allows the researchers to obtain and record firsthand information from the subjects. We based the selection criteria on the students' achievement in the Malaysian University English Test (MUET). For the purpose of this study, we chose students with MUET Band 3 and 5 deliberately. According to the Malaysian Examinations Council, MUET Band 3 students are categorised as modest users of English, while those with MUET 5 are identified as good users of the language. In this study, we accordingly recruited five students with MUET Band 3 and five students with MUET Band 5 in order to determine whether there is a relationship between English language proficiency and IL abilities.

In this study, we used three research methods incorporating the students' speech outlines, open-ended questionnaires and interviews with the students' teachers. We used the three instruments concurrently and triangulated the data analysis in order to understand the students' IL abilities.

Student's speech outlines are a basic requirement in the Public Speaking course. Throughout the course, the teachers ask students to write two speech outlines for informative and persuasive speeches. In completing these two speeches, students have to choose their own topics that are suitable for the purpose of the speech as well as for the audience. The speech outlines served as guidelines to organise their thoughts and elaboration on the presentation topic. In order to complete these outlines, the students have to do a lot of reading and search for appropriate and useful information on the topics of their choice. At this point, they are expected to apply IL skills. Therefore, the speech outlines are the most important tools to investigate the students' IL abilities. For the purpose of this study, we analysed the selected students' speech outlines for their Persuasive speech, using the E8 model.

To improve data collection, the students completed a set of open-ended questionnaires, comprising three categories: the students' background information, their views on English language learning, and their practices in completing the speech outline for Public Speaking. Teachers' feedback on the students' progress in writing speech outlines, gathered from the interview, provides more convincing evidence of their IL and language proficiency. We also examined the questionnaire and teacher interview data using the E8 model to gauge the selected students' IL abilities.

Triangulating data from these three methods helps answer both research questions and understand students' IL abilities and its relationship to English language proficiency.

## FINDINGS AND DISCUSSION

We used the Empowering Eight (E8) model as a benchmark to identify students' IL abilities. To show the types of IL abilities clearly, we partitioned the results into two groups representing MUET Band 5 and MUET Band 3 students.

### a) Step 1-4 : Identify, Explore, Select and Organize

**TABLE 2:** Step 1-4 of the E8 model

Step	Components	Criteria	MUET 5	MUET 3
1	Identify	<ul style="list-style-type: none"> <li>a. Define the topic or subject</li> <li>b. Determine and understand the audience</li> <li>c. Choose the relevant format for the finished product</li> <li>d. Identify the key words</li> <li>e. Plan a search strategy</li> <li>f. Identify different types of resources where information may be found</li> </ul>	<ul style="list-style-type: none"> <li>√</li> <li>√</li> <li>√</li> <li>√</li> <li>√</li> <li></li> </ul>	<ul style="list-style-type: none"> <li>√</li> <li>√</li> <li></li> <li>√</li> <li></li> <li></li> </ul>
2	Explore	<ul style="list-style-type: none"> <li>a. Locate resources appropriate to the chosen topic</li> <li>b. Find information appropriate to the chosen topic</li> <li>c. Do interviews, field trips or other outside research</li> </ul>	<ul style="list-style-type: none"> <li>√</li> <li>√</li> <li></li> </ul>	<ul style="list-style-type: none"> <li>√</li> <li>√</li> <li></li> </ul>
3	Select	<ul style="list-style-type: none"> <li>a. Choose relevant information</li> <li>b. Determine which sources are too easy, too hard, or just right</li> <li>c. Record relevant information through note-making or making a visual organiser such as a chart, graph, or outline etc</li> </ul>	<ul style="list-style-type: none"> <li>√</li> <li>√</li> <li>√</li> </ul>	<ul style="list-style-type: none"> <li>√</li> <li></li> <li></li> </ul>

		d. Identify the stages in the process e. Collect appropriate citations	√ √	
4	Organise	a. Sort the information b. Distinguish between fact, opinion and fiction c. Check for bias in the sources d. Sequence the information in a logical order e. Use visual organizers to compare or contrast information	√ √  √	√   √

Based on the table above, the data show that students with MUET 5 have more IL abilities as compared to students with MUET 3. The result shows that students with MUET 5 could identify the information they need, explore the related source of information and select needed information. They could also organise the information to meet the task's requirements. These abilities are evident in the arguments, elaborations and support that the students presented in their outlines.

The MUET 3 students could also identify, explore and search for the information they needed. However, they were unable to judge and determine which information and sources were too easy, too hard or just right for the task assigned. They simply chose the information they felt was related to their topics without being able to assess the importance of the information.

Furthermore, it is clear in the outlines we reviewed that the MUET 5 students could synthesise and judge the importance of each idea. They could select suitable and important arguments to support their reasons. Additionally, students from MUET 5 could provide appropriate citations to support their arguments, while MUET 3 students were unable to use such citations in their arguments. This finding suggests that language proficiency affects students' ability to synthesise and judge the information they found. Extract 1 illustrates the case in point.

Extract 1

MUET 5:

*“Physical health is not about medicine and drugs or even health insurance. It is basically about a simple diet and appropriate exercise....Research done by Food Science students of University of Wales shows that this simple diet ....”* (M5 : s2)

MUET 3:

*“The advantage pursue to postgraduate study is you can become a specialist in your chosen area. Beside that you can upgrade your skills and knowledge. Example you want to choose MBA because you want to learn more about entrepreneurship before you set up your own business.”* (M3 : s1)

b) **Step 5 : Create**

**TABLE 3:** Step 5 of the E8 model

Step	Components	Criteria	MUET 5	MUET 3
5	Create	a. Prepare information in their own words in a meaningful way b. Revise and edit, alone or with a peer c. Finalise a bibliographic format	√  √ √	  √

Table 3 shows that students from MUET 5 could rewrite and use information in their own words while students from MUET 3 could not use their own words to communicate ideas. Both groups, however, could revise and edit their work as they were working. An interesting observation noted here is that both groups stated in the questionnaire that their teachers played a significant part in helping them with outlines. The teachers helped them to write as well as develop and elaborate their ideas. The help was very much focused on language skills such as vocabulary, sentence structures and grammatical structures. The episodes took place when the students were working on their drafts before they submitted their final outlines. This finding clearly indicates that for both high and low MUET bands, the students still depended on teachers' help to develop their ideas into writing, which emphasises the need to incorporate writing skills into Public Speaking classes.

Our data also shows that students from the MUET 5 used a proper bibliographic format while the MUET 3 did not give proper bibliographic citations. This finding is an important indication of IL abilities, as students need to be aware of the source and content of information to help them determine whether the information is trustworthy and useful. MUET 5 students cited the author's name, year of publication, title of the article and the URL address while the MUET 3 student only cited the URL. Below is an extract of the bibliographic citation from two subjects of the study.

Extract 2

MUET 5:

Ri Zhong Zhi Xing. 2004. *The secret hidden in the Forbidden City*. (online document) <http://oldbeijing.org/Article/Class67/4220.html> (15<sup>th</sup> May 2005) (M5 : s4)

MUET 3:

*www.mabecs.com – leaving home for an education in UK* (M3 : s3)

c) **Step 6 : Present**

**TABLE 4:** Step 6 of the E8 model

Step	Components	Criteria	MUET 5	MUET 3
6	Present	a. Practices for presentations b. Share the information with an appropriate audience c. Display the information in an appropriate format to suit the audience d. Set up and use equipment properly	√  √  √ √	√  √  √

The data from Table 4 also show that both groups of students were well-prepared for their speech presentation. They practiced for the presentation and could present their persuasive speeches to the class. This might be because the students had done two graded speeches earlier in the semester and were already comfortable with the audience. In addition, the students' outlines provided evidence showing that MUET 5 students could arrange and present their arguments in an appropriate format to persuade the audience. MUET 3 students, on the other hand, could not organise their ideas to present their argument clearly. The MUET 3 students simply stated the reasons without evaluating the arguments and therefore, they could not convince the audience. Extract 3 shows an example.

Extract 3

MUET 5

*“The second formula you should practice to achieve happiness is through healthy emotional climate. Emotion is an essential element in happiness. A good and well controlled emotion always makes us happy while a troubled mind will only keep you down all the time ....”* (M5 : s2)

MUET 3

*“Postgraduate study will increase your knowledge, which can give you the chance to explore a subject in depth. Example develop your project management skills, develop your research skill and your intellectual curiosity and demonstrate that you can motivate yourself to achieve high standards by doing a postgraduate study.”* (M3 : s1)

d) **Step 7 and 8 : Assess and Apply**

**TABLE 5:** Step 7 and 8 of the E8 model

Step	Components	Criteria	MUET 5	MUET 3
7	Assess	a. Accept feedback from other students b. Self assess one's performance in response to the teacher's assessment of the work c. Reflect on how well they have done d. Determine if new skills were learned e. Consider what could be done better next time	√ √ √ √ √	√ √
8	Apply	a. Review the feedback and assessment provided b. Use the feedback and assessment for the next learning activity or task c. Endeavour to use the knowledge gained in a variety of new situations d. Determine in what other subjects these skills can now be used e. Add product to a portfolio of productions	√ √ √ √ √	√ √

According to the teachers, the MUET 5 students could assess their IL abilities better than MUET 3 students. Both groups were able to accept feedback from the teachers and their friends. They were also able to reflect how well they did their presentations. We made this observation during the feedback session in the mock presentation. We saw that the MUET 5 students had more IL abilities, as they could assess themselves based on the teacher's comments and could identify new skills they had learned. Students from MUET 3 could neither assess themselves nor suggest any new skills they had learned.

The E8 model in Table 5 also emphasises differences in the subjects' abilities to apply the new skills learnt. The questionnaire shows that both levels agreed that they could use the knowledge they had gained in new situations, and that they could identify subjects in which to use their new skills. MUET 5 students, however, were better at applying and using their new skills as compared to MUET 3 students. MUET 5 students said that they could review the feedback and assessment to help them use their new skills in other learning activities. They could also add the new items to their personal portfolios. This is evident in the questionnaire answered by the students - *"I discovered new things while writing the outline"* (M5: s4,s1)

In short, the discussion of students' IL abilities in relation to their language proficiency levels heightens the need for teachers to re-structure their classrooms and provide more learning opportunities for both groups. To conclude, Table 6 illustrates the answers to Research Question 1 and reports the types of IL abilities the students have based on their MUET levels.

**TABLE 6:** Summary of students' IL abilities

<b>MUET Band 5</b>	<b>MUET Band 3</b>
Able to identify, explore, select, and organise information to meet the requirement of the task	Able to identify and explore information
Able to select and organise new information	Unable to select and organise new information. Unable to create or respond to new information.
Able to create and use own words	Unable to create or use own words. Simply state the ideas
Able to make connections between ideas and display information in an appropriate format	Unable to combine ideas or information in new ways and make connections between ideas
Able to assess and apply new skills learnt	Minimal ability to assess and apply new skills learnt

Correspondingly, Table 7 shows the answers to Research Question 2. The table provides evidence that students' English language proficiency level affects their IL abilities. Students with low proficiency levels have lower order IL abilities than students with higher proficiency levels.

**TABLE 7:** Summary of students' language Skills

<b>MUET Band 5</b>	<b>MUET Band 3</b>
Able to elaborate and use own words to elaborate the contents. The elaborations are also supported by findings.	Unable to elaborate the contents. The elaborations are not supported by findings.
Use more materials from English language	Use more materials from Malay language and other languages.
Demonstrate comfort in using the language to present the content. Able to present the arguments to persuade audience.	Display discomfort while presenting due to limited language proficiency. Unable to display the information in an appropriate format.
Demonstrate the ability to assess and apply indicating self-directed and independent learning.	Lack of ability to assess and apply; which indicates dependent learning.
Able to select appropriate language (words, phrases, vocabulary, transitions) and tone e.g., <i>"I'm sure all of you are feeling enthusiastic to know why you should be an Au Pair in America right now. Allow me to start convincing you with my first reason."</i> (M5 : s5)	Unable to select appropriate language (words, phrases, vocabulary, transitions) and tone e.g., <i>"Let me start by convincing you with the first reason why you buy original records."</i> (M3 : s5)

## RECOMMENDATIONS

The findings of this study are relevant to teaching and learning. Based on the E8 Framework, second-language learners in this context still need more awareness and guidance in order to become more competent information users, especially when the information is in English. We make the following recommendations based on our findings.

In an IL classroom, both teacher and students need to change their roles from a traditional teacher-student pattern to a more dynamic relationship. In this classroom, the teachers and students should assume the role of co-authors of the learning process. Information in the learning process is not meant only to be read and understood, with the teacher as a guide and the students at the receiving end of acknowledging and understanding. Information should also be analysed thoroughly, applied in different perspectives, modified, challenged and reconstructed. Both parties need to be aware of these varying practices with information so that they can be more analytical in knowledge seeking, and hence prepare them to live and work in an information-centred society and to become lifelong learners.

Therefore, teachers should not be the sole source of information, but rather, should be intermediaries of active learning. They act as mediators between students and information. They are not only the facilitators who assist and guide students in understanding certain texts, but, also lead students in acquiring IL abilities. Teachers have to re-orientate their classroom environments by encouraging students to bring new information to the classroom through text comprehension and letting students produce new oral and written knowledge.

As for language teachers in particular, learning English is not only about comprehending and writing texts using the language but also extends to bringing out the students' creative and critical abilities. Teachers should encourage more independent learning and self discovery that ensures active learning by the students. In an information- literate environment, students should participate in active, self-directed learning activities that let them:

1. seek a rich range of information sources;
2. communicate an understanding of content;
3. pose questions about the content being learned;
4. use the environment, people, and tools for learning;
5. reflect on their own learning;
6. assess their own learning; and finally,
7. take responsibility for their own learning.

(Adapted from: Hancock, 1993)

Project based learning in small groups, for example, offers a good opportunity for students to acquire Information Literacy skills. It allows critical discussion and continuous collaboration among members in coming up with the final solution or product for the group. Individual activities like speech presentation also encourages the use of IL skills as students need to find, judge, evaluate, organise and finally use the information to give a presentation on a chosen topic.

Apart from that, cross-disciplinary projects also help students, encouraging them to cross from one area such as communication into another area such as engineering or science. For example, a project based on the communication styles among engineers would require students to study communication as well as engineering, and would develop students' knowledge in the two areas.

Final project presentation is highly encouraged as it improves students' delivery and interpersonal skills.

To summarise, educators must take the challenges of the Information Age very seriously. This includes restructuring the learning process to reflect the use of information in the real world, as well as to draw on curricula and syllabi that require students to seek and give knowledge rather than just receiving it. Problem-based projects, case studies, or even miniature research projects should be introduced into the classroom to encourage active use of information.

## CONCLUSION

In a world where information and technology are intricately intertwined, students require IL abilities in order to function comfortably in their academic lives and everyday tasks. IL grants many advantages to an individual and to the community in general. An information-literate person can use IL to become knowledgeable and informed.

IL abilities can be applied to all disciplines, learning environments and level of education. In particular, IL abilities play an extremely important role in a higher education context, as shown in this study. IL abilities allow students to think critically when dealing with information from a variety of texts and sources. Correspondingly, students will be able to extend their abilities and knowledge beyond the surface value of the text and construct new knowledge. Through this practice, students will become more self-directed and take better control over their education.

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