P-ISSN: 2808-0467
E-ISSN: 2808-5051
Homepage: https://iss.internationaljournallabs.com/index.php/iss

21ST CENTURY TECHNOLOGY LITERACY IN EFL TEXTBOOK: A NEED ANALYSIS

Elok Nur Affah Al Akromi[1], Elvira Fitriyanti[2]
[1]*Faculty of Tarbiyah and Teacher Training, Islamic State Institute of Syekh Nurjati Cirebon, Cirebon, West Java, Indonesia*
[2]*Department of Digital Business, Politeknik Siber Cerdika Internasional, Cirebon, West Java, Indonesia*
[1] *eloknuraffah44@gmail.com* [2] *elvirafitriyanti@gmail.com*

PAPER INFO

Received: *December 2022*
Revised: *January 2023*
Approved: *January 2023*

ABSTRACT

Background: Despite living in the modern era, the level of Indonesian students' technology literacy is still low, especially in the stage of junior high school.
Aim: This research attempts to investigate what 21st century English as Foreign Language (EFL) textbook need in order to develop students' technology literacy since the book is the most recognized medium for learning and being technology literate will also help students learn English better.
Method: The textbook chosen for this research is the one published by the Ministry of Education, When English Rings a Bell, for grade 8 of junior high school. As for the data, they were taken from every chapter's directions. They were analysed by implementing content analysis to detect the presence of technology literacy indicators in the textbook's directions.
Findings: Based on the results of the analysis, EFL textbook directions need the author's initiative to modify them so that they can fit the ICT development indicators by adding more sentences related to applying presentation software usage and sharing information through online platforms. It is because the more literate the students in operating, accessing, managing, integrating, and evaluating modern technologies, especially ICT, the bigger their chances become in learning English successfully.

KEYWORDS *technology literacy, EFL textbook, junior high school; 21st century*

© The author(s). This work is distributed under the terms of the Creative Commons Attribution-ShareAlike 4.0 International License (CC BY-SA 4.0)

INTRODUCTION

Technology, as the manifestation of scientific studies and applied sciences (Hornby, 1989), has been one of the main aspects to grasp in 21st century era. In regard to the statement, for Indonesia, despite possessing a large number of internet users which is 171 million people, only a few of them are actually digital literate (Kamaliah, 2020). Further to her report, Kamaliah quotes from Andi Faisa Achmad that Indonesia ranks as the 56th from 63 countries according to Global World Digital Competitiveness Index. This means that the level of technology literacy in this country is still considerably low since being technology literate is the foundation of digital literacy.

On the other hand, technology literacy is required by all sectors in this era, including education. Modern technology related to education is among the most highlighted forms of technology. It basically serves as the means of transferring knowledge from teacher to students. In the earlier period, teachers utilised a blackboard and a chalk in explaining certain lesson to students but now that technology has developed, teachers prefer to use their PCs and projectors then, for example, present some PowerPoint slides. Students, too, seem to be more excited when it comes to digital display in their learning session. However, not all of teachers and

students are aware of this useful side of technology as many of them still have no idea how to work with modern tools or digital platforms. This phenomenon is also assisted by the fact that textbooks rarely provide any information regarding to the use of modern technology.

Further to the last bit of phenomenon mentioned in the previous paragraph, textbooks are supposed to standardise directions and lead to various learning resources (Cunningsworth, 1995). Regarding to this modern era, it is equally essential for both teachers and students to receive some technology literacy stimulus from textbooks since most of them remain depending on those books. For example, textbooks may supply directions for teachers to use projectors in the classroom and display some video so that students can watch and listen to the characters' conversation. In this case, in the field of English Foreign Language (EFL) learning, this type of direction may be useful since English proficiency requires 4 skills: Listening, speaking, reading, and writing (Amelia, 2019).

It is possible for teachers to improve students' English skills through the use of modern technology. However, not all textbooks guide their users to do so. Meanwhile, regarding to the application of 2013 Curriculum in Indonesia, students are encouraged to be more autonomous at almost all points in the learning process which means students have to discover their own learning sources because Andiyanto states that in this era, teachers are more of a facilitator than a constant knowledge provider (2017) (Though according to Jaedun et al. (2014) they are still the front-liners of education quality improvements. Moreover, the removal of "Information and Communication Technology" (ICT) subject from Indonesian schools' list of main subjects in 2013 due to the implementation of 2013 Curriculum incited critics from everyone, including experts such as Kusumah (2018) who states that the subject is essential in improving the country's human resource.

Despite being surfaced again in 2019 with a new name "Informatika," some still think that its application is not optimal yet, as reported by CNN Indonesia (2020). Hence, this research aims to investigate what 21st century textbooks for EFL learning need in order to develop technology literacy, specifically in Indonesia, referring to the Ministry of Communication and Information Technology (Kominfo)'s programme which is called "National Digital Literacy Movement" which was officially released on April 16, 2021 (Setu, 2021), as well as supporting the plan to implement "Informatika" subject in Grade 8 of junior high school (Ramadhan, 2020). It is also based on ITEA's (International Technology Education Association) statement that even though study of technology is sometimes a separate subject, it cannot be isolated from the application of other subjects in the curriculum (ITEA, 2007).

During the research, the researcher refers to several previous studies conducted by other researchers in the same field. The main areas are technology literacy for special education (Pandya & Ávila, 2016), technology literacy for higher/adult education (Sommer & Ritzhaupt, 2018; Amua-Sekyi & Asare, 2016, Lestari & Santoso, 2019, Julia & Isrokatun, 2019,), technology literacy for teaching (Santoso & Lestari, 2019), technology literacy for vocational high school (Herman, Maknun, Barliana, & Mardiana, 2018), technology literacy for junior high school (experimental) (Mardiyya, Anwar, & Chandra, 2019), technology literacy for senior high school (Yuangga, Jasmani, & Sunarsi, 2018), and *When English Rings a Bell* textbook analyses (Lisa, 2018, Pratiwi, 2017, Apriyani & Robiasih, 2019, Putri & Komariah, 2018, Ardini, 2016, Sitorus et. al. 2021). However, not all of them cover the need for

technology literacy development in 21st century EFL textbooks. They still have some gaps to fill in with other studies.

This research aims at answering 2 questions: 1) What are the aspects of technology literacy in EFL textbook directions? 2) What do 21st century EFL textbooks for 8th grade students need in order to develop technology literacy through EFL textbook directions?

METHOD

This research is purposed to be qualitative. The approach allows researchers to understand people's interpretation of their experiences, how they describe them, and the meaning they attribute to the experiences (Merriam, 2009). The subject of this research is an EFL textbook entitled *When English Rings a Bell* for 8th grade of junior high school.

Since there is no explicit source of junior high school students ICT literacy development from any source, here are some indicators that the researcher derive different sources to match their need through the use of textbook, specifically its directions: 1) Students' understanding of ICT's benefits, disadvantages, as well as challenges in information technology (Which includes: 1) Students use word processors for basic tasks such as text entry, editing text, formatting text and printing, and 2) Students demonstrate the use of presentation software), and 2) Students' use of ICT knowledge in getting, processing, arranging, distributing, and keeping information (Which includes: 1) Students use the Internet to access information, especially related to materials discussed in the learning process, and 2) Students use online platforms to share obtained information). These indicators are the ones the researcher used during the research.

The steps of content analysis (Bengtsson, 2016) are: 1) Planning (This step includes determining aim, sample and unit of analysis, method of data collection, and practical implication. This step is already enclosed in the first chapter); 2) Data Collection (The data are collected from the selected EFL textbook for 8th grade students of junior high school entitled *When English Rings a Bell*); 3) Data Analysing (It includes decontextualisation, recontextualisation, categorization, and compilation. The researcher decontexted the data from its original source and only took the directions from each chapter of the book, recontexted the data by re-reading them and highlighting the parts that fit the available indicators, categorising each datum based on its own category (code), and compiled all the extracted data into a narration); and 4) Creating a report and presentation of the result (After conducting the analysis, the researcher finalises the research by making it as an official report which presents the results systematically.

RESULTS AND DISCUSSION

The following table shows the results of the research.

Table 1. Indicators of Technology Literacy Discovered in *When English Rings a Bell* for 8th Grade of Junior High School

Indicators	Sub Indicators	Results
Students' Understanding of ICT's Benefits,	Students Use Word Processors for Basic Tasks	"We will work in groups. We will write about three people in our

Disadvantages as Well as Challenges in Information Technology (BN)	Such as Text Entry, Editing Text, Formatting Text, and Printing	class. We will tell what they can and cannot do in English, music, sports, housework, and others. Here are what we will do. First, we will study the example carefully. Second, we will use the form below to write down what the three people can do and cannot in the areas. Third, we will use the data to write about each of them. **We will handwrite it or type it on a computer**. Then, we will put our works on the wall of the classroom. We will answer questions from people who visit our works. We will use a dictionary. We will spell the words and use the punctuation marks correctly. While we are writing, we will say the sentences loudly, clearly, and correctly. If we have any problems, we will go to our teacher for help."
		"We will work in groups. We will write about each one of us in our group. We will make a list of 5 things that we can do but we will not do, and 5 things that we can do and we will do. Here are what we will do. First, we will study the example carefully. Second, we will help each other to identify what we can do but will (not) do. Third, **each one of us will handwrite the work or type it on the computer**. Then, we will put our works on the wall of the classroom. We will answer the question form people who visit our works. We will consult a dictionary. We will spell the words and use the punctuation marks correctly we will say the sentences loudly, clearly, and

	correctly. If we have any problems, we will ask our teacher for help."
	"We will look closely into the previous conversations again. We will also read the speaker's sentences on the next page. This time we will learn how the speakers tell or invite other people to do something. Here are what we will do. We will work in groups. First, we will read each statement carefully. Second, we will study the examples carefully. Third, we will find the sentences in each conversation that tell or invite other people to do something. Then, we will put each one of them into the table of analysis. Each one of us will handwrite it in our notebooks, or **type it on the computer**. Finally, in groups we will present, not read, the list to each other orally. We will spell the words and use the punctuation marks correctly. We will say the sentences loudly, clearly, and correctly. If we have any problems, we will ask our teacher for help."
	"We will work in groups. We will write about the conditions of our roads in our town/village, by saying what there are there. Here are what we will do. We will work in groups. First, we will go out to observe our roads. We will make a list of the things/people that we see and the number or the amount of each thing/person. Second, we will work together what to say about what there are on the roads. Third, **each one of us will handwrite the work or type it on the computer**. Then, we will display our works on

		the wall of the classroom. We will answer questions from people who visit our works. We will use a dictionary. We will spell the words and use the punctuation marks correctly. We will say the sentences loudly, clearly, and correctly. If we have any problems, we will go to our teacher for help."
		"We will look closely at the descriptions of the animals. We will use a table to analyze the information about them. Here are what we will do. We will work in groups. First, we will study the examples carefully and copy them in our notebook. Second, we will discuss and fill in the table with the information of the animals, like the examples. Finally, **every one of us will handwrite the analysis in the notebook or type it with a computer**. We will use a dictionary. We will spell the words and use the punctuation marks correctly. We will also say each word loudly, clearly, and correctly. If we have any problems, we will go to our teacher for help."
	Students Demonstrate the Use of Presentation Software	-
Students' Use of ICT Knowledge in Getting, Processing, Arranging, Distributing, and Keeping Information	Students use the Internet to access information, especially related to materials discussed in the learning process	"We will read the lyrics of the song below. If we want to, **we can download the song from the internet**. This is a very good song. The message is that we can make the world better because we care. Here are what we will do with the song. First, we will copy the song in our notebooks. Second, we will listen carefully to our teacher reading the lyrics, meaningfully.

	Third, we will repeat the lyrics after him/her, line by line. Finally, in groups we will learn to read the lyrics to each other, meaningfully too. We will say the sentences loudly, clearly, and correctly."
	"There are many animals around us. We will find three different animals and describe them one by one. Here are what we will do. First, we will study the given example about the rabbit. Second, in the group we will discuss and decide three animals to write about. **We will find good pictures of the animals**. Third, by using the table of analysis, we will plan what to write about the animals, one by one. We will put into each column a very relevant piece of information about each animal. Finally, we will use the sentences in the table to make a good paragraph about each of the animals. We will use a dictionary. We will spell the words and use the punctuation marks correctly. We will also say each word loudly, clearly, and correctly. If we have any problems, we will go to our teacher for help."
	"We will read the lyrics of a song. If we want, **we can download the song from the internet**. Here is a very good song about friendship and togetherness. Here are what we will do. First, we will copy the song in our notebooks. Second, we will listen carefully to our teacher reading the lyrics, meaningfully. Third, we will repeat the lyrics after the teacher, line by line. Finally, in groups, we will learn to

		read the lyrics to each other, meaningfully too. We will say the sentences loudly, clearly, and correctly."
	Students use online platforms to share obtained information	-

Discussion

The use of word processors keeps increasing gradually. People use products such as Microsoft Word, WordPad, and Kingsoft Writer to help them input, edit, format, and do other functions to their texts. They can be used on computers, phones, and tablets. Some processors are proprietary while some others are free and open-sourced. However, the most widely used, especially in Indonesia, is Microsoft Word. It is because the product is the easiest to access and used among the list of existing word processors. This product is apparently familiar for students as well.

As for presentation software, people are mostly familiar with PowerPoint by Microsoft. This kind of software is mostly used for business presentation but it is also applicable for educational purposes. Both students and teachers use it to present their works in front of the classroom. Their use of the software is affected by various features provided there such as colourful templates and interesting transitions. The features can help deliver their presentations better and more attractive.

Prior to the implementation of 2013 Curriculum, students were taught a lesson called TIK, the abbreviation of *Teknologi Informasi dan Komunikasi* which is the Indonesian term of ICT. Students were taught how to operate word processor, spreadsheet, even presentation software too. However, by the time the curriculum was manifested, this lesson was put aside due to consideration that being ICT literate is a must and compulsory was no longer required for it is something people in this era are capable of learning on their own about.

The downside of TIK removal was inequality that took place in school education. During the time when the lesson was still in the vicinity of learning process, all students were granted access to computers in school's computer lab under their teacher's supervision. They were given an opportunity to practice ICT functions without having to be afraid of not being able to catch up with the lesson due to no possession of any computer. However, with the removal, students could no longer implement procedures of ICT operation, including word processors and presentation software. In addition, the 'reincarnation' of TIK, Informatika, is judged as not compatible yet in improving students' technology literacy.

Since the most familiar technology in this country is ICT, students are expected to master how to access, operate, manage, and assess ICT tools. This knowledge can be manifested in EFL textbook through its directions.

Through the analysis that the researcher conducted, it is revealed that the directions do not guide students in demonstrating the use of presentation software. Hence, the directions need to be modified into fitting the use of presentation software as well. What it takes is the author's initiative to add more directions that allow students to use presentation software. For example,

directions may include some clauses such as "…*type your work on PowerPoint*" or "…*present your work using PowerPoint slides*." In addition, students might need some supervision in creating a digital presentation so teachers have to make sure that they have explained how presentation software works and some basic features of it.

In the case of using the Internet, with the high rate of global information transmission, the use of the Internet becomes necessary. It no longer revolves around transmitting information from one computer to another or from one place to the other. Instead, it aids people in delivering or accessing information from any places around the globe. People may use various search engines and online platforms to maximise the use of the Internet in accessing or delivering information. This, too, might help students in attaining learning sources from the Internet, either from searching activities or from other people who share different information.

Through the analysis that the researcher conducted, based on the available indicators, the directions provided on EFL textbook need to guide students more on the use of online platforms in distributing information instead of merely focusing on accessing it from the Internet because it is a practice to operate ICT tools as well. The directions need the author's initiation to add more lines indicating information distribution such as "…*we can share our greeting cards on our social media account*" or "…*we will post this description of rabbit on our social media account to give information to more people*." In addition, teachers first have to make sure that all of the students have understood how online platforms work and the platforms' features through some explanation, and that all students are using the platforms solely for the purpose of the currently discussed materials during the class.

CONCLUSION

Of all main indicators displayed in this research, each indicator only has 1 sub-indicator fulfilled by the directions provided in the EFL textbook, they are "Students use word processors for basic tasks such as text entry, editing text, formatting text and printing" for the first indicator which is BN, and "Students use the Internet to access information, especially related to materials discussed in the learning process" for the second indicator which is KN.

Based on the analysis, EFL textbook for 8th graders need the textbook authors' initiation to add more directions that allow students to use presentation software. For example, directions may include some clauses such as "…*type your work on PowerPoint*" or "…*present your work using PowerPoint slides*." The author also needs to add more lines indicating information distribution such as "…*we can share our greeting cards on our social media account*" or "…*we will post this description of rabbit on our social media account to give information to more people*."

Future research are expected to emerge regarding this topic. It is because the more advanced technology, the higher the need to catch up on the rapid technological development. Hence, more variables affecting technology literacy, either affecting or defecting it, are expected to be discussed.

REFERENCES

Amelia, M. (2019). Language learning strategies applied by English department students to improve English skills. *Journal of English Language Pedagogy, 4(1),* 35-46.

Amua-Sekyi, E. T., & Asare, P. Y. (2016). A survey of information and communication technology literacy among lecturers. *Information and Knowledge Management, 6*(8), 1-7.

Andiyanto, T. (2017). Peran guru dalam implementasi Kurikulum 2013: Studi pada TK Mentari Kec. Abung Selatan Kab. Lampung Utara. *Elementary, 3*, 73-78.

Apriyani, L. A., & Robiasih, R. H. (2019). Eight grade text book evaluation by Cunningsworth's theory. *Journal of English Language and Pedagogy, 2*(2), 94-103.

Ardini, W. D. (2016). Content analysis of "When English Rings a Bell" an English textbook for eighth grade junior high school students relevancy to curriculum 2013. *Artikel Skripsi Universitas Nusantara PGRI Kediri*, 1-8.

Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *NursingPlus Open*, 8-14.

Cambridge University Press. (2021). *Direction*. Cambridge Dictionary.

CNN Indonesia. (2020, September 23). *Informatika wajib di kurikulum baru, kini belum maksimal*. CNN Indonesia Nasional.

Cunningsworth, A. (1995). *Choosing your coursebook.* Heinemann.

Cutler, L., & Graham, S. (2008). Primary grade writing instruction: A national survey. *Journal of Educational Psychology, 100*, 907-919.

Garton, S., & Graves, K. (2014). *International perspectives on materials in ELT.* Palgrave Macmillan.

Herman, N. D., Maknun, J., Barliana, M. S., & Mardiana, R. (2018). Technology literacy level of vocational high school students. *Advances in Social Sciences, Education and Humanities Research, 299*, 519-522.

Hornby, A. (1989). *Oxford advanced learner's dictionary of current English* (4th Ed). Oxford University Press.

'Ilma, F. (2018). *Higher order thinking skill questions in reading.* UIN Walisongo.

IMD World Competitiveness Center. (2020). *IMD world digital competitiveness ranking 2020.* IMD.

ITEA. (2007). *Standards for technological literacy: Content for the study of technology* (3rd Ed.). ITEA.

Jaedun, A., Hariyanto, V. L., & Nuryadin, E.R. (2014). An evaluation of the implementation of Curriculum 2013 at the building construction department of vocational high schools in Yogyakarta. *Journal of Education, 7(1)*, 14-22.

Julia, J., & Isrokatun, I. (2019). Technology literacy and students practice: Lecturing critical evaluation skills. *International Journal of Learning, Teaching and Educational Reserach, 18*(9), 114-130.

Kamaliah, A. (2020, March 11). *Literasi digital Indonesia ketinggalan jauh di dunia*. detiknet.

Kusumah, W. (2018, February 27). *Mata pelajaran TIK dihapus dalam Kurikulum 2013*. Kompasiana.

Lisa, M. (2018). An analysis of writing material in English textbook "When English Rings the Bell" for eighth grade. *Retain, 6*(1), 78-86.

Mardiyya, B., Anwar, S., & Chandra, D. (2020). STEM - Book on drinking water using 4S TMI models to develop students technology literacy. *Journal of Physics: Conference Series*, 1-7.

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation.* Josey-Bass.

Pandya, J. Z., & Avila, J. (2017). Inequitable variations: a review of research in technology, literacy studies and special education. *Literacy, 51*(3), 123-130.

Pratiwi, E. P. (2017). The analysis of the textbook: "When English Rings the Bell" based on Brian Tomlinson's (2011) principles of materials development for language teaching. [Undergraduate Thesis], Universitas Jember.

Pollington, M., Wilcox, B., & Morrison, T. (2001). Self-perception in writing: The effects of writing workshop and traditional instruction on intermediate grade students. *Reading Psychology, 22*, 249-265.

Putri, M. A., & Komariah, E. (2018). A content analysis of activities in English textbook "When English Rings A Bell". *Research in English and Education (READ), 3*(2), 147-153.

Ramadhan, M. S. (2020, February 18). *Penerapan mapel informatika baka diperluas ke kelas 8 dan 11*. medcom.id.

Reigeluth, & Carr-Chellman. (2009). *Instructional design theories volume III.* Routledge.

Richards, J., & Schmidt, R. (2007). *Longman dictionary of language teaching and appliedlinguistics.* Pearson Education.

Setu, F. (2021). *Menkominfo luncurkan gerakan nasional literasi digital untuk 12,4 juta masyarakat.* Kominfo.

Sitorus, M. M., Silalahi, L. H., Rajagukguk, H., & Saragih, E. (2021). Content analysis of When English Rings a Bell student's textbook. *Indonesian EFL Journal (IEFLJ), 7*(1), 79-88.

Sommer, M., & Ritzhaupt, A. (2018). Impact of the flipped classroom on learner achievement and satisfaction in an undergraduate technology literacy course. *Journal of Information Technology Education: Research, 17*, 159-182.

Sharkey, J., & Brandt, D. S. (2005). Integrating technology literacy and information literacy. In D. Carbonara (Ed.), *Technology literacy applications in learning environments* (pp. 64-74). Information Science Publishing.

Tomlinson, B. (2003). *Developing materials for language teaching.* Continuum.

Trilling, B., & Fadel, C. (2009). *21st century skills: Learning for life in our times.* Jossey-Bass.

UNESCO. (2003). *Developing and using indicators of ICT use in education.* UNESCO Asia and Pacific Regional Bureau for Education.

UNESCO. (2018). *UNESCO ICT competency framework for teachers.* UNESCO.

Ur, P. (1996). *A course in language teaching: Practice and theory.* Cambridge University Press.

Yuangga, K. D., Jasmani, & Sunarsi, D. (2018). The influence of technology determinism and technology literacy on student learning outcome (on MA Daarul Hikmah Pamulang). *Pinisi Discretion Review, 1*(2), 23-30.