

AM I INFORMATION LITERATE? AND HOW LIBRARY SUPPORT MY INFORMATION NEEDS?

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ABSTRACT

Article clarifies information literacy (IL) implementation that is recognizing information needs, finding information, valuing, selecting information, creating new information and presenting it to get some inputs, applied in Cornell University, Dayton University, North Sumatera University, Duta Wacana University, and Bina Nusantara University. Data were collected by library research. It can be concluded that IL implementation in some mentioned universities have met the IL standards, IL is needed to develop students' knowledge, skills, and performance, some IL have applied in the formal teaching activity, so that it needs to be researched so that all parties are satisfied and the goal of study can be achieved.

Keywords: *information literacy, library, information need*

ABSTRAK

Artikel menjelaskan pelaksanaan Literasi Informasi, yaitu bagaimana mahasiswa mampu mengenali kebutuhan informasi, menemukan informasi, menilai serta memilih informasi yang relevan, membuat informasi baru, dan mempresentasikan informasi baru tersebut yang telah dilaksanakan di Universitas Cornell, Universitas Dayton, Universitas Sumatera Utara, Universitas Duta Wacana, dan Universitas Bina Nusantara. Data diperoleh dari studi literatur. Disimpulkan bahwa implementasi IL di berbagai universitas tersebut telah memenuhi standar literasi informasi, literasi diperlukan guna mengembangkan ketrampilan, pengetahuan, dan kinerja mahasiswa sehingga mereka menjadi pembelajar seumur hidup, beberapa literasi informasi telah diterapkan sebagai materi pembelajaran yang formal dan hal ini harus terus dievaluasi agar tujuan pembelajaran tercapai.

Kata kunci: *literasi informasi, perpustakaan, kebutuhan informasi*

INTRODUCTION

Background

When reference librarians are on duty, they often find some frequently asked questions coming from students who come to the library as follows: where is the location of management book?, how to find the book among those jungle of library collections?, how to borrow and return the books?, how to use Catalog (a tool for finding books)?, and what book that they should find to compose or make their assignments?. These are basic problems in accessing library collections, and these should be overcome with an appropriate way so that the students are motivated enough to find literatures or information that they need.

Information on how to access library collection, recognizing the services, retrieving and storage information, valuing information, and use them legally belong to the aspect of information literacy (IL) which was, “The ability to identify what information is needed, understand how the information is organized, identify the best sources of information for a given need, locate those sources, and evaluate the sources critically.” (http://www.webs.uidaho.edu/info_literacy).

To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information. American Library Association. Presidential Committee on Information Literacy. Final Report. (Chicago: American Library Association, 1989).

In relation to the carrying out of IL program, a library should be responsible by putting collection in a system that is easily accessible by users, providing guidance, and socializing the library rules to the users, and these are the jobs of *reference librarian*. Reference librarian job descriptions are to guide users in accessing library room, socializing library regulations, introducing catalog as a tool for finding collections, guiding users to retrieve and storage information, as well as functions as library public relation. So, reference librarian’s jobs are closely related to the library users, who are students, lecturers, researchers, and staff with their various activities, complains, and also appreciation.

Based on the relationship of IL application and reference librarian’s roles and competence, are we sure enough that library users, especially students, are already information literate?. It means that the students are aware of their surroundings, they are able to recognize their needed information, know where and how to find them, know to select and evaluate the information, and use them properly. Indicators that students are already information literate are they are independent in accessing and using information, the raising amount of students’ outputs, such as reports, thesis, and papers, also the decreasing of plagiarism.

The coverage of literacy is getting broader, it is not only has a single meaning but multi literacies, those are computer literacy, media literacy, technology literacy, economy literacy, information literacy, and moral literacy. Specially in IL, a person can be considered as literate if he or she is able to comprehend something as a result of his/her reading’s understanding , and do a proper conduct based on that reading comprehension. Literate generation are those who have critical thinking skills to all information got before developing it becomes a new information.

Based on the mentioned problem statement, the goals of the study are to find out some university’s model of IL which supports their learning and research activities, and to analyze the applied model of IL and the concept of its development in some universities.

RESEARCH METHODS

This study applied library research in which presenting some sources concerning IL application in overseas universities, such as Cornell and Dayton universities, also national universities, for example Universitas Sumatera Utara (USU) and Universitas Kristen Dutawacana, as well as IL practice in Bina Nusantara University.

RESULTS AND DISCUSSION

Framework of Thought

Kuhlthau (1993) presented a concept of information seeking process that was applied to guide IL curriculum at Cornell. This information search process model included not only cognitive aspect of the search process but also the affective aspect of information searching, as the following Figure 1.

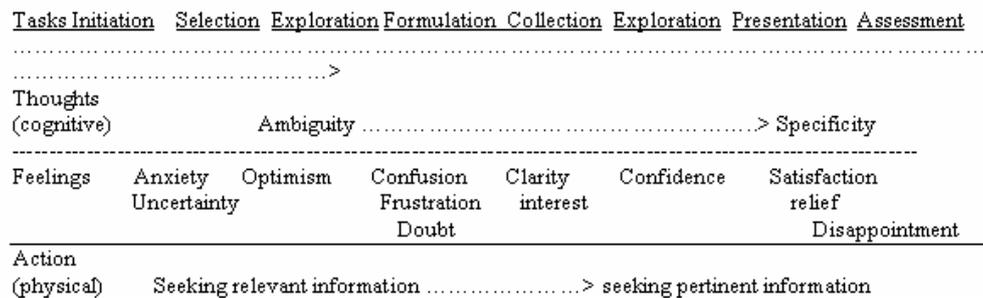


Figure 1 Kuhlthau's Information Search Model
(Source: Adapted from Carol C. Kuhlthau, *Seeking Meaning*, Ablex (1993: 217)

Figure 1 shows a condition in which students experience negative feelings (such as anxiety, uncertainty, frustration) and librarian should invite them, discuss the problem, and help them overcome these discomfort feeling. Librarians also use the model to motivate students in accelerating the process of information literacy from tasks initiation, selection, exploration, formulation, exploration, presentation, and assessment. Cooperation between librarians as guide and motivator and students as learners must be sustainable carried out. Finally, the students gain enough familiarity to consider a clear research question and then develop a thesis.

On the other hand, librarians should be equipped with practical tools in order to decrease plagiarism practice, intellectual/academic dishonesty, as well as the practice of cut-and-paste from internet resources that is not valid. To remedy this case, a cooperation of library and department is needed to prevent students from plagiarism that sometimes they do not realize.

Cornell University decided an integrated approach to IL. The roles of librarians as agent of IL to students were better developed by the role of lecturers that would provide good circumstance for learning. By integrating IL instruction into courses, students experienced IL instruction over their study time in a variety of learning development, with varying degrees of complexity in their tasks. They could learn concepts through direct instruction from their lecturers, followed closely by

librarians who guided as well as independent experiences in applying what they learned. Students experience the continuity of support from a faculty member and a single librarian throughout a project.

In line with the development of electronic resources, students' IL skills must be developed to access and value this kind of information. It is right that they will get more information easily from e-Books, e-journals, and other knowledge from internet, but in this occasion they should have: ability to value information/knowledge come from internet, especially dot.comers; critical thinking skills that will make them aware of information they got and how to develop the information into a piece of academic output ethically; interpretative skills across professional boundaries and empowers students individuals and in groups; and skills of retrieving information both in basic or advance levels by applying Boolean logic (and, or, not) respectively.

Characteristic of IL Students

Bundy (2004) presents that characteristics of information-literate person as follow: recognising the need for information and determines the nature and extent of the information needed, finding needed information effectively and efficiently, critically evaluating information and the information-seeking process, managing information collected or generated, applying prior and new information to construct new concepts or create new understandings, and using information with understanding and acknowledges cultural, ethical, economic, legal and social issues surrounding the use of information.

IL Implementation at Cornel University

In Cornel, this program is called *One Course at a Time* (OCATT). It is developed by the university and becomes part of institutional bigger program. OCAAT calendar, the academic year is divided into nine terms. Students enroll in one course each term and faculty members teach one course at a time. To complete a full year's requirements, students take courses at least eight of the nine terms. FMs teach six of nine terms. Because Cornell's students take only one course at a time, students seek and consult with the librarian for the division of their current course. FM encourages this consultation strategy (Donham: 219).

Cornell librarians provide formal instruction to classes within their respective divisions, focusing this instruction on the specific assignment required for the course so that IL instruction is contextual. In addition, librarians provide individual consultation to students either in formal, scheduled session, or in less formal impromptu meeting, and this function is called the personal librarian model.

At Cornell, IL class instruction typically occurs during the first two weeks of a term. In short, librarians have tried to take advantage of the OCAAT calendar to intensify the IL instruction program.

IL Programming

For example, the Department of Psychology strives to produce gains in IL in: gathering and critically evaluating information from the primary literature in psychology as published in professional journals and sholarly books; understanding the research methodologies used to produce new knowledge in psychology and their appropriate application and limitation; and knowing how to apply psychological principles to solve human problems and improve functioning in various settings (Donham: 220).

To achieve IL goals faculty and librarian collaborate to provide support for the students throughout the stages of research process. The multimedia studio and writing resource center

supplement that support at the beginning of the process to guide the collection of information based on the format of the final product and at the ending stage to produce and publish results. An important aspect of this model is that IL instruction is not only in the domain of librarian but also faculty, shown in the following activities.

The first stage involves discussing and formulating questions, selecting and perhaps narrowing a topic, and determining the extent of the information needed. At Cornell, students discuss them with professors, librarians, classmates, and staff in the writing resource center or multimedia studio. The second stage involves accessing and gathering needed information, such as developing search strategies, selecting relevant databases and resources, identifying relevant key words, and locating printed material or works. Students ask to locate reports of research on the Web (esp. for Computer Science students). The third stage, professor asks students to write *annotated bibliographies* as an early step in the development of a project. The fourth stage, by students, the obtained information must be evaluated and processed. Students needs background knowledge to evaluate the accuracy of the content and critical thinking skill to evaluate of the presented argument. The final stage is the communication and ideas to others, including choosing a presentation medium, organizing the presentation, creating the web page, creating visual art or graph, writing and editing, and/or making oral presentation.

IL Assessment for Students

The assessment can serve as a guide for students to help them know in advance the expectations and to help them learn the criteria for judging their own work compared to the expectations as the following Table 1.

Table 1 Bibliography Checklist from Cornell University

Criteria
<p>Sources are authoritative. Articles come from journals whose standard for publication include editorial review or peer review. Book cited are authored by individuals with appropriate credentials. Websites are attributed to organizations or individuals with expertise on the topic at hand.</p> <p>Sources are current (Older articles are justified).</p> <p>Sources are varied. Citations represent various media (book, journal, website, etc.) where appropriate, diverse points of view are represented. Sources represent a range of publication dates to show the spectrum of thought on the topic, as appropriate.</p> <p>Sources are of appropriate number. At least (five) different sources are included. No single source provides the primary substance for the final product.</p> <p>Sources represent appropriate scope for the assignment. Books and journal articles are not too highly specialized for the scope of the paper. General reference citations are used as background material.</p> <p>Information from sources is meaningfully integrated into the text of the document.</p> <p>Special-interest web resources are acknowledged as such in the text of the document.</p> <p>Biases are explained.</p> <p>Popular literature is included only when appropriate and is acknowledged as such in the text.</p> <p>Citations follow APA citation style both in the text and in the list of reference.</p>

(Source: Advances in Library Administration and Organization, 231)

The Implementation of IL in the University of Dayton

The University of Dayton (UD) was founded in 1850 by the society of Mary (Marianist). It was a teaching order of priests and brothers. The UD is one of the top ten Catholic Universities in the US and the largest private university in Ohio (Tiller, 238).

Elements of Successful IL Program

Followings are literature reviews that become the basic of IL implementation at UD. It means that IL is prepared well under some experts' recommendation, as follows. First, IL should be viewed as essential to the successful college experience. UD indicates Boyer (1987) statement related to under-graduate that college library must be viewed as essential for developing their experiences, they should be introduced to various resources, accessibility, and services, and encourage them to spend more time at the library. Later, Owusu-Ansah (2001) stated that library must be resources for students not just to pass a course, but they also confident enough to live in a society or environment that requires information to solve problems.

Second, IL should be thought through active learning. Based on Fosmire and Macklin (2002) as well as Brock, *et al* (2002), they suggest problem-based learning (PBL) as an *active learning technique*, because it integrates information skill into course content. Third, IL should target a progression of skills and concepts. Boff and Johnson (2002), Harley (2001), and Parks (1996) stated that IL should be prepared for First Year Experience (FYE) courses offer, including library orientation and simple searching. Emmons and Martin (2002) also stated that students should be empowered to question and evaluate each IL steps. Fourth, IL should emphasize transferable concepts over instruction on how to use specific tools for libraries.

Fifth, IL programs encourage librarian and faculty collaboration. Rader (1995) suggests the collaboration of librarian and lecturer who will give assignments related to library collection. Sixth, IL programs should not "stand alone". Elmborg (2003) advocates stressing IL in the context of writing across the curriculum so that students see the library's importance in the development of ideas and writing process as it unfolds in all the classes they are taking. Seventh, IL programs should educate the faculty. Macklin (2001) urges librarians to help lecturers know and utilize library collection in their teaching. Eighth, IL programs should encourage the responsible use of increasingly expensive library resources, print, and electronic. Ninth, IL programs should prepare students for lifelong learning. Sonntag and Ohr (1996) claimed that the university has a duty to prepare students for a world of information that change rapidly. Learning environments should be encouraged for students supported by librarian and lecturers. Tenth, IL programs should undergo continuous assessment.

IL Implementation in North Sumatera University (USU)

Hasugian (2008) said that the concept of IL had been introduced since early of 70's, there were some terminologies related to IL such as *study skills*, *research skills*, and *library skills*; whereas in the working environment it was called *information competencies* and *information proficiencies*.

In a library context, IL is always related to the ability to access and properly used the available information coming from both inside and outside libraries. Students' abilities and skills related to IL activities done by Work Group on Information Literacy from California State University was also clarified by Hasugian (2008) in the following integrated process in which the students are able to: find issues, questions, or research problems; decide information needed for clarifying issues, questions, or research problems; know the place and find the relevant information; organize information; analyze and evaluate information; synthesize information; communicating information by applying some IT facilities; use IT infrastructure to access information; comprehend ethics, law, as well as social and

political issues related to information and IT; use, evaluate, and have critical thinking in mass media information; and appreciate that expertise resulted from information competences can be the basic of long life learning (California State University, 2002).

Based on those integrated skill needed in IL, it can be considered also the integrated efforts coming from librarian and lecturers who are able to direct and continuously guide those students so that they are motivated and comfortable enough in their learning process in university. In spite of technical skills in accessing and using information, the students also produce information outputs that will be stored in libraries. Therefore, the process of knowledge management is also embedded in IL activities.

Jonner (2008) also mentions that based on the Association of College Research Libraries (ACRL), the literate person have the ability as follows. First, deciding characteristic and scope of information needed by defining needed information, identifying various format and information resources, reevaluate the characteristic and scope of information. Second, accessing the needed information effectively and efficiently selecting the appropriate information retrieval, applying the strategy of effective information retrieval, information retrieval, change the information retrieval strategy; quoting, note, and quoting information and its resources. Third, evaluating critically information and its resources getting the main idea of information, collecting old ideas to make the new ones, comparing the old and new knowledge to consider value added and unique information characteristics, and considering whether the new value gives impact to somebody's value. Fourth, utilizing information to give solution by utilizing new and old information to create exclusive information, revising development process in order to be productive, socializing the new information. Fifth, understanding economy, law, and social aspects related to information use understanding economic, law, socioeconomics issues related to information and information technology, obeying regulation and institutional policy as well as ethics related to information accessibility and utility, Appreciating the utility of information resources in communicating products and performance.

Those abilities can lead students to be a long-life learner, and they will be competitive enough in living in the global environment and be successful in life based on their IL skills. In Higher Education practice, IL program is integrated to *learning how to learn concept* (Kapitzke, 2003), that is to teach how to learn that empower learner to develop material independently through discussion, observation, literature study, documentation study (inquiry method), and developing learners' internal motivation to have a deep learning. By those concepts the learner can be an active learner to be aware of the current information, and one of the places is library. To be an independent user means that the students are able to explore and find information as well as utilize the information for decision making or conclusion that is an important skill for students. In this case, the higher education should apply curriculum based competence.

IL implementation at USU was based on The Big 6 model which consists of 6 skills and 12 steps for Library Science Students in which they will do the following steps. First, problem formulation. It is done by brainstorming (5W 1H), Clustering shows topic interrelation by applying Mind map, sketch, picture, free writing related to chosen topic. The output is problem formulation. Second, information retrieval strategy to find goals, or problem solution, either from primary, secondary, and tertiary information resources. Third, locating and accessing information by using OPAC, internet, and electronic databases. Fourth, information utilities done by reading, listening, and extracting relevant information. It means to decide part of information that will be used, select data in line with research problems, and evaluating information sources. Fifth, synthesizing that is comparing, managing, composing, and combining information into an information product and presenting it. Sixth, evaluation, to know whether all the information process is in line with the goals (efficiency).

IL Implementaion in Duta Wacana Christian University

Proboyekti said that the application of IL is based on BIG6 model. It is applied in all study programs: Faculty of Theology and Faculty of Engineering. In brief, the application of BGI6 is as follows. *Problem formulation*: after getting a topic the students should do the brainstorming (5W, 1H), Clustering (using chart), Free writing related to the topic. *Information Retrieval Strategy*: based on topic, students explore primary, secondary, and tertiary sources, either printed or electronic. Students have to map the needed information. *Located and accessing information* (practice in lab, continued by independent searching). The effective searching depends on keywords and language used in the information sources. *Information utilities*: information selection, evaluation, and designing new information. *Syntesized information*: how to manage, compare, compose information to create new information, completed by citation and reference lists using either MLA or APA style. Students have to appreciate copyright and avoid plagiarism. Then, they practice to compose a paragraph, and mastering tools for information synthesis, such as computer program, Hebrew language, and Greece language. *Evaluation*: by presenting new information to audience and get inputs for them. Outputs of IL activities are brochures, teaching method for Sunday School service in the Faculty of Theology, while Faculty of Engineering produces article in IT application and information submitted to WIKI.

IL Implementation in Binus University

IL application in Bina Nusantara University, especially in library, has been consistently conducted since 2000 and is still being developed with the following activities. In 2000 till 2004: library orientation for students, catalog/OPAC development, reference guide. In 2005 till 2007: former activities plus e-Journal access, Information retrieval, new student orientation, “capita selecta”, Introduction of Research Methods modules development at the psychology department containing IL materials (L0032). In 2008 till 2009: additional activities are development of reference service by reference librarian, mobile librarian to help users coming to library, introducing library collection and services to students, lecturers, and visitors coming to libraries, teaching scientific writing. Next, in 2010: introduction of library collection and services materials is published in magazines for student orientation, supporting buddy programs that help new students in accessing library materials, providing information retrieval skills for researchers and lecturers.

From the description of those mention activities, it can be concluded that library always tries to apply IL requirements, that is to guide student on how to find information that they need in the library and using internet facilities. And it is along process to get students are able independently accessing information. To achieve this goal, the Library and Knowledge Center (LKC) conducts a user study concerning library general services and collection and will develop its program based on students’ inputs.

The Development of IL Modules for Class Application

Since 2007, the psychology department asked librarian to make a module for as a prerequisite for research method subject that he called: the introduction of research methods with the following objectives. First, developing students’ awareness on their information needs that will be support their learning, research, and teaching activities. Second, developing students’ skills in retrieving information they needs, recognizing some libraries, documentation, and information offices, electronic resources that can be accessed through websites, either using simple search or advance search (Boolean Logic Operation). Third, developing students’ skills in valuing and selecting appropriate information for their research/project. Fourth, developing students’ academic writing skills, including respecting copyright law in the practice of quotation, bibliographic, and composing literature review. This module has been revised in 2009 with a deepen discussion and practice on information mapping by using mind map, information retrieval, valuing information, and a simple scientific writing including writing authoritative documents.

The courses are carried out in 13 meetings, in which 10 of them are face to face, and 3 of them are independent activities. The students can go to the library, labs, and other places related to their academic activities, and then they have to compose a scientific report that must be submitted on that day.

Interaction between lecturer, students, and librarian in class were running well. It can be seen from the process and output presented by students, such as follows. First, recognizing information needs and know the place to find it. The outputs are information packages that students like, such as “*How to go to Bali in efficient expenses, How to maintain a hobby.*” Second, describing thought based on information content with the outputs are mind maps, in the forms of linear graph, spider graph, sequence, and cycle. Third, information retrieval and evaluation, the output is a piece of scientific passage (related to psychology topics) based on appropriate information got from their searching. This tends to library activities guided by librarian, continued by composing a short writing guided by lecturer. Fourth, literature review in the form of Pathfinder. This is the final output because it integrates all aspects. Pathfinder is lists of information resources: books, articles, non-book materials indicating one topic. This IL module is continuously developed.

CONCLUSION

Based on the various IL implementations in national and overseas universities, it can be concluded as follows. First, the national universities (North Sumatera University, Duta Wacana University, Bina Nusantara University) and overseas universities (Cornell, Dayton) have implemented the similar IL model with the cooperation of faculty (lecturer), library (librarian), and students. They cooperate to develop students' independent in IL. Second, IL is needed to improve students' personal quality to be a long-life learner so that they will be capable in achieving their ideals through better knowledge, skills, performance, and critical thinking utilization. Third, there are many IL implementations that are formally applied in the teaching materials. It is good, but a research to evaluate the process of learning, students' performance, and lecturer's creativity should be researched to achieve better IL advantages for all parties.

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