A Descriptive-Comparative Study Between Offline and Online Information Literacy Programs at University Level in Jakarta, Indonesia

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1. INTRODUCTION

Knowing the importance of having information literacy skill in this era of information, many universities in Indonesia have been encouraged to promote information literacy programs. As a higher-education organization, universities intend to pursue its purposes, which is Tridharma Perguruan Tinggi (Three Pillars of Higher Education) comprising education, research, and community service. In order to achieve this purpose, academic libraries facilitate users by teaching the basic competence of information literacy which includes identifying information needs, accessing the information, applying information (includes both evaluating and managing), and understanding the legal, social, and ethical aspect of information usage.

This information literacy program tends to focus, but not limited to, on undergraduate students. Most undergraduate students in 2019 were born from the mid-1990s to the early 2000s which makes them part of Generation Z, who have a higher dependency on technology than those Generation X and Y who were born years before them. It also means that they are the oldest members of digital natives who have been exposed to technology since they were kids and have grown up as the most technologically advanced generation with positive attitudes towards new things. They tend to feel more comfortable exploring the internet rather than going outside to find experts or to look for references in the library. Thus, academic librarians have to take notes on their distinct behaviours and revise their library services. One of the most prominent changes is the kind of information literacy programs offered for undergraduate students. Based on its kind, there are two kinds of information literacy programs held by academic libraries. The first one is an offline

program delivered through teaching sessions in a classroom, while the second one is an online program delivered through social media like Facebook, Instagram, Twitter, and Youtube.

Several studies related to information literacy in universities conclude that academic library has an important role in shaping the library user's literacy level. The study by Jabeen, Yun, Rafiq, Jabeen, and Tahir (2016) for instance, reported that since most students have limited information literacy skills, information literacy skills provided by university library will help the students to obtain the information needed. This is also in line with Kakkonen and Virrankoski (2010), who pointed points out that students found the integrated information literacy course was very useful and help them to have broader perspectives on retrieving the information. Based on this fact, it is certain that using the proper IL program will improve the students' IL skills and help them during academic research or doing an assignment. However, there are no specific studies that discuss information literacy programs for higher education in Indonesia, either using online or offline methods. Based on the previous explanation, the purpose of this study is to establish and compare offline and online information literacy (IL) programs for undergraduate students in Jakarta, Indonesia. By doing so, this study also gives more insights about various kind of IL programs that could be offered by academic libraries. Thus based on characteristics of undergraduate students in each respective universities, librarians around the globe acquire a variety of IL program activities that is more suitable for their users.

2. LITERATURE REVIEW

2.1 Information literacy

In order to develop an understanding of the information literacy concept, it is important to review some terms as defined by different scholars and organisations. Paul Zurkowski (1974) first introduced the term of information literacy and pointed out that information-literate people is the one who know to use the information resources. American Library Association (2000) then develop the definition of information literacy as "a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information". Both definition clearly emphasis on individual skills to recognise information need, evaluate the information found on the available resources, and how to use the information as needed. On the other hand, the development of technology during the past years has also changed the way people search and find the information. Therefore, most of the information in the current days are available in electronic information. Accessing the information through tab, ipad or smartphone is an ordinary view that can be seen in everyday life. Thus, information literacy and web skill are essential in order to retrieve the information. But, most people consider that through learning computer skills will automatically enables students to become information literate (Omar, Haji, & Mwitumbe, 2014). Although computer literacy is considered an important aspect to develop information literacy skills, we cannot ignore other skills as well. Moreover, nowadays information literacy is being seen as an important aspect in education sector. In consequence, the library should develop information literacy program to help the student in recognizing their information needs in line with the other skill set as well. Supporting this view, Chartered Institute of Library and

Information Professionals (2018) point out that due to the significance of information literacy, library need to incorporates critical thinking and create an awareness of the information needed.

2.2 Information literacy in academic library

In this information era, most college students still use search engine as their main tool to find the information. However, they still have a limited amount of IL skills to be used. This condition leads to the idea that higher education has the most responsible in shaping the students' IL as part of knowledge development and critical thinking skills. A number of research have been conducted related to the information literacy in academic library, particularly in university. A study by Lee & Yaegle (2006) examined how the library's integrated IL program support the distance learning students. Resnie, Gibson, Hartsell-Gundy, and Misco (2010) described how the partnership between faculty and library help the librarians in determining the most needed IL skills that students have to develop in order to reach faculty members expectation. The Association of College and Research Libraries (2016) established six framework for information literacy for higher education: (a) authority is constructed and contextual; (b) information creation as a process; (c) information has value; (d) research as inquiry; (e) scholarship as conversation; (f) searching as strategic exploration. Jabeen et al. (2016) recommended that library should have a particular level of freedom to develop IL programs, teaching plans, delivery, promotion and evaluation methods in order to understand student's IL needs.

3. METHODOLOGY

In Jakarta, some universities have required their undergraduate students to attend IL programs to enhance their IL skills. The programs are usually offered by academic libraries as part of their services. Between all universities in Jakarta, we select two universities that have IL programs held by their academic libraries: Universitas Al Azhar Indonesia that mostly offers offline IL programs and Institut Teknologi dan Bisnis Kalbis that mostly offers online IL programs.

The framework is based on a descriptive-comparative analysis conducted at two academic libraries: Perpustakaan Mandiri in Universitas Al Azhar Indonesia and KALBIS Library in Institut Teknologi dan Bisnis Kalbis. This study used comparative analysis to search for similarities and variances between two variables (Mills, Bunt, Bruijin, 2008) and used descriptive approach to describe similarities and variances between these two academic libraries.

Data collection were developed based on observations and interviews. The observations were conducted by the first and second authors as complete participants in both libraries to collect basic data about IL programs, the IL models used, and kind of activities held during the programs. The interviews were conducted to the library staff engaged in IL programs in both libraries to complement the observations. By doing interviews, authors were able to obtain several viewpoints and in-depth understanding of their IL programs. Four key informants who have been engaged in IL programs were selected as interviewees, two from each libraries. In order to avoid bias, the interviews were conducted by the third author who does not work in both libraries. The in-depth interviews focused on:

a) IL model used to design IL programs and abilities that are expected to be developed

b) types of IL programs and media used to deliver the programs

c) form of activities offered and the materials provided

d) frequency of IL programs and basis of that implementation

e) requirements for library staff who is allowed to facilitate a session

f) the number of participants involved per session

g) tools used to evaluate the outcome of IL programs per session

4. RESULTS AND DISCUSSION

4.1 Perpustakaan Mandiri

Perpustakaan Mandiri was founded in 2001, one year after Universitas Al Azhar Indonesia (UAI) was founded. Perpustakaan Mandiri as a university library aims to support UAI to become a leading university in shaping superior and dignified human beings who have intellectual abilities, based on spiritual, moral and ethical values. In order to achieve that as a technical implementation unit, the main function of Perpustakaan Mandiri is to give library services to university lecturers and students as assistance in pursuing Tridharma Perguruan Tinggi. This includes not only books and other academic resources, but also a commitment to educate users on how to use all those resources.

For years, Perpustakaan Mandiri has conducted a user education program for undergraduate students who just filled in membership applications. The program usually started with a library orientation held each year for new students. However, considering changes in this information era, Perpustakaan Mandiri decided to revise this program and expand it to broader scale as an organized IL program. IL program in Universitas Al Azhar Indonesia have been done since last year (2018) through a full-day literacy class. The first batch of IL program consisted of two class held for undergraduate students and one class held for lecturers/researchers. Since then, Perpustakaan Mandiri has been accepting many requests from various department. The request has come not only from the lecturers, but also from the students, both undergraduate and magister programs. Accepting those demands, academic librarians in Perpustakaan Mandiri have been taking turns in teaching literacy classes.

The teaching materials in literacy class (Table 1) may consist of various theme, from introduction to internet tools, tips on evaluating information, guide on citing academic resources by using reference manager, to a focus group discussion held to raise awareness about plagiarism in academic writing. Those materials are selected and organized based on Empowering 8 (E8), an IL Model developed at a joint-workshop organized by IFLA-ALP and the National Institute of Library & Information Sciences (NILIS) of Sri Lanka.

Table 1. Teaching materials in literacy class held by Perpustakaan Mandiri

E8 Components	Expected Abilities	Teaching Materials
1. Identify	1.1. making a research statement 1.2. identifying information needs 1.3. planning a search strategy	a. how to choose a topic and determine research questions b. how to identify keywords and choose related terms c. offline resources (books, newspapers, government reports, etc) and online resources (ebooks, journal articles, etc) d. internet tools (directories and search engines)
2. Explore	2.1. locating appropriate resources 2.2. collecting research data	a. offline places to look for, such as libraries, bookstores, archive and information center, etc b. online sites to look for, such as government websites, institutional repository, journal portals, etc c. data collection methods (interview, survey, field trips, etc) d. google advanced search syntax (incl. boolean operators)
3. Select	3.1. choosing relevant information	a. how to select information from available resources b. how to record information (notes, outline, chart, etc)
4. Organize	4.1. determining the best resources: • checking bias in the sources • comparing contrast information • distinguishing between opinions, facts and hoax 4.2. putting a logical order	a. CRAAP Test to check the currency, relevance, authority, accuracy and pupose of the resources b. REAL Strategy to evaluate websites by (1) reading its url, (2) examining the content and history, (3) asking about both the publisher and the author and (4) looking at the links c. visual organizers, like mind or concept map
5. Create	5.1. making meaningful information 5.2. revising and editing information 5.3. using bibliographic format	a. writing techniques, such as synthesis and summary b. types of paraphrases c. reference styles and citation formats, incl. tutorials for using reference managers and why all of these materials are important (in relation to plagiarism and its consequences)
6. Present	6.1. presenting information 6.2.	a. tools that can be used to present information, like word processors for text, graphic design softwares for image, etc

E8 Components	Expected Abilities	Teaching Materials
	sharing in appropriate format 6.3. setting up equipment needed	b. various kind of presentations, incl. static images (posters, infographics, brochures, etc) and dynamic images (videos, slideshow, animations, etc) c. a brief on types of container format (avi, divx, mp3, doc, gif, jpg and many others)
7. Assess	7.1 accepting feedbacks from others 7.2. determining their own efforts	a. brief assessment on participant's articles or slideshows b. a task to point out several things they could revise based on other's assessment
8. Apply	8.1. using feedback for final products 8.2. applying the knowledge gained for other research and/or subjects	a. a task for participants to revise it onsite b. open discussion about the implications and the possibility of conducting further research based on their research c. knowledge pyramid: data-information-knowledge-wisdom

4.2 KALBIS Library

KALBIS Library was built along its main institution, Kalbis Institute on June 1, 1992, which was formerly registered as Sekolah Tinggi Ekonomi KALBE (STIE KALBE). Over time, the institution experienced several name changes ranging from STIE KALBE, STIE SUPRA and STMIK SUPRA, Institut Teknologi dan Bisnis Kalbe (ITBK) until finally it established a collaboration with Yayasan Bina Nusantara and became Institut Teknologi dan Bisnis Kalbis. KALBIS Library's vision is to become a technology-based center for managing and disseminating information to support Tridharma Perguruan Tinggi and the development of academic knowledge.

In order to achieve their vision, Kalbis Library has several programs, one of which is information literacy. IL program in Institut Teknologi dan Bisnis Kalbis is held more often online through social media. At first, KALBIS Library had only offered an IL program with face to face methods since October 2015. The program was held every two weeks in the library with some additional sessions in a classroom with the lecturers, during student final assignment seminars, along with library education, and many others. However in 2016, KALBIS Library began to revise the IL program by adding various updated materials. It was in 2018, the library started to notice that the student's enthusiasm for IL sessions began to diminish. Although providing free coffee had been done to encourage the number of participants, the students looked less interested in this face-to-face IL sessions. Hence since the end of 2018, KALBIS Library has created additional IL program by using online platforms (Facebook, Twitter, Instagram and Youtube) owned by KALBIS Library since 2015. Previously, those social media accounts were used only to promote the library collections and activities. However at the end of 2018, the librarians have added a new kind of content: IL materials. Based on the tendency of social media applications used by Indonesian students in present time, those IL materials are mostly published on Instagram and YouTube.

In implementing the IL program, KALBIS Library uses the Big 6 model as a reference in making a teaching materials. The materials that used for online program (Table 2) mostly takes from in a Powerpoint presentation format then gets repackaged into posters, videos, and Q&A through Instagram Stories.

Table 2. Information literacy teaching materials by Kalbis Library

Big 6 Stages	Sub-stages	Teaching Materials
1. Task Definition	1.1 Define the information problems 1.2 Identify information needed	a. Determine the topic and keywords b. List of tools to make a mind map
2. Information Seeking Strategies	2.1 Determine all possible sources 2.2 Select the best sources	a. Search tools (online public access catalogue incl. Indonesia One Search the national catalogue, search and metasearch engine, directory, subject gateways) b. Evaluation of printed information c. Evaluation of non-printed information d. How to spot hoax?
3. Location and Access	3.1 Locate sources (intellectually and physically) 3.2 Find information within sources	a. Introducing GALE, EBSCO, Proquest, and Cengage (e-journal subscribed by Kalbis Library) b. Introducing DOAJ and DOAB c. How to find a collections in Kalbis Library? d. Introducing DDC (Dewey Decimal Classification) e. List of free e-journal sources f. List of free ebooks sources g. Introducing e-resources by National Library h. How to use Google Syntax and Boolean Operators?
4. Use of information	4.1 Engage (read, hear, view, touch) 4.2 Extract relevant information	a. SQ3R (Survey, Question, Read, Recite, Review) b. Citation format (APA and IEEE Style)
5. Synthesis	5.1 Organize from multiple sources	a. Synthesis vs summary b. Introducing Mendeley c. Introducing Grammarly d. Plagiarism (incl. citation and

Big 6 Stages	Sub-stages	Teaching Materials
	5.2 Present the information	plagiarism checkers) e. Presentation media (canva, prezi, powtoon) f. Tools to make an infographics
6. Evaluation	6.1 Judge the product (effectiveness) 6.2 Judge the process (efficiency)	a. Evaluating the results or products of research activities which has been done. b. Evaluating the effectiveness of research process or method which has been done.

4.3 Comparison of the two

There are several differences found in IL programs held by these two libraries (Table 3). For instance, Perpustakaan Mandiri uses Empowering 8 because this model offers more detailed steps in terms of academic research. Not only as a guide for conducting a research, this model would help students in writing academic reports. Meanwhile, KALBIS Library uses Big 6 because this model seems more flexible than other IL models. Big 6 could apply to anyone who wants to look for information from various media in our daily life, while other IL models tend to focus on looking for information needed for research or academic writing.

Table 3. Comparison between offline IL program in Perpustakaan Mandiri and online IL program in KALBIS Library

Comparison	Perpustakaan Mandiri	KALBIS Library
IL Model	empowering 8	big 6
Types of IL program	offline	online
Media for IL program	classroom and private session	social media and chat application
Forms of IL program	teaching sessions, discussion, quiz	poster, quiz, video, chat discussion
Frequency of IL program	once a month, based on demand	once per two weeks
Requirements as IL facilitators	a bachelor in library science	a technology-savy bachelor in library science
Number of library staff involved	three librarians	one librarian
Number of participants per session	20-40 participants per class	feed instagram: 30 - 50 likes IG stories: 200 - 300 views Youtube & IGTV: 15-30 views
Evaluation tools	online test (quizizz/kahoot)	the number of likes and views

Other differences that could be noticed is that IL programs in Perpustakaan Mandiri are held offline in a classroom, while IL programs in KALBIS Library are mostly held online through social media platforms. Perpustakaan Mandiri has three public IL lectures throughout year, which can be attended by students and lecturers from various departments. Other than those three lectures, student associations and lecturers from each departments are allowed to hold their own special class and invite librarians from Perpustakaan Mandiri to give lectures. During special classes, they are allowed to request custom materials based on their needs. The special class requested by students and lecturers usually comes one after another, so the librarians have to arrange the class schedule in order not to disrupt the other library services. The arrangement are made based on the order of proposal submitted by student associations or invitation letters sent by lecturers. Since there are a lot of students and lecturers take interest in offline IL programs, online programs have not been fully developed yet by the librarians in Perpustakaan Mandiri. Not only because the librarians have been occupied with IL classes, most participants tend to choose face-to-face session that accommodates in-depth discussion, than face-to-screen session that could only offer limited interactions. During each IL class, the librarians could do an onsite evaluation through online quiz platforms and discuss the result before the class ends by correcting the wrong answers and re-stating the right answers.

However this phenomenon can hardly be found in KALBIS Library which already held an offline classroom per two weeks yet could not get attention needed from students in Institut Teknologi dan Bisnis Kalbis. Several efforts had been done to attract the students, from giving free coffee to changing schedules based on questionnaires filled by students. Hence, KALBIS Library decided to focus more on online programs through their social media accounts that used to upload contents for promotional purpose. IL programs has become one of important contents, especially in Instagram and Youtube that are so popular among students in Institut Teknologi dan Bisnis Kalbis. IL contents in Instagram are posted three times a month in irregular schedule because it has to take turns with other social media content such as promotional events and collection updates, while IL contents in Youtube are posted once a month which means there would be twelve videos in a year. Not only in a form of pictures and videos, online IL programs held by KALBIS Library also features simple evaluation in a form of polling, ask questions, and flash quiz by using instagram features. Once in a while, KALBIS Library also holds an open discussion and Q&A session through Instagram's direct message and LINE chat application. As for internal evaluation, the number of participants could be seen through overall insight. For example in Instagram, the average number of views is 40,98% per post and 18,15% per stories.

Another noteworthy difference is the number of IL facilitators involved in IL programs in Perpustakaan Mandiri and in KALBIS Library. In Perpustakaan Mandiri, there are three librarians taking turn in teaching an IL class. Due to the amount of participants, sometimes they are also assisted by IT staff during reference manager session that requires technology skills. In KALBIS Library, IL programs only requires one librarian because the programs are held online. However, all librarians who serves as IL facilitators in both academic libraries have similar tasks which include: planning IL programs regularly, creating framework related to IL materials, and making IL

materials. The last one differs in form, because the IL facilitators in Perpustakaan Mandiri have to provide IL materials in a form of teaching module, whilst the IL facilitators in KALBIS Library has to re-create IL materials in a form of a creative audio-visual media to look interesting for students.

5. CONCLUSION

In conclusion, each type of IL programs has its own pros and cons. Offline program allows the librarians to deliver the materials thoroughly and make sure that students understand through live discussion and onsite quiz. However, offline programs could only appeal to those who come to the classroom, unlike online programs that could appeal to broader audiences. In the other hand, online programs tend to deliver the materials in the simplest and the most interesting way to make students interested. The sessions are mostly limited to virtual interactions so that librarians would find it hard to make sure if the students understand the materials. If needed, there should be both types of IL programs held by academic libraries. Online programs could be used as a promotion method, while offline programs could be used to deliver more detailed materials. Most students and lecturers in Universitas Al Azhar Indonesia have been interested in IL and keep asking for more sessions, thus offline program is more suitable for them. In Institut Teknologi dan Bisnis Kalbis, most students are not interested in IL programs so online programs have been conducted to reach broader audiences and to make students interested in attending offline sessions.

6. LIMITATIONS OF THE STUDY

This limitation serves to identify problem or weakness in any research that will help to improve further studies or similar research in the same area. Based on our analysis, this study has several weaknesses. First, the samples are rather small compared to the number of universities exist in Jakarta. Although descriptive-comparative study can be done with two samples, the authors might have been biased in selecting these two samples due to working backgrounds. Regarding this personal issues, the third authors that is not affiliated with both academic libraries had participated to avoid bias in this study. However, it would be better if there is a certain criteria used to select samples for other similar studies.

Besides that, time constraint might also be another factor that has contributed to the small sample size as two of three authors are working in both samples respectively. Hence, it is recommended for any further studies in related areas to expand their time limit. By doing so, it will be possible for them to use different methods other than a simple descriptive approach. That will also allow them to have more in-depth analysis, use more criterias for comparison, and get more detailed results.

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