How Indonesian Junior High School Students Comprehend the Reading Text? A Digital Media Literacy Utilisation

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Abstract

Digital media is currently very familiar with the students' daily activities. However, as one of school policies, most Junior High Schools in Klaten, including SMPN 5 Klaten, prohibit their students from using digital media, specifically Smartphones, in the learning process. The objective of this present study was to describe the improvement of students' ability in comprehending the reading text through digital media literacy. This research applied Classroom Action Research with its cycles. Each cycle was executed through sets of activities consisting of planning, acting, observing, and reflecting. By involving the eighth graders of SMPN 5 in Klaten, tests, observations, interviews, and document studies were used to obtain the data, and the data were qualitatively and quantitatively analysed. The results showed that the use of digital media literacy could improve the students' ability in comprehending the texts. The improvement was shown by the increase of the percentage of the students obtaining the mastery criteria stated by the school by 22% in pre-cycle, increased to 63% in the first cycle, and 100% in the second cycle. How their ability in comprehending texts improved by the use of digital media literacy is also discussed.

Keywords: digital literacy, digital media, reading comprehension skills, e-learning media

¿Cómo comprenden la lectura de los textos los estudiantes indonesios de la secundaria? Una utilización de la alfabetización de medios digitales

Los medios digitales están actualmente muy familiarizados con las actividades diarias de los estudiantes. Sin embargo, como una de las políticas escolares, la mayoría de las escuelas secundarias en Katlen, incluido el SMP N5 Katlen, prohíbe a sus estudiantes usar medios digitales, específicamente Smartphones, en el proceso de aprendizaje. El objetivo del presente estudio fue describir la mejora de la habilidad de los estudiantes para comprender la lectura del texto a través de la alfabetización de los medios digitales. Esta investigación utilizó la Investigación-Acción en el aula con sus ciclos. Cada ciclo se ejecutó a través de un conjunto de actividades que consistieron en planificar, actuar, observar y reflexionar. Al involucrar a los alumnos de octavo grado de SMPN 5 en Katlen, se utilizaron pruebas, observaciones, entrevistas y documentos de estudio para obtener los datos y los datos se analizaron cualitativa y cuantitativamente. Los resultados mostraron que el uso de la alfabetización en los medios digitales podría mejorar la habilidad de los estudiantes para comprender los textos. La mejora se mostró por el incremento del porcentaje de estudiantes que obtuvieron los criterios de dominio es-

tablecidos por la escuela en un 22%en el pre-ciclo, se incrementó al 63% en el primer ciclo y al 100% en el segundo ciclo. También se discutió como su habilidad para comprender textos mejoró por el uso de la alfabetización de medios digitales.

Palabras clave: Alfabetización digital, medios digitales, habilidades de comprensión lectora, medios de aprendizaje electrónico.

Introduction

The reading ability of Indonesian students at the international level is classified as low, based on the literacy test by PIRLS (Progress in International Reading Literacy Study) in 2011 and the PISA (Program for International Student Assessment) in 2012 (Wiedarti & Kisyani, 2016, Eds.). In this regard, it is necessary to improve students' literacy skills. To that end, the government has made efforts to improve the literacy capability by conducting the National School Literacy Movement (Gerakan Literasi Sekolah – GLS) which is then called the National Literacy Movement (Gerakan Literasi Nasional – GLN). Literacy activities then become part of students' activities in schools.

This article is focused on the students' ability or capability (literacy) in using the digital media in order to enhance their reading interest in comprehending the various texts. We believe that the students' lack of interest in reading would be solved by improving their digital media literacy; knowledge and ability in using or utilising digital media. We do not only define literacy as the ability in writing, reading, and mathematics, but literacy has now a broad definition that refers to the ability or capability in certain area or aspect, including the digital or electronic media use. We hope that their literacy on digital media will become their learning experiences, especially in how they comprehend the texts in various contents and contexts. We hope that the schools would be concerned with providing their students more digital or electronic media of reading to enhance students' interest in reading.

However, it turns out there are still many schools that lack reading materials, what is more digital or electronic reading materials in the context of learning at Junior High School, specifically digital reading materials provided by the schools. For this reason, it is necessary to provide reading materials not only from printed books, but also electronic reading materials obtained through digital media and at the same time "reduce the cost of using printed books" (Medley-Rath, 2018) and the students' familiarity with such media can improve their skills in literacy, especially for comprehending the reading texts (Pischetola, 2011). Digital media requires other tools in the form of internet networks. With the internet network, digital devices such as computers and smartphones can be used. However, Babarinde, Babarinde, & Dike (2017) suggest that "interesting books are still available and accessible to students. In addition, students must find ways to utilise electronic media to read". Things that need to be considered in this regard are the age of the child, because 1-4 year olds prefer to read printed books rather than electronic or digital books, specifically printed picture books (Strouse & Ganea, 2017), likewise for children in grades four and five of elementary school, Halamish & Elbaz (2019) and Kao, Tsai, Liu, & Yang (2016) show that children's reading comprehension is better when reading on paper (improving motivation, understanding, and chromatic concepts) rather than on screen, because reading on the

screen (electronic) can interfere with children's understanding, compared to reading on paper (print).

In addition to the implementation of the GLS programme, in the teaching and learning process, various media have also been used by teachers. Among the various media, there are some that have not yet been utilised, namely digital media while still considering the results of research on the age and use of printed reading material. Moreover, research conducted by Hou, Rashid, & Lee (2017) shows that it is not a matter of reading material; printed or electronic, but on the issue "the extent to which text presentations facilitate or hinder the reader's ability to construct cognitive maps that affect the reading process". Indeed, if it is associated with reading comprehension, children have more significant results when reading on paper, however, if it is associated with preferences then children prefer to read on a digital screen (Dahan Golan, Barzillai, & Katzir, 2018). Digital media is currently very familiar in student life, but in the teaching and learning process has not been widely used and this preference can be utilised. It can be said that in this era, digital media has never been separated from student activities, since they were in elementary school. The familiarity of students with the media can be utilised to improve their skills in literacy, especially in understanding reading texts.

For the implementation of the use of these media, the presence of digital media in schools is crucial. The lack of digital media in schools is also an obstacle in this activity. However, the lack of it can take advantage of smartphones that are currently generally owned by students. Thus, the prohibition on carrying a smartphone needs to be reviewed. As long as the smartphone is used as a learning medium, it can be tolerated while using it to prevent dyslexic use in children (He, et al., 2014). The use of newer technology, such as the internet, can also increase students' interaction with a reading text (Peregoy & Boyle, 2013). The advantage of using media also makes students' knowledge increase. Based on his knowledge of all things (knowledge of the world) obtained through the readings contained in digital media, students are expected to be able to more easily understand various kinds of texts, so that they can more easily understand different types of reading.

Based on the description, the problem was formulated: (1) Can digital media literacy improve the skills in comprehending reading texts of junior high school students in Klaten Regency? (2) Does the habit of using digital media make it easier for students to understand reading texts? While the specific objectives of the study are to: (1) reveal increased reading comprehension skills through digital media literacy for junior high school students in Klaten Regency, (2) describe the level of activeness and ease of students in understanding reading text using digital media?

This research has urgency for the development of education and teaching technology, in this case digital or electronic media, which is expected to be an alternative learning model. With digital media literacy, it is also expected to be able to improve students' skills in reading according to the type of text. Because the ability to understand reading is related to understanding knowledge and with digital media literacy, it is hoped that it can improve the digital media literacy rank, not only their reading literacy, of students at the international level. With successful reading, learning can simultaneously support the development of the Indonesian nation's Science, Technology, Social, and Culture (IPTEKSOSBUD).

Literature Review

Digital media is one of the gadgets in new media. The new media includes computers, the internet, telephones, Personal Digital Assistants (PDAs) and other digital equipment, all of which are important issues in the world of professionalism and the world of work in general, and are an important aspect of personalised learning (Kurniawati & Baroroh, 2016; van Laar, van Deursen, van Dijk, & de Haan, 2018; Moreira & Rocha, 2019). In this research, what is meant by digital media are computers, internet, and smartphones. These media are familiar among students because, in the community, they have become part of the necessities of life. At present, the people of Indonesia in their daily lives and activities are never separated from digital media, especially smartphones. This habit can have both negative and positive effects (Harju, Koskinen, & Pehkonen, 2019; Webb, 2019; Pazio & Ntonia, 2019). The negative effects, among others, can cause someone to be lazy to do other work because the concentration is based on the media, while the positive benefits can improve one's skills in reading text and have a wealth of knowledge. In this context, positive benefits are taken, namely to increase literacy skills in reading text by utilising digital media in learning, and at the same time to participate in society (Turner, et al., 2017). By utilising digital media, it is hoped that it can make students more easily capture the contents of reading texts. If students understand the text easily, it is hoped that reading comprehension skills will also improve.

Computers and smartphones are devices that can access the internet to find out all kinds of knowledge so that it can be used as a medium in learning. This was revealed by several researchers who stated that one of the benefits of internet media is as a learning tool (Sucahyono, 2016; Rahim, 2011; Pischetola, 2011). As a learning tool, the internet contains various sciences that can enrich one's knowledge of the world. The internet has been used as a medium of learning in schools from elementary to tertiary levels (Kaliky, 2013; Sujoko, 2013; Purvis, Rodger, & Beckingham, 2016). However, digital media in the form of smartphones and computers have not been widely used by Indonesian students, even though now Indonesia has entered the era of the industrial revolution 4.0.

Digital media literacy is related to reading and writing activities through digital media. Literacy is synonymous with reading and writing activities and includes how a person communicates in society (Wiedarti & Kisyani, 2016, Eds.). Furthermore, it is said that literacy also means practices and social relations related to knowledge, language, and culture. In relation to literacy, a School Literacy Movement activity has now been carried out which aims to improve the reading and writing skills of students from elementary school to tertiary levels. However, it is no less important that "parents must be made aware of the importance of engaging in reading and writing activities at home with their children because these activities can still play a role in their children's interest in reading" (Boerma, Mol, & Jolles, 2018). In addition, it is also to increase the ranking of Indonesian students who in the literacy test PIRLS and PISA rank low in reading comprehension skills.

Digital media literacy is the expertise or ability of someone to use a computer, internet, telephone, PDA, and other digital equipment as a means of supporting communication properly and optimally (Kurniawati & Baroroh, 2016). So, someone uses the media to meet the needs of communication between individuals, or between members of the community.

Someone who has knowledge of the world, in the sense of knowing about various fields, is easier and can communicate with others. When someone reads knowledge through digital media it means that the person gets knowledge about what he reads. From the knowledge of what is read it can make him able to restate ideas as read both verbally and in writing because "metacognitive knowledge and meta-comprehension are aligned with the level of information provided in a text" (Soto, et al., 2019).

Learning bahasa Indonesia in elementary and secondary schools based on the 2013 curriculum is based on text, both oral and written, by placing Indonesian as a vehicle for knowledge. It also continued at the tertiary level in general Indonesian compulsory subjects. Text-based learning can also be said to be genre-based learning. Various texts were introduced to elementary and middle school students in the learning. Each type of text has a different structure that reflects the structure of one's thinking. With the mastery of various types of texts, more and more thinking structures controlled by students are useful in social and academic life.

The term discourse is often interchangeable with text. In this discussion, the two terms are equated (Setiyadi, 2012 & 2018; Setiyadi & Setyandari, 2018; Wulan, 2017). The text is also called genre (Wiratno, Purnanto, & Damaianti, 2014). In the Indonesian Language Textbook, both for primary and secondary education based on the 2013 Curriculum, the term chosen is text. Text is a unit of language that can be provided in writing, or verbally arranged according to a particular text structure that expresses contextual meaning (Wiratno, 2009). Text can be either written or oral, even in multimodal it can be in the form of a combination of oral text, written, and images in the form of animation or film.

It was mentioned earlier that the text is also called a genre. In a narrow sense, genre is defined as a type of text, broadly defined as a goal-oriented social process that is achieved in stages or as a form of "textual agency in which generic texts and organisational actors form agency performance relationships that shape action and shape professional epistemology" (Jahn, 2018). People use certain types of texts to do something, for example to explain the procedure for registering new students at the University, so the procedure texts are used. To influence someone, hortatory text is used, to tell something, the reconfiguration text is used, and so on. To produce it all, the text is arranged in stages. It is through these stages that the social purpose or function of the text can be achieved. Even in understanding reading, people must know and understand the types of reading text structure they read because "categorisation of genre is the starting point for an interpretation" (Woods, 2017) so that it can more easily understand the reading text.

There are four main language skills that need to be fostered and developed, namely listening, speaking, reading, and writing (Tampubolon, 2015). Reading is a communicative activity that has a reciprocal relationship between the reader and the contents of the text, and then factors such as education, intelligence, attitude, and language ability will determine the process of absorption of reading material. As a basic language skill, reading is one of the language skills that students need from elementary to college (Setyawati, 2013). Types of reading include reading for beginner and advanced reading. Reading for the beginner is reading for childhood, especially in the beginning year at school. Advanced reading is said to be for reading comprehension (Tampubolon, 2015). The emphasis of the problem in this research is about understanding the reading text, which is included in advanced reading.

Reading comprehension is the process of constructing the meaning of a text (Omar, 2015). It involves some complex co-ordination which includes several processes, namely coding, understanding and recognition of words, background knowledge, and previous experience. Reading comprehension is also achieved through successful interaction between the reader and the text (Al-Faki & Siddiek, 2013; (Gilakjani & Sabouri, 2016). Another opinion states that reading comprehension is the readiness of the reader in utilising all cognitive / mental functions to understand the symbols / symbols of written language such as words, phrases, clauses, sentences contained in reading, both explicitly (literal understanding) and implicitly (interpretive understanding, critical, creative) appropriately (Supriyono, 2014).

Methodology

This study was designed with Classroom Action Research conducted in cycles (Kemmis & McTaggart, 1988; Hopkins, 2011; Creswell, 2012; Triyono, 2016). The object of the study was the students of class VIII Junior High School 5 Klaten, Central Java Province with a total of 32 students. Data collection used tests, structured interviews, and observation techniques. The instruments used were tests, interview manuals, and observation sheets. The test technique was carried out to find out the students 'skills in pre-actions and actions, to measure the increase in students' reading comprehension skills using digital media. Structured interviews were conducted with teachers, students, and collaborators during the learning process. Interviews with teachers were conducted to find out whether there were obstacles in carrying out learning using the media, also related to learning materials, methods, and other matters related to the learning process.

Interviews of 15 students, individually and in groups, were conducted to find out their responses to the media, methods, and learning models implemented or related to their activities using digital media and absorbing learning material. Field notes were made to document things that were found in the implementation of learning, during interviews, and when conducting tests. Observations during learning were recorded in an observation sheet that was carried out during the learning process, to observe the actions of the teacher using digital media, student activities, planning and implementation of digital media literacy learning in reading learning. Records were carried out to document the learning process that took place, so as to know more detailed things about the learning implementation process that was missed from observation.

Data analysis techniques used was the mixed-method (Creswell, 2012), namely a mixture of quantitative and qualitative analysis. Quantitative analysis was performed using descriptive statistics techniques to determine the average student scores in the pre-cycle, each cycle, and to find out the improvement. Qualitative analysis was carried out for matters relating to conclusions that describe the findings of planning results, observations of learning, evaluation of learning, reflection, and other qualitative data. Research indicators, in this case, the tests were used as benchmarks to find out the success of students in reading through digital media. The indicator of success was the results of the assessment showing an increase in learning outcomes with students' scores equal to or higher than 75 (in accordance with the value of the KriteriaKetuntasan Minimal – KKM – Minimum Completeness Criteria) reaching 100%.

Results and Discussion

Results

Pre-cycle was carried out before carrying out research to determine the condition of the students in connection with the material to understand the reading text. Implementation of learning did not use digital media, students were only given a reading text in the form of text sheets that were distributed one-by-one to students. The results of the pre-cycle showed that there were none in the student grades that were categorised as Good. The highest students' marks were those of sufficient categories (70-79) there were 7 students, while the others were categorised as less, totaling 25 students. The data showed that some students had not shown the level of skills to understand reading texts well, because there were still 78% getting grades below the KKM. In addition, based on observations, students seemed less enthusiastic in carrying out reading assignments through non-digital media. This is probably due to the lack of reading interest, while their low reading interest is certainly inseparable from the level of interest and motivation possessed by students, both intrinsically and extrinsically.

Furthermore, we conducted classroom action research with various reading text material using digital media. In the action planning stage, researchers, teachers, and collaborators developed learning scenarios, with reading text material sourced from digital media in the form of smartphones or computers. The first cycle was carried out in two meetings. At the first meeting, the teacher explained the implementation of learning in the form of literacy of reading texts using digital media. Students were invited to do literacy of various types of texts, especially narrative texts, exposition, persuasion, and news through digital media. Because junior high school students were prohibited from carrying smartphones according to the school management, and not all students have them, students were invited to a computer laboratory to do the intended thing. Furthermore, students were given directions to open reading texts from the internet in the form of articles related to education, social knowledge, and sports as a stage of digital media literacy practice to understand reading texts before entering an evaluation. We provide reading topics relating to the three domains of knowledge because we know that students' interests in the three fields of science are very low. This is known when considering the overall results report of students in all fields of science. The reason is that we provide three domains of science that they are not interested in so that we can be clearer in determining the results of students' actual reading interest. Another case when we provide a domain or reading topic that suits their interests, of course it can just show good reading comprehension.

Students were divided into 8 groups with each group totalling 4 students. At this first meeting, students were given time until the end of the lesson and each of them practiced reading two texts and then asked each other questions about the type of text, structure, and content of the reading to other students and also to the teacher if it was not clear. At the end of the lesson, students were given homework to do the same and report readings at the next meeting. At the second meeting, students were asked to collect their homework assignments. After that, we immediately gave a test to read a historical story text titled "Prince Diponegoro, Hero and Leader of the Nation's Example" (adapted from Agung, 2012). Students were given time to understand the reading text by answering reading questions totalling 20 multiple choice questions and 5 essay questions with a time of 30 minutes. Evaluation results can be seen in the following Table 1.

Table 1.   Learning Outcomes of Understanding Text Skills through Digital Media in Cycle I

Score	Category	Total	Percentage
90-100	Very Good	5	15.62 %
80-89	Good	6	18.75 %
70-79	Average	21	65.63 %
< 70	Bad	–	0 %
	Total	32	100 %

The results of the study in the first cycle as presented in Table 1 shows that there has been an improvement in the results if compared with the results in the pre-cycle, however, according to the performance indicators, this result has not achieved the criteria stated as most students are still classified into the Good category.

Referring to the result, we did reflections with the teacher and collaborator regarded to the action performed by the teacher. Several points were noted as the reflection towards the learning, such as (1) the teacher had implemented the learning according to the lesson plan; (2) the teacher had an effort to implement the active learning; (3) teacher was good enough in the classroom management even though the students are so noisy when doing the group discussion; (4) teacher was still less in the use of digital media, especially when browsing the reading text needs to be faster to suit with the allotted time; (5) students were active and have high spirit in doing the task given by the teacher; (6) students enjoyed the learning using digital in reading classes. The following Figure 1 and 2 indicate the observation results regarding how students are active and how teachers teaching during classrooms using digital media in the first cycle.
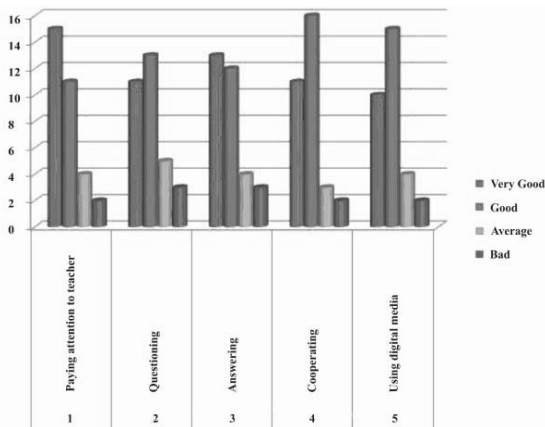

Figure 1.   Observation results for students in the learning with digital media in Cycle I
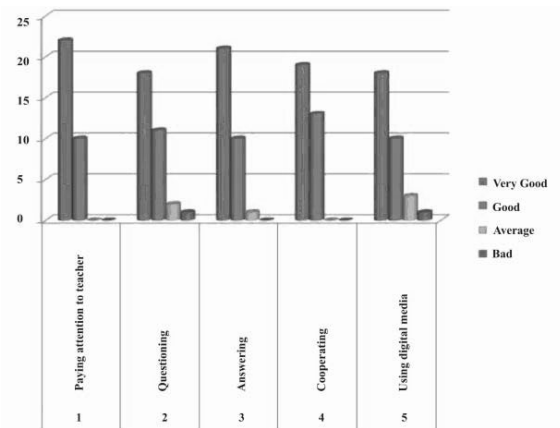
Figure 2.   Observation results for teacher in the teaching with digital media in Cycle II

Figure 1 shows that the activity level of students during learning is categorised Good with very prominent aspects of Co-operation. In connection with how the teacher conducts the learning process, and when viewed from the average value between categories, the learning process that the teacher does during class is categorised as Good as shown in Figure 2. There are five aspects related to the mean value such as the preparation of lesson plans, apperception, the ability to convey material, the ability to use media, and the ability to evaluate, while 4 other aspects such as preparation to start learning, class management, the ability to ask questions, and the ability to apply methods are categorised Very Good. For the category Average, it only exists in the aspect of time management.
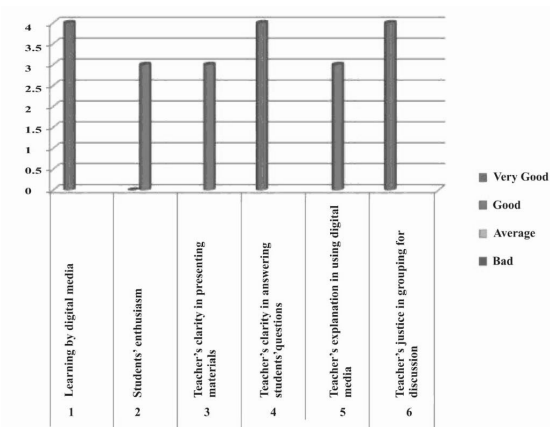

Figure 3.   Results of interviews with students in the learning with digital media in Cycle I

In the interview session with students, teachers, and collaborators in the first cycle, it was found that the teacher and students said that the learning process was categorised as Very Good as shown in Figures 3, 4, and 5. However, the collaborator gave a Good category for this. So, objectively we relied on the assessment of collaborators and the results of observations where the results of the first cycle were still categorised Good so we planned to design the second cycle.
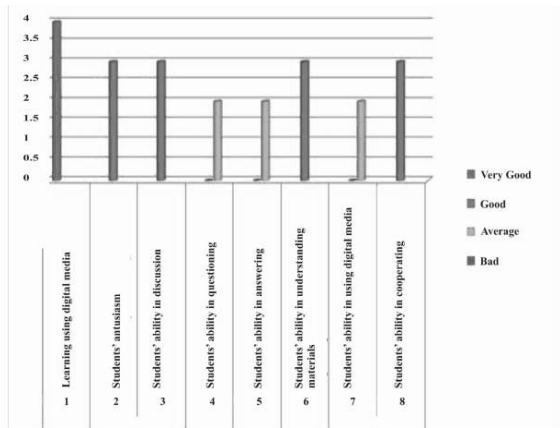

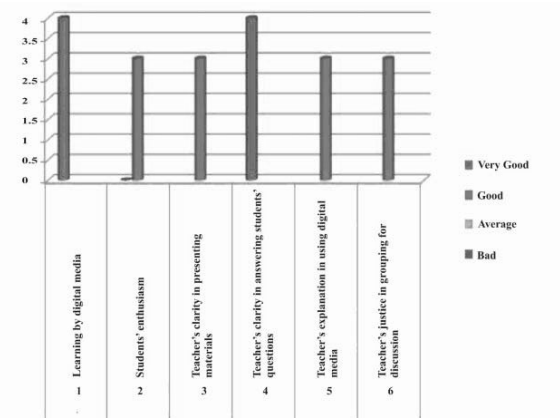*Figure 4*.   Results of interviews with teacher in the learning with digital media in Cycle I

Figure 5.   Results of interviews with collaborators in the learning with digital media in Cycle I

The second cycle was designed so that the implementation of actions is further refined. The learning steps were the same as those done in the first cycle, only the reading material varied in practice and tests. Learning was also carried out in two meetings. The first meeting was done by group learning and question-and-answer among group friends, and then followed by question-answer with the teacher. The second meeting was immediately given a

test with the topic reading "Lukuifaksi: When Land in the City of Palu and its surrounding areas collapsed" (adapted from Www.bbc.com, 2018). The test results can be seen in the following Table 2.

Table 2.   Learning Outcomes of Understanding Text Skills through Digital Media in Cycle II

Score	Category	Total	Percentage
90-100	Very Good	16	50 %
80-89	Good	12	37.50 %
70-79	Average	4	12.50 %
< 70	Bad	–	0 %
Jumlah		Total	100 %

The results of the action in the second cycle showed that students who received Very Good scores were 16 (50%), those who received Good scores were 12 students (37.50%), and Average scores were 4 students (25%) with the lowest score of 75, and not some get less marks. So, if the percentage between the Very Good, Good, and Average categories are accumulated then the result equals to 100%. The results of this improvement are also evident in the results of observations and interviews conducted after the second cycle process was carried out. The results of observations on the activities of students and teachers in learning look Very Good as shown in Figure 6 and 7. On the student side, aspects of students' attention to teachers are categorised Very Good, while on the teacher side, aspects of time management and the ability to use media are still in the Good category.
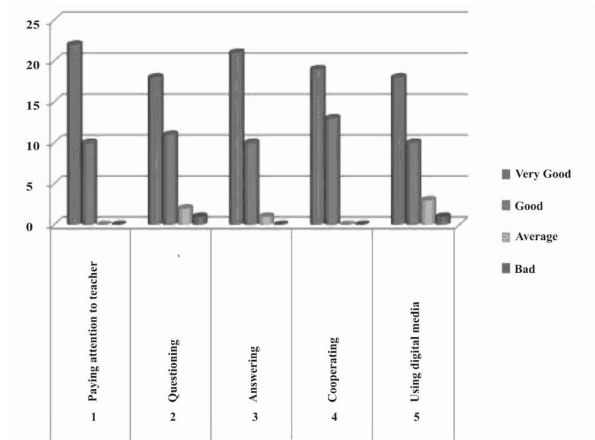

Figure 6.   Observation results for students in the learning with digital media in Cycle II
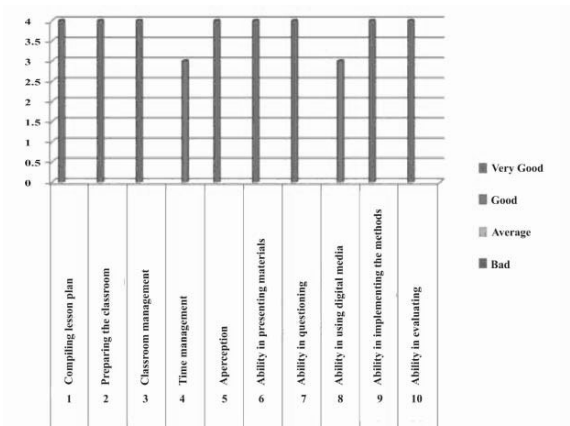
Figure 7.   Observation results for teacher in the learning with digital media in Cycle II

Likewise in the interview session with students, teachers, and collaborators, the overall re-
sults showed the category of Very Good. All aspects of the learning process are categorised
Very Good, especially when seen from the results of interviews with collaborators and stu-
dents as shown in Figure 10 and 8. However, from the teacher's side when interviewing,
students' abilities in asking, answering, and using media are still categorised Good as
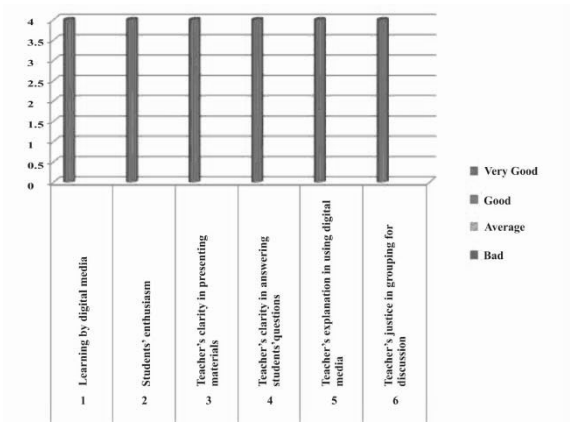shown seen in Figure 9.

Figure 8.   Results of interviews with students in the learning with digital media in Cycle II
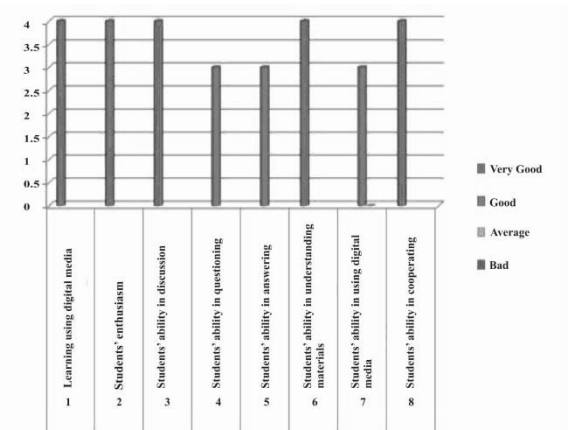
Figure 9.   Results of interviews with teacher in the learning with digital media in Cycle II
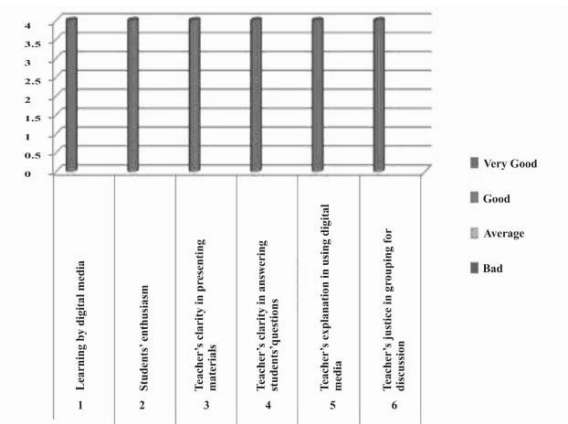

Figure 10.   Results of interviews with collaborator in the learning with digital media in Cycle II

The number of students in class VIIIA of SMPN 5 Klaten who received a higher grade or the same as KKM totaled 32 people (100%). Thus, the second cycle has been improved skills in understanding reading text through digital text literacy in grade VIII A students of SMP Negeri 5 Klaten.

Discussion

A very significant increase occurred in this study. In the pre-cycle of learning outcomes only reached the value of Average with the highest score of 78 as many as 2 people, while others were below that value with details, a value between 70-77 there were 5 people, the remaining numbered 25 people who had less grades, and this condition occurred in pre-

cycle where digital media has not been used. This condition has improved after taking action with digital media literacy. In the first cycle, students who scored higher or equal to 75 (KKM in SMPN 5 Klaten) numbered 20 people or had increased by 62.50% and there were no less grades. As we mentioned earlier that this condition, especially in pre-cycle, is certainly influenced by a lack of interest in reading. However, even though in the first cycle students scored quite high, the increase, for us, was not significantly and overall influenced by the use of digital media. That is why the increase had not yet reached the set standard. Because the action research process focuses on a learning experience where students can learn more than before, then further action is needed to achieve a real learning experience, not only on the ability of students to use digital media.

However, this still does not meet the specified criteria, so action is taken again in the second cycle. Results The second cycle has reached the specified criteria (75), which is 100% with details of 16 people of excellent value, 12 people of good value, and 4 people of sufficient value with a minimum number of 75. Thus, digital media can improve students' skills in understanding the type, structure, and reading text (Kaliky, 2013; Kurniawati & Baroroh, 2016; McDougall, Readman, & Wilkinson, 2018; Omar, 2015). However, the results show several important things to consider such as issues of teacher time management and the ability to use digital media, the ability of students to ask and answer, and the ability of students to use digital media should continue to be acted upon given that "the tendency to use digital media is clearly seen in younger people and more educated, and because digital education can create entrepreneurial knowledge and capacity" (Puspitasari & Ishii, 2016; Sousa, Carmo, Gonçalves, Cruz, & Martins, 2019). Teachers' time management seems to be related to the students' time needed for questioning and answering. In the other word, we believe that the teacher has already managed his time in lesson planning prior to teaching, but the students' low ability in questioning and answering may consume time. In fact, teacher must be eager to have their students able to do questioning and answering during learning, so as to enhance their critical thinking. In this case, we recommend facilitating students in doing questioning and answering efficiently and effectively according to the time allocated.

It is time for students to improve their reading comprehension skills through digital media literacy. This is considered by the entry of the era of the industrial revolution 4.0, all of which are completely computerised. Students should not be out of date, so parents and teachers need to take advantage of their children's perceptions of the use of new media because children see themselves as new media users who are more advanced than their parents (Hendriyani, Hollander, d'Haenens, & Beentjes, 2014). Digital media literacy is not only a requirement of students but also of teachers with the aim of "overcoming future challenges and improving the quality of Indonesian human resources through digital literacy education" (Rahmah, 2015). Teachers, specifically ICT teachers, must adapt to this modern era by deepening knowledge related to digital media literacy through education and training because according to Yusri, Goodwin, & Mooney (2015), "knowledge and readiness for mobile learning of teachers teaching ICT subjects are lower than other subject teachers". These needs to be considered and thus learning that uses digital media can be carried out properly without obstacles.

To understand reading texts, in this case the type, structure, and content of reading texts, needs to be done through digital media literacy by which students may improve their

interest in doing reading even becoming their learning experiences. Hidayati & Wuryandari (2012) and Gan, Menkhoff, & Smith (2015) show that high school and undergraduate students' attention to e-learning media is very high so that it can attract students to learn, because it has the potential to create a pleasant learning atmosphere and make learning more easy, useful, and collaborative for students to understand the topics presented. Digital media intended here are smartphone and computer media that are connected to the internet to carry out literacy on reading texts. The digital media contains a variety of knowledge that can be absorbed by students so it is advisable to "instill alternative technologies that are better suited to the learning and teaching environment of schools" (Abidin, Mathrani, Hunter, & Parsons, 2017). These various kinds of knowledge will enrich students' knowledge of the world. Therefore, teacher's self-motivation is also needed as a Mediator for Teacher Readiness in Applying ICT in Teaching and Learning (Copriady, 2014). With the wealth of students' knowledge, it will be easier to understand various texts, the structure of the text, the contents of the text more easily.

The existence of a smartphone as a digital medium can be used for scientific literacy in education and its outcomes depend on the age of the child, the contents of the application, and the context of its use (Courage, 2019). In language learning, it can be used as an effort to improve language skills, such as reading, listening, speaking, and writing so that it will take an independent domain such as conceptual, functional and audio-visual to use and even create digital media for learning (Reyna, Hanham, & Meier, 2018). In particular, digital media relating to understanding reading texts can improve reading comprehension skills so that digital media literacy also needs to be socialised as a learning medium so that its presence becomes a medium that has a positive impact. Miyake, Takeuchi, & Toda (2018) show that students can evaluate their own media usage and hope that future use will be better for themselves and their classmates than it is today.

However, regarding the security system for large amounts of personal data, Breitinger, Tully-Doyle, & Hassenfeldt (2020) recommend installing third-party security products. Therefore, regulations regarding the prohibition of carrying cellphones or smartphones need to be revised by the school by allowing them to be used if they are to be used for learning media. More else, from the research conducted at the SMP 5 Klaten, it can be seen that there is an increase in students' learning outcomes using these media. In the era of the industrial revolution 4.0, digital media plays an important role in the progress for the world of education.

Conclusion

Digital or electronic media in the form of smartphones or computers can be used as media in the learning process in all fields of knowledge, especially the field of languages; reading. There are various type of texts and contexts in the internet that the students may read. Therefore, they need literacy in digital media to facilitate their reading interest and finally they can comprehend any texts provided. Learning can be carried out using a smartphone or in a computer laboratory. This media needs to be applied for students so that the presence and closeness of the media can be used positively and creatively for them. If the regulations do not allow using digital media in the form of smartphones, learning can utilise computer

laboratories as learning spaces. In the learning with digital media, it is required for the teachers who are able to use these media well.

This can be done through training in the use of the media. The results of this study conclude that the use of digital media literacy in learning can improve reading comprehension skills for students of the SMP 5 Klaten with the students' scores equal to or higher than 75 (according to KKM scores) reaching 100%. Finally, further actions are needed to overcome the students' ability in questioning and answering and the use of the digital media, as well as for the teachers' time management and the use of the digital media.

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