

# Implementation of Digital Literacy to Achieve 21<sup>st</sup> Century Skills in The 2013's Curriculum

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**Abstract.** The 21st century is a century where all movements use technology. The rapid development of technology and the use of digital media as technological developments demand good and positive abilities. The scope of school is one of the targets in technological development, therefore the teacher accompanies students in digital literacy. Digital literacy forms students and teachers able to access various information, collaborate, communicate, think critically and be able to create. This is in accordance with the objectives of the 2013 curriculum that requires children to be able to cooperate, communicate, think critically and be able to create. Digital literacy is important to be mastered by students, namely information, media and communication. This study aims to describe the advantages of digital literacy in achieving 21st century skills in the 2013 curriculum. This study used a descriptive qualitative research method with interview research techniques. The research site was in SDN 03 Jaten, Karanganyar Regency. The results of this study are that students are able to access various information, think critically about information obtained and manage information obtained into information that is easily accepted by other students of their age and make digital literacy a place for children to have a work.

**Keywords:** *digital literacy, 21st century, 2013 curriculum*

## 1. INTRODUCTION

Today the development of further education shows its existence. Judging from the development of education from year to year shows education is increasingly advanced and developing. The transition of education from the previous century to the 21st century marked by the increasingly widespread variety of information available. The 21st century or also called the industrial revolution that requires competent, characteristic resources and high literacy power. In the 21st century education is important to ensure students have the skills to learn and innovate, the skills to use technology and information media, and can work, and survive using life skills. The 21st century is also combined with information that is available anywhere and can be accessed anywhere and unique that can be done from anywhere and everywhere [1].

The 21st century has characteristics that are increasingly continuous between science and technology. Technology becomes one of the sources in learning activities. On the other hand technological advancements help open insights for teachers and students. Characteristics of the 21st century, namely 1) learner-centered learning; 2) develop students' creativity; 3) creating an interesting, fun and meaningful atmosphere; 4) developing a variety of abilities with values and meanings; 5) learning through actions that are active students doing; 6) emphasizing excavation, discovery, and creation and 7) creating learning in real situations and actual contexts through contextual approaches [2].

To meet the resource needs and demands of the 21st century, starting from elementary school children have been trained to compete in the increasingly competitive world of work. One of the efforts is to instill literacy skills. Literacy skills in the 21st century developed through the 2013 curriculum include Language and Literature Literacy, Numeracy (Counting) Literacy, Science Literacy, Digital Literacy, Financial Literacy, Cultural Literacy and Citizenship [3]. Some of these literacy skills, digital literacy is an important point to be controlled by children. Digital literacy has a big influence on students in learning. Digital literacy is the ability to create and share in different modes and forms; to make, collaborate and communicate more effectively, and to understand how and when to use good digital technology to support the process. Digital literacy helps students to obtain information and know various information from the outside world.

Digital literacy characteristics not only refer to operating skills and use various information and communication technology devices (hardware and software platforms), but also to the process of "reading" and "understanding" the content of technological devices and processes "creating" and "writing" into new knowledge[4]. New knowledge becomes the provision of students in seeing progress to become provisions in a new creation. Students are guided to become independent, creative learners, think critically and collaborate.

The reality in the field in the learning process is that not all elementary schools use technology. Some of the teaching is still conventional. However, not a few also have started using technology to support learning. Just as in the use of projectors in learning. The projector helps teachers to convey abstract material as if it were real, so that it can be accepted by students well. Many opinions in the field that with the development of technology helps in achieving learning and obtaining information. In addition, the use of smsrtphone helps communication between teachers and parents in conveying the learning progress of their sons and daughters. The more widespread technology teachers must be good at managing the information that enters.

The skills achieved in digital literacy are in accordance with the characteristics of the 2013 curriculum. The characteristics of the 2013 curriculum are as follows: (1) developing spiritual and social attitudes, curiosity, creativity, collaboration with intellectual and psychomotor abilities in a balanced manner; (2) providing learning experiences; (3) giving time to develop various attitudes, knowledge, and skills; (4) competencies are expressed in the form of core class competencies which are further detailed in the basic competencies of learning; (5) core competencies become organizing elements of basic competencies; (6) basic competencies developed accumulatively based (reinforced, enriched, horizontal and vertical) [5]. The 2013 curriculum characteristics in curriculum learning using a scientific approach, learning outcomes are grouped in three domains, namely affective, cognitive domain, and psychomotor domains and assessment covers three domains (affective, cognitive, and psychomotor) [6].

The urgency of this research is that digital literacy is one of the skills that must be mastered by students and teachers, in order to be able to compete outside and be able to make technology media as a place to create a new work that can be seen by all levels of society both

inside and outside country. Digital literacy is applied by teachers to students in general class time or by having their own classes such as learning information and communication technology. Through planting digital literacy with students, it is able to answer the challenges of the 21st century while realizing the skills expected in the 2013 curriculum. The application of digital literacy to elementary students is able to make children think critically, dig deep information, be able to collaborate with friends and communicate verbally or write, making children think creatively with their bright ideas.

Seeing the importance of the application of digital literacy in the 2013 curriculum, the formulation of the problem in this study is why digital literacy is applied to the 2013 curriculum ?. The purpose of this study is to describe the advantages of digital literacy in achieving 21st century skills in the 2013 curriculum. Digital digital literacy is one way of developing skills in students.

## **2. METHOD**

This research uses descriptive qualitative which discusses the application of digital literacy. This study uses interview and observation techniques to obtain data. The data contains technology-based learning, the use of digital literacy in learning, and various student work created from the use of digital literacy. The subjects in this study were teachers and students [7].

## **3. RESULT AND DISCUSSION**

Literacy deals with various groups of people both young and old, students or workers, urban and rural communities that last all time. Literacy does not only apply locally, but applies globally. Various communities, both foreign and domestic, require literers. Literacy is not something new in life, because since 1958 UNESCO has described that someone is said to be literate if the person can understand the results of reading from simple writings related to everyday life. However, in Indonesia the term is still considered new because it has not been fully understood by all circles. Therefore, recently the government obliged teachers in schools, especially elementary schools to carry out literacy habits for several minutes by reading.

Reading is not the only literacy, but reading can develop literacy. Literacy is not just about reading and writing [8]. More than that, literacy includes responses, understanding, and activities of daily life that are structured and applied through continuous learning activities [9]. Literacy cannot be separated from other literacy, such as media literacy, numeric literacy and other literacy, as well as digital literacy.

Digital literacy is literacy or the ability to use digital media. The ability in question is the ability to use a variety of digital media in a good and positive way. Digital literacy is an interest, attitude and ability of individuals to use digital technology and communication tools to access, manage, integrate, analyze and evaluate information, build new knowledge, create and communicate with other people in order to participate effectively in society [10] . While Pratiwi and Pritanova explained that digital literacy is an era of new development in the world of reading and writing where various information becomes easy to obtain through social media which presents various news quickly, but sometimes is not accurate, because the speed of reporting is the most important.

Digital literacy is an effort to achieve the goal of the 21st century, which is having various skills. In this 21st century, literacy skills are not only limited to the ability to read, hear, write and speak verbally, but more than that, literacy skills are emphasized in literacy abilities related to one another [11]. Literacy in the digital era includes several components, including:

(1). Basic Literacy - ability in language (especially English) and mathematical abilities; (2) Science literacy - knowledge and understanding of scientific concepts and processes; (3) Technology literacy - knowledge of what technology is, how it works and how to use it effectively and efficiently; (4) Economic literacy - problems, situations and economic development; (5) Visual literacy - knowledge of how to use, interpret and produce images and videos using conventional and modern media; (6) Information literacy - the ability to obtain, use and evaluate information effectively and efficiently from various sources; (7) Literasimulticultural - the ability to appreciate the differences in values, beliefs and cultures of others; and (8) Global awareness - the ability to understand and problems at the global level of [12].

Starting from the skills that students want to have, the following are the advantages and ways to realize the achievement of digital literacy in elementary schools:

### **3.1 The role of the teacher in digital literacy**

Teachers in digital literacy act as facilitators. Teachers need to develop themselves so they can keep up with developments that ultimately can become facilitators for students. Teachers and students can be good and positive digital media users. As a facilitator the teacher can help students by providing various information related to the use of digital media and provide responses and inputs regarding the behavior of using digital media . The teacher as a facilitator conducts guidance so that the creation of character for students, ultimately leads to the ability to have digital media in a healthy manner [13].

This can be seen in SDN 03 Jaten, Karanganyar Regency, that teachers become facilitators for their students. The teacher accompanies students in utilizing electronic media such as internet use. The teacher provides positive support for the success of students, monitoring what students do in the use of media literacy. Teachers at SDN 03 Jaten also direct their students to access information that supports learning.

In addition to being a facilitator, teachers at SDN 03 jaten also act as models for their students and as friends for students. It was proven, that almost all of the students were able to use good and healthy digital media. Not separated from the role of the teacher as a child friend who is able to listen, observe, and help students' problems, so that they can develop students to become human believers, noble character, intelligent and skilled, including in digital media.

### **3.2 Train students in understanding digital literacy**

Introduction of digital literacy to students through learning in the classroom. Students begin to recognize information, media, and how to communicate. The teacher provides an overview of how to access the media and obtain information. Through simple things like finding information to be used as media in the subject matter being taught. Students in SD 03 Jaten in Karanganyar Regency in teacher learning use technology-based learning media, so that students indirectly come to practice to utilize the digital media. Digital literacy not only introduces information and media, but students are able to digest, understand, and communicate well.

### **3.3 Digging accurate information**

Information is something that is sought every day by various groups, both students, parents, and workers. Information has its own appeal to the reader, but keep in mind that information is not all true. The role of the teacher begins to be needed in teaching students to

find the right information. Students must be able to sort out real information or sweetener information. Accurate information can be obtained through official websites. Through learning students are taught how to dig up the information needed and filter the information obtained so that they find accurate information [14].

The process of getting information students can use the internet that is available at school. Through the internet, the information is far more accessible and can be supplemented by various sources and contributions from others [15]. On the one hand, this implies that information seeking is an active and complex procedure that is an important part of learning through exploration. Therefore, to be truly effective, it requires understanding, concentration and deep selection.

### **3.4 Use of media literacy**

Media literacy is not only related to the high exposure of the media, but is related to several other factors, namely the importance of information for information seekers, the important role of cultural participation, and the development of popular culture make more children and adolescents access digital media. In the context of new media, media literacy is not only related to digesting media content but also producing multimedia texts and even hypermedia interactive texts [16]. In addition, literacy is also connected with the very rapid growth of internet use by children and adolescents through their interaction with the internet at home [17].

Related to media literacy, it is an important thing that must be owned by teachers and students to obtain and utilize the media in learning at school. The use of the media in learning is not merely petrified to explain abstract concepts to be more concrete, but further than that to explore the various skills that students have. The benefits of media are: (1) students must be able to analyze the media which is to understand well how and why messages in the media are made and for what purpose the media checks how everyone can interpret messages very differently, how values and points of view are included how media can influence beliefs and behavior, and apply a fundamental understanding of ethical and legal issues surrounding media access and use. (2) producing media that is how to understand and utilize the most appropriate media tools, characteristics, and creation conventions, and effectively understand and utilize the most appropriate expressions and interpretations in diverse multicultural environments.

### **3.5 Creating works**

Technological progress has become a bright spot for the advancement of education. Technology is a means of creating new original works. Just as teachers and students in SDN 03 Jaten collaborate to learn and create new works through the technology provided by the school. Students are accustomed to creating new works, such as making simple videos. In this case not only the teacher and students involved, but the parents involved in making the work. Students are trained to communicate the work that has been made. In accordance with the 2013 curriculum that children are able to create and communicate.

The existence of digital literals of students is able to create their own platforms such as blogs. Blogs are a place where someone is able to express their ideas or thoughts in a writing that can later be enjoyed by the general audience. Blogs cannot be articles, such as poems and children's stories can be included in a blog. The existence of digital literacy can help students in sharing their work, which starts only in school mading, can now be enjoyed by the wider community. But the teacher must continue to assist students in using technology.

### **3.6 Benefits of digital literacy for students**

Not only does the child succeed in creating, but students are trained to publish the work that students have made. The publication is through the magazine in the school, and together with the teacher published through the school web. Students in SD N 03 Jaten are almost all able to access the web properly. Many advantages obtained by students and teachers in mastering digital literacy skills, namely: a) creating innovative new works; b) students are able to make papers; c) students are able to bring up their creative ideas after seeing videos; d) students are able to make their own learning media as a support to further explore the material taught by the teacher; and d) students care about the surrounding environment, making it easier to bring up creative ideas [18].

Judging from the various advantages possessed by SDN 03 Jaten students that the application of digital literacy has been going well. Students and teachers alike have digital skills and 21st century skills developed through the 2013 curriculum are reflected. In addition to digital literacy that has been running and reflected, its students have character, are virtuous and become healthy users of digital literacy.

## **4. CONCLUSION**

The implementation of digital literacy as a means of realizing 21st century skills developed in the 2013 curriculum. Digital literacy itself has the meaning of searching, understanding, critical thinking and communicating. Digital Literacy does not stand alone but is continuous with other literacy. The 21st century marked by the development of technology is a challenge in applying digital literacy to students. The application of digital literacy is done through classroom learning activities. One of the teachers used a projector and computer as a learning medium. In addition to learning, students have their own classes for digital literacy learning. Students are taught to use the internet to find information and images to find ideas in making works. Increasingly developing technology and increasingly widespread information students are able to think critically about an information obtained and are able to communicate again in accordance with their language and easily understood by their peers, able to create various works, and able to distinguish true information from those that are not true. This cannot be separated from the role of a teacher. The teacher participates in digital literacy learning. The teacher acts as a facilitator to help students by providing various information related to the use of digital media and provide feedback and input regarding the behavior of using digital media. The teacher as a facilitator conducts guidance so that the creation of character for students, ultimately leads to the ability to have digital media in a healthy manner. The teacher being a model in digital literacy means that the teacher uses digital for good and positive things, so that the students imitate what the teacher does. Teachers become friends for students, meaning that they must be able to be listeners, observe, and help students' problems, so they can develop students to become human believers, noble character, intelligent and skilled, including in digital media.

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