Information Literacy Analisys of Primary School Students

Farida Nur Kumala[1], Dwi Agus Setiawan[1], Nury Yuniasih[1], Dyah Triwahyuningtas[1], Prihatin Sulistyowati[1]

[1]Universitas Kanjuruhan Malang, Malang, Indonesia

Email: faridankumala@unikama.ac.id [*]

ABSTRACT

The purpose of this study was to analyze information literacy of primary school students in Malang. 725 students of fifth grade were involved in this study as respondents. This study used a measurement test sheet of students' information literacy based on the indicators of information literacy suggested by UNESCO and OECD consisting of 6 indicators. The data from the literacy test were then analyzed using descriptive quantitative analysis technique. Based on the research, it can be concluded that the average information literacy of the students in 18 primary schools in Malang for the access and retrieve information from the text indicator of 6.72; addressing the information read indicators amounted to 6.50; integrate information read by 4.71; recover text 4.46; communicating has an average of 4.10; and reflecting on the text and combining her experience to an average of 4.04. Based on the average value of all indicators, a score of 5.09 which can be categorized as information literacy of students is quite available with the category still in the functional stage. Information literacy is useful for children in knowing, understanding and filtering the information obtained so that children can interpret and use information wisely.

INTRODUCTION

The development of information technology is no longer merely an evolution, but has become a revolution which is amazingly developing (Septiyantono, 2014). The development of technology in the field of computing, information and communication causes more information. Based on the data of APJII, internet users in Indonesia reached 171.17 million people or around 68.4% of Indonesia's population consisting of various ages. Based on the survey results (APJII, 2018) presented in Figure 1.
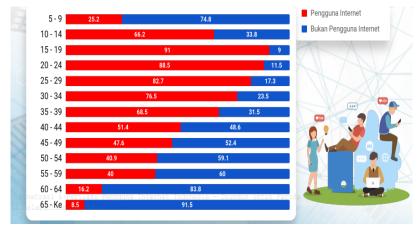
Figure 1. internet user in 2018

In figure 1, it can be seen that the internet users are also among primary students who are on average 7- to 12 years old. However, the data are somehow pathetic since the majority of the students (85-90%) use their smartphone to watch videos and play games and only few students (10-15%) using their smartphone for learning (Kumala et.al, 2018). In line with the above assertions, APJII states that the internet has been used to communicate by 24.7%, play social media by 18.9% and find job by 11.5% and others. Many of them are children who are not able to use the internet wisely yet.

This will affect the children's motivation and reading ability. This short assertion is supported by the data of UNESCO in 2006 stated that the literacy rate in Indonesia is still relatively low that is, 0.001% and ranked 60th out of 61 countries in reading interest (Central Connecticut State University, 2016). Furthermore, Gipayana (2004) states that a number of survey data from (IEA) about reading and writing ability of Indonesian children is known as low category that is only 50% of primary school students of VI grade in six provinces under the Primary Education Quality Improvement Project (PEQIP) can write.

This situation can lead to the misuse of technology resulting the emergence of several social cases (Sutopo and Prasetyo, 2018) such as the decreasing communication in the family, decreasing children's learning motivation (Putri et.al, 2016), reducing the morals of adolescents (Agusliato, 2017), and increasing delinquency among adolescents and children (Aldila, 2016). This can be caused as the children do not have enough information literacy so that they cannot fully receive information.

Information literacy can be interpreted as a person's ability to read and write something that is talked about, heard, and expressed (Septiyantono, 2014). Pendit (in Nurohman, 2014) states that the term of information literacy is defined as the ability to recognize information needs to solve problems, develop ideas, ask important questions, use various information gathering strategies, and determine information that is suitable, relevant and authentic. Based on the assertions above, information literacy is very essential to be used by educational components and one of them is students. According to (Saad in Nurohman, 2014) said that information literacy is the main driver of personal empowerment and student freedom to learn. Information literacy can also develop the ability to read and produce writing (Nurdiyanti, 2010). Therefore, the understanding of information literacy should be conveyed to students from the early age since it will make the information literacy can be achieved optimally by the students.

Information literacy is identified to measure the ability of students to access, organize, use information in the learning process as problem-solve, make formal or informal decisions in the context of learning in education as states by (Bruce, 2002) regarding measurement of information literacy based on the educational view that is, "information literacy defines as the ability to access, evaluate, organize and use information in order to learn, problem-solve, make decisions in formal and informal learning contexts in educational settings". According to UNESCO in the Information for All Program (2008) states that information literacy measures the person's ability to: 1) be aware of information needs; 2) find and evaluate the quality of information obtained; 3) save and rediscover information; 4) create and use information ethically and effectively; 5) communicate the knowledge. Information literacy is also defined as how to access, organize, evaluate, use, and meet information needs, as well as how to utilize information. The most important thing that makes information literacy necessary is one's need for continuous and independent learning skills (Septiyantono, 2014).

Information literacy also has the aim to help someone to meet the information needs for their lives, one of which is in educational field. According to UNESCO (2005) states that literacy provides someone's ability to analyze information as a user of information and become a producer of information for them selves. UNESCO also states that information literacy has some purposes including: 1) giving someone the skills to be able to access and obtain information about health, education, and the environment; 2) directing them in making appropriate decisions regarding their lives; 3) having more responsibility for their education. In other words, information literacy is very useful to make decisions and become a learner in the information era.

The importance of literacy causes the need to conduct an analysis of student literacy skills. Thus far, the measurement of literacy has been carried out by several researchers including measuring information literacy at universities (Woitte & Mccay, 2019) (Miller, 2018) primary school students in Pakistan (Hina & Webber, 2019) chemical literacy (Thummathong & Thathong, 2018); digital literacy (Porat, Blau, & Barracks, 2018); teacher literacy (Andrade, 2019); health literacy (Kampouroglou et al., 2019); (Friis, Lasgaard, Hauge, & Duncan, 2019); (Erdei, Barth, Fedor, & Takács, 2018); (Csima, Fináncz, Nyitrai, & Podráczky, 2018); ICT literacy (Abdulteeef & Khateeb, 2017).

METHODOLOGY

This study used descriptive quantitative method and conducted in 18 elementary schools around Malang including: SDN Tanjung Sekar 03, SDN Tanggul Wulung 02. SDN Polowijen 02, SDN Kedung Pendaringan, SDN Ampeldento 01, SDN Tunggul Wulung 01, SDN Girimowy 02 SDN Gadang 03, SDN Kedungrejo 01, SDN Turi Rejo 05, MIT Ar Roihan Elementary School, Anak Shaleh Elementary School, SD Lab UM, SDN Gondanglegi Kulon 01, SDN Kebonsari 03, SDN Sumberpasri 03, SDN Sumberpasir 01, SDN Sumberpasir 02, SDN Wonorejo SDN 01. 725 students of fifth grade were involved as the participants of the study. This study used tests to measure the literacy abilities of the students. The following table I depicts in detail the students' reading literacy indicator.

Table 1. The Indicator of Students' Reading Literacy

Variable	Indicator	Sub Indicator
Reading Literacy	Accessing and retrieving information from text	Looking for the right information Choosing the right information Gathering the right information
	Integrating information read	Understanding part of the text Drawing a conclusion
	Interpreting the information read	Finding assumptions of the text Finding implications of the text
	Reflecting the text and connecting with everyday life	Linking information from the text with the experience ever gained
	Evaluating the text	Assessing the true message contained in a text
	Communicating	Delivering clearly the message or information from the text that has been read

The data were analyzed using descriptive quantitative analysis technique that is, analyzing the data by describing the collected data as it is without intending to make conclusions that apply in general. The results of the data obtained will be analyzed and calculated using the students' literacy assessment formula. The following is the formula of students' literacy assessment.

$$Assesment = \frac{total\ score\ obtained}{the\ total\ number\ of\ ideal\ scores\ in\ 1\ item} X100 \ldots\ldots\ldots(1)$$

The calculation results can be given meaning and be decided using the student's literacy criteria as shown in table 2.

Tabel 2. Student Literacy Criteria

Score	Criteria	Category
75 – 100	High	Epistemic
50 – 75	High Medium	Informational
25 – 50	Medium	Fungsional
0 – 25	Low	Performatif

Sumber: Wells (1987)

RESULT AND DISCUSSION

The following table 3 portrays in detail results of the students' information literacy from 18 primary schools in Malang with a total of 725 students. This study used the indicator of students' information literacy suggested by UNESCO. These indicators include: 1) accessing and retrieving information from the text; 2) integrating information read; 3) interpreting the information read; 4) reflecting the text and relating it to everyday life; 5) evaluating text; 6) communicating. Based on the results of this study, it can be described from the 6 indicators measured, the highest indicator is accessing and retrieving information from the text by 6.72; and followed by interpreting the information read by 6.50; integrating information read by 4.71; evaluating text by

4.46; communicating has an average value of 4.10; and reflecting the text and linking it with everyday life has an average value of 4.04. Based on the average value of each indicator, it can be concluded that the average value of students' information literacy is still low since there are still many indicators that have an average value of 4. In other words, the average of all data is only 5.09. The results on each indicator can be described as follows. In Tabel 3.

Tabel 3. Student information Literacy

No	Elementary School	Indicators						Everage
		1	2	3	4	5	6	
1	A	7,00	6,58	8,90	6,98	7,35	7,00	7,30
2	B	6,19	6,61	8,36	5,84	7,95	6,11	6,84
3	C	5,44	5,03	8,00	4,11	5,83	7,22	5,94
4	D	6,68	2,89	6,29	1,79	1,54	1,46	3,44
5	E	8,54	6,00	8,69	3,69	1,85	3,62	5,40
6	F	7,69	6,52	9,83	4,31	2,62	3,48	5,74
7	G	4,83	4,03	5,68	5,00	3,73	3,82	4,52
8	H	3,92	4,65	3,00	2,73	3,76	6,81	4,14
9	I	6,42	4,38	3,65	2,75	6,46	4,83	4,75
10	J	6,05	5,09	8,45	3,95	7,86	3,50	5,82
11	K	7,42	6,63	6,70	2,33	4,22	2,51	4,97
12	L	6,01	5,12	6,56	3,97	3,91	3,19	4,79
13	M	7,11	4,11	4,69	3,538	4,34	3,77	4,59
14	N	8,62	5,48	6,34	5,4	6,16	4,6	6,10
15	O	7,57	3,3	5,52	3,85	4,3	3,67	4,70
16	P	7,26	2,37	5,32	4,03	1,25	2,42	3,78
17	Q	6,2	1,98	4,85	4,1	2,75	2,45	3,72
18	R	8,012	4,06	6,17	4,3	4,35	3,35	5,04
	Rata-rata	6,72	4,71	6,50	4,04	4,46	4,10	5,09

(Source: Author, 2019)

1. The first indicator is accessing and retrieving information from reading material. It can be seen that only 5 out of 18 primary schools included in high criteria or epistemic, there are 11 out of 18 primary schools included in good criteria or informational, and there are 2 out of 18 primary schools included in the criteria of sufficient or functional. This indicator requires skills in accessing information obtained from reading material to find information. This is quite easy for primary school students to find the information needed. According to Breivik in (Septiyantono, 2014) states that the ability needed to access information is to determine what strategies and techniques are appropriate for accessing the information needed. Short assertions above are in line with Pattah (2014) who states that the ability to look for and access information is to develop appropriate search techniques and use information and communication technology.

2. The second indicator is integrating information. There are 9 out of 18 primary schools included in good criteria or informational, there are 7 out of 18 primary schools included in the criteria of sufficient or functional, and there are 2 out of 18 primary schools included in low criteria or performative.

   In integrating information read by students, students are required to understand information and draw conclusions. In other words, they have an understanding in reading. The ability to understand reading requires thinking and reasoning, so that students can draw an outline or conclusion of reading material. Supinah (in Samniah, 2016) states that understanding information from reading material is the capture of sharper and deeper ideas, so that there is a distinct satisfaction after reading the text. Maintaining the content of text requires reasoning and logic so that students can understand the meaning conveyed in the text read and can draw conclusions (Laily, 2014).

3. The third indicator is interpreting the information read. There are 6 out of 18 primary schools included in high criteria or epistemic criteria, there are 8 out of 18 primary schools included in good criteria or informational, and there are 4 out of 18 primary schools categorized as criteria of sufficient or functional. In facilitating information, students must determine the assumptions and implications of reading material. Determination of these assumptions and implications requires students to estimate and know the interrelationship of a matter contained in reading material (Well, 1987).

4. The fourth indicator is reflecting the text and relating it to everyday life. There are 4 out of 18 primary schools that are included in good criteria or informational, there are 12 out of 18 primary schools included in criteria of sufficient or functional, and there are 2 out of 18 elementary schools included in low criteria or performative. In this indicator, students are required to assess the true message contained in reading material. The true message can be seen if students are able to understand what is read, so students can draw conclusions and assess the messages contained in reading material. According to Ellis (in Ampini, 1998) states that the ability to understand reading material as a cognitive work involving a set of complex processes, including processing concepts in memory that is working, making the essence of reading material, and making conclusions.

5. The fifth indicator is evaluating text. There are 2 out of 18 primary schools included in high criteria or epistemic, there are 4 out of 18 primary schools classified as good criteria or informational, there are 9 out of 18 primary schools classified as criteria of sufficient or functional criteria, and there are 3 out of 18 primary schools included in low criteria or performative. In communicating, students must be able to clearly convey the message or information from the text that has been read. The ability of communicating aims to familiarize someone in finding something needed in the text and disseminating it to others to obtain information. For primary students, delivering messages or information in class is a scary thing. Students tend to be ashamed to speak and express a message, but it is possible that primary students can also communicate well.

6. The sixth indicator is communicating. There are 4 out of 18 primary schools included in good criteria or informational, there are 13 out of 18 primary schools that are included in the criteria of sufficient or functional, and there are 1 out of 18 primary

schools included in low criteria or performative. This indicator requires students to reflect the text and relate information obtained to the experiences they have.

Based on the indicators of information literacy, it can be concluded that in order to access, interpret, integrate, communicate, evaluate, and reflect, students must truly understand and be able to implement information literacy. Breivik (1991) suggests that information literacy becomes an important thing in educational process and the process will run well.

CONCLUSION

Information literacy can ease someone to create new knowledge and relate it to previous knowledge that has been had. They can also filter information and interpret information well, So that students are able to take decisions and solutions when facing problems

REFERENCES

Abdulteeef, A., & Khateeb, M. Al. (2017). *Measuring Digital Competence and ICT Literacy : An Exploratory Study of In-Service English Language Teachers in the Context of Saudi Arabia. 10*(12), 38–51. https://doi.org/10.5539/ies.v10n12p38

Aguslianto. 2017. *Pengaruh sosial media terhadap akhlak remaja.* Universita islam negeri ar-raniry darussalam. Banda Aceh.

Aldila, Ajeng, N. 2016. *Pengembangan bahan ajar IPA berbasis ensiklopedia pada materi struktur dan fungsi bagian tumbuhan kelas IV SDN Tanjung Kertosono.* Universitas Islam Negeri Maulana Malik Ibrahim. Malang

Ampuni, S. 1998. Proses Kognitif dalam Pemahaman Bacaan. *Jurnal Buletin Psikologi, Tahun VI, No. 2*

.Andrade, H. L. (2019). *Teacher assessment literacy : A three-dimensional model. 84*, 128–138. https://doi.org/10.1016/j.tate.2019.05.003

APJII. (2018). *Penetrasi & profil perilaku pengguna internet indonesia.*

Breivik, P.S. 1991. *Literacy in an Information Society.* [http://www.*libraryintruction.com/informationliteracy2.htm*]

Breivik, P. S. 2005. 21st Century Learning and Information Literacy. University Library, 2005.

Bruce. C.S. 2002. *Information Literacy as A Catalys for Educational Change: A Background Paper.* White Paper prepared for UNESCO, the U.S. National Commossion on Libraries and Information Science, and the National Forum on Information Literacy, for use at the Information Literacy Meeting of Experts, Prague, The Czech Republic. From *http://www.nclis.gov/libinter/infolitcof&meet/papers/bruce-fullpaper.pdf*

Cholifatur, F. 2014. *Pengaruh Penggunaan Ensiklopedia Bahan Praktikum Terhadap Motivasi dan Hasil Belajar Siswa Kelas XI MAN Lab UIN Yogyakarta:* Yogyakarta.

Chusnul, C.D. 2016. *Pengembangan Bahan Ajar Ensiklopedia Sosial-Budaya Indonesia*

Pada Mata Pelajaran IPS Kelas VII di MTs Negeri Malang III. Universitas Islam Negeri Maulana Malik Ibrahim. Malang

Csima, M., Fináncz, J., Nyitrai, Á., & Podráczky, J. (2018). ScienceDirect [1 _ TD $ IF] Research on the health literacy of professionals working in early childhood education. *KONTAKT*, *20*(4), e356–e362. https://doi.org/10.1016/j.kontakt.2018.10.002

Erdei, R. J., Barth, A., Fedor, A. R., & Takács, P. (2018). Measuring the factors affecting health literacy in East Hungary – Health literacy in the adult population of Nyíregyháza city. *Kontakt*, *20*(4), e375–e380. https://doi.org/10.1016/j.kontakt.2018.08.007

Friis, K., Lasgaard, M., Hauge, M., & Duncan, P. (2019). Patient Education and Counseling Health literacy , multimorbidity , and patient-perceived treatment burden in individuals with cardiovascular disease . A Danish population-based study. *Patient Education and Counseling*. https://doi.org/10.1016/j.pec.2019.05.013

Gipayana, Muhana. 2004. *Pengajran Literasi dan Penilaian Portofolio dalam Konteks Pembelajaran Menulis di SD.* Jurnal Ilmu Pendidikan. Jilid 11 No. 1, Hal 59-70

Gipayana, M. 2011. *Pengembangan Model Sudut Baca, Pajangan, dan Partisipasi Orang Tua Siswa untuk Meningkatkan Mutu Pembelajaran Membaca dan Menulis di SD*. Universitas Negeri Malang: Malang.

Hina, S., & Webber, S. (2019). Library and Information Science Research Mapping the state of information literacy education in primary schools : The case of Pakistan. *Library and Information Science Research*, *41*(2), 123–131. https://doi.org/10.1016/j.lisr.2019.04.006

Kampouroglou, G., Pavlopoulou, I., Drakou, E., Kosmopoulos, M., Kouvas, N., Tsagkaris, S., … Tsoumakas, K. (2019). *Parental anxiety in pediatric surgery consultations : the role of health literacy and need for information*. (xxxx). https://doi.org/10.1016/j.jpedsurg.2019.07.016

Kumala, N.F, et.al. 2018. Mobile Phone-Based Invertebrates Encyclopedia for Elementary School Students. *International Journal of Engineering & Technology, 5 (x) (2017)*

Laily, I. F. 2014. Hubungan Kemampuan Membaca Pemahaman dengan Kemampuan Memahami Soal Cerita Matematika Sekolah Dasar. *Jurnal EduMa, Vol. 3 No. 1*

Miller, S. D. (2018). The Journal of Academic Librarianship Diving Deep : Re fl ective Questions for Identifying Tacit Disciplinary Information Literacy Knowledge Practices , Dispositions , and Values through the ACRL Framework for Information Literacy. *The Journal of Academic Librarianship*, (February), 0–1. https://doi.org/10.1016/j.acalib.2018.02.014

Nurdiyanti, E., dan Suryanto, E. (2010). Pembelajaran Literasi Mata Pelajaran Bahasa Indonesia pada Siswa Kelas V Sekolah Dasar. *Jurnal Pendagogia, Jilid 13, No. 2, Hal. 115-128*

Nurmansyah. 2018. *Pengembangan Bahan Ajar Berbasis Ensiklopedia IPS pada Materi Hindu, Budha untuk Meningkatkan Motivasi Peserta Didik Kelas V di MI Mambual Ulum Pakis, Malang*. Skripsi Universitas Negeri Islam Maulana Malik Ibrahim: Malang.

Nurohman, Aris. 2014. Signifikansi Literasi Informasi (*information Literacy)* dalam Dunia Pendidikan di Era Global. *Jurnal Kependidikan, Vol. II No. 1*

Pattah, S. H. 2014. Literasi Inforormasi: Peningkatan Kompetensi Informasi dalam Proses Pembelajaran. *Jurnal Ilmu Perputakaan Kearsipan Khizanah Al-Hikmah, Vil.2 No. 2, hlm 117-128.*

Porat, E., Blau, I., & Barak, A. (2018). SC. *Computers & Education*. https://doi.org/10.1016/j.compedu.2018.06.030

Putri, Nurwati dan Budiarti, 2016. Pengaruh Media Sosial Terhadap Perilaku Remaja. *PROSIDING KS: RISET & PKM. VOLUME: 3. NOMOR: 1.*

Samniah, N. 2016. Kemampuan Memahami Isi Bacaan Siswa Kelas VII MTs Swasta Labibia. *Jurnal Humanika Vol. 1 No.16.*

Septiyantono, Tri. 2014. *Konsep Dasar Literasi Informasi.* Universitas Tebuka, 1 (372.34), 1-77, 2014.

Sutopo dan Prasetyo. 2018. Industri 4.0: Telaah klasifikasi Aspek Dan Arah Perkembangan Riset. *Jurnal Teknik Industri, Vol. 13, No. 1, Januari 2018*

Thummathong, R., & Thathong, K. (2018). Kasetsart Journal of Social Sciences Chemical literacy levels of engineering students in Northeastern Thailand. *Kasetsart Journal of Social Sciences*. https://doi.org/10.1016/j.kjss.2018.06.009

UNESCO. 2014. *Harnessing the Potential of ICTs for Literacy Teaching and Learning Effective Literacy and Numeracy*. Programmes Using Radio, TV, Mobile Phone, Tablets, and Computers.

Woitte, S., & Mccay, K. (2019). The Journal of Academic Librarianship How Cyclical Assessment Can Guide Information Literacy Instruction to Best Serve First-year Students. *The Journal of Academic Librarianship*, (January), 1–3. https://doi.org/10.1016/j.acalib.2019.01.006