CHAPTER II

REVIEW OF RELATED LITERATURE

2.1. Information Literacy

Before discussing information literacy, it is better to know first about literacy and information, which is the word literacy is increasingly being heard today. Invitations to improve literacy skills are often appealed either through TV broadcasts, radio broadcasts, the internet or on bulletin boards and even via SMS text messaging. Invitation to literate is broadcast along with the development of social media which causes hoax news to circulate as one of the negative impacts of freedom of expression in cyberspace.

Actually what is meant by literacy? according to Cambridge Dictionary, literacy is ability to read and write. UNESCO explain that litercay is the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. While Organisation for Economic Co-operation and Development (OECD) defines that Literacy is understanding, evaluating, using and engaging with written text to participate in the society, to achieve one's goals and to develop one's knowledge and potential. (Montoya, 2018). And information is a noun that has meaning knowledge obtained from investigation, study, or instruction (Merriam Webster Dictionary, 2020). Information also can be defined as

knowledge about a particular subject, issue, event or process. (SMILE Searching, 2020).

Then what is Information Literacy (IL)?. According to the American Library Association, "information literacy is 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" (Madison College Libraries, 2020). Other definition explains information literacy is "the ability to find, evaluate, organize, use, and communicate information in all its various formats, most notably in situations requiring decision making, problem solving, or the acquisition of knowledge" (For Students: Information Literacy, 2020)

As derived from the Alexandria Proclamation of 2005, adopted by UNESCO's Information for All Programme (IFAP), Information Literacy is the capacity of people to: recognize their information needs; locate and evaluate the quality information; store and retrive information; make effective and ethical use of information, and apply information to create and communicatice knowledge (Catts & Lau, 2008)

It can be conclude that Information literacy is needed by people as a skill to receive and digest information which is then used to communicate and solve problems in their lives. Information literacy is very usefull to avoid hoax news, because by mastering information literacy people will know which news or information is true and which provocative information.

2.2. Information Literacy Assessment

In education information literacy assessment can be used to measure students' information literacy skill and to formulated the best treatment for the students to learn information literacy. Information literacy can be based for the student in doing their lesson and assignment. It is also useful in the lives of students especially to train them to filter information and use it to solve problems.

The level of information literacy skills required is dependent upon both the domain of practice and on the level of performance required of an individual. For instance, the level of information literacy needed for effective performance in elementary education differs from that required in adult and higher education.

Information literacy standards in the education sectors have ben created by UNESCO as means to guide information literacy work in the education sector and have application to both the economic sctor and to lifelong learning capacities, which is to be expected given the purposes of education to prepare people for civic life and to develop or maintain people's employment capacities. All standards recognize with different emphasis, the ability to recognize an information need and the capability to locate, evaluate, store, retrieve, and apply information and to communicate new knowledge.

The information literacy elements as argued by campbell (2004) in (Catts & Lau, 2008) that developed for higher education are applicable accross all domains of

human development. There are: (1) recognize information needs; (2) locate and evaluate the quality of information; (3) store and retrieve information; (4) make effective and ethical use of information, and (5) apply information to create and communicate knowledge).

Within education, the development of information literacy skill was started from kinder garden and continues until udergraduated level and also use in research. There are four level stage of information literacy level: basic, medium, high and advanced. (figure 1).

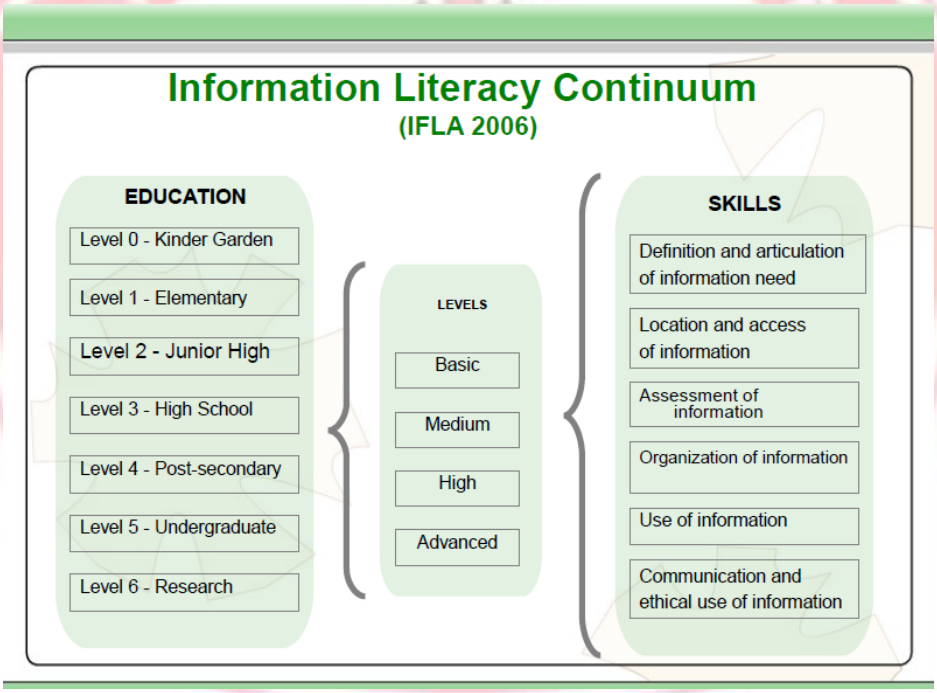

Figure 1. Information Literacy Continuum

There are several sources of information literacy indicators prepared, among others, by UNESCO, namely Relevance of LAMP (the Literacy Assessment and Monitoring Programme); by OECD, namely Potential of PISA (Programme for

International Student Assessment) and by WHO, namely Potential of DHS (the Demographic and Health Survey). And the closest indicators that are suitable for use in this study are information literacy indicators compiled by OECD.

The assessment of scientific competencies in PISA gives priority to three competencies each of which contains three elements. Two of these elements are prima facie also elements of information literacy. The first of these is identifying scientific issues by identifying the keywords to search for scientific information. The second element is interpreting scientific evidence and making and communicating decisions which equates to apply information to create and communicate knowledge.

Information Literacy Element	Source	Item
Recognise information needs	DHS 2007 women's survey	unmet needs for family planning
Locate and evaluate the quality of information	PISA Scientific Competencies OECD (2006, 29)	Identifying scientific issues by identifying the keywords to search for scientific information
	PISA Reading Literacy OECD (2006, 50)	Retrieving specified information from texts
Store and retrieve information	DHS (2007) women's survey	knowledge of a source of contraception
	DHS (2007) Women's survey	knowledge about ways to avoid getting AIDS
	DHS (2007) Women's survey	knowledge about high-risk sexual behaviour
Make effective and ethical use of information	DHS (2007) Women's survey	use of contraceptive methods
Apply information to create and communicate knowledge	PISA Scientific Competencies OECD (2006, 29)	interpreting scientific evidence and making and communicating decisions

Figure 2. Potencial of PISA Information Literacy Indicators

1.3. Information Literacy Competency for Higher Education

Higher education as an institution of science developers and innovators is obliged to ensure that its higher education members have good competence of information literacy, especially for students undergraduate years and graduate programs need to have skill for seeking, eavaluating and managing information gathered from multiple source and discipline-specific research methods.

Association of College and Research Libraries (ACRL) has formulated information literacy competency for higher education. The standards focus upon the needs of students in higher education at all levels. There are five standards and twenty two performance indicators. The 5 standards are:

1. The information literate student defines and articulates the need for information.
2. The information literate student accesses needed information effectively and eficiently.
3. The information literate student evaluate information and its sources critically and incorporates selected information into his or her knowledge base and value system
4. The information literate student, individually or as a member of a group, uses information effectivelly to accomplish a specific purpose.
5. The information literate student understands many of the economic, legal and social issues surrounding information and accesses and uses information etichally and legality.

1.4. Thesis Writing and Academic Writing Learning

Thesis is one kind of scientific paper must be completed by students who studied in university or college. Scientific paper is a written that meets the requirements or rules of science. Whereas according to the Head of LIPI Regulation no. 04/E/2012 explain that scientific paper is writting results of research and development and/or reviews, studies and systematic thoughts poured out by a person or group who meets scientific principles. (DirJen DIKTI. Kemendikbud, 2012).

Maxime Rodburg and the tutor of the Writing center at Harvard University explain that "a good thesis has two parts. It should tell what it plan to argue, and it should telegraph how it plan to argue-that is, what particular support for your claims is going where in essay." There are four steps in constructing a thesis, first is analyze the primary source. Once student have a working thesis, write it down – it is the second step. Next, keep the thesis prominent in the introduction. And the last step is anticipate the counterarguments. (Rodburg, 1999)

Chapter one or introduction section in thesis should draws statement of something that interesting to motivate the reader to read all part of the paper. It is important scientific problem of the paper solves. There are some of parts that should belong in the introductory section: (Kastens, t.thn.)

- A statement of the goal of the paper: why the study was undertaken, or why the paper was written.

- Sufficient background information to allow the reader to understand the context and significance of the question are trying to address.
- The introduction should be focused on the thesis question(s).
- All cited work should be directly relevant to the goal of the thesis.

Ways that students can write a thesis properly and correctly have been taught when the student is taking the academic writing subject. This subject usually given in fifth semester and is a prerequisite subject before they take their thesis. The aim of academic writing subject is to develop the students' ability to write scientific paper and develop the students' information literacy competency as skills to find and manage references material as sources of writing. The students' knowledge that they get in academic writing class will affect their writing result, especially in thesis writing.

2.4. Information Literacy in Scientific Papers

Based on Circular (SE) of the Director General of Higher Education, Ministry of Education and Culture no. 152/E/T/2012 which states that to graduate an undergraduate program must produce papers published in scientific journals. (DirJen DIKTI. Kemendikbud, 2012).

To find out the position or to place the contents of a scientific work in the midst of the relevant scientific arena, usually the author makes observations or a comprehensive evaluation of previous scientific work, either in the form of research or

thought contained in various literatures. This was done so that the writer can know and understand the position of his writings within the relevant scientific framework and broader scientific framework. (Budiyanto).

A scientific paper must fulfill a rule consisting of six characteristics, namely: logical, objective, systematic, reliable, design, and accumulative. (Tim Pusat Pendidikan dan Pelatihan Pegawai Kemendikbud, 2018). The students will easily fill the rule if they masters the informatition literacy.

One of the most fundamental and continuous parts of the scientific process is information literacy. It is essential to continue to review the literature and search for new conversationa while asking questions, designing experiment, analyzing data, and performing research. (Klucevsek, 2017)

2.5. Review of Previous Study

As the comparison of this research, here some research was done about information literacy. First research was done by Siti Husaebah Pattah (Pattah, 2014) with title *"Literasi Informasi: Peningkatan Kompetensi dalam Proses Pembelajaran"*. According to Pattah, "Academicians are expected to be information literate. They should use and evaluate information resources, especially from the internet in any kind of learning process." She added that colaboration between lecturer and library should be held as an effort to improve information competency in the learning process.

Other study of information literacy was studied by Kristin Klucevsek who thinks that “to achieve higher science literacy, both students and the public require discipline-specific information literacy in the sciences. Scientific information literacy is a core component of the scientific process.” (Klucevsek, 2017)

Both study above was explained about information literacy research. That is similar with reasearch that will be done, especially study of information literacy in higher education. The differences among the two previous studies and this study are the point of view of the problem. If the research that conduct by Pattah explained information literacy from the point of view of library as service providers. Meanwhile Klucevsek’s research discussed the importance of information literacy in writing scientific papers, especially in higher education. While this study will find out what difficulties students experience in information literacy which causes high similarities in their thesis plagiarism check.