



Improving Civic Intelligence Through Citizenship Education Based on Digital Literature Curriculum

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Abstract. The writing of this article contains a theoretical study of how learning Citizenship Education based on the digital literacy curriculum which is the Indonesian government's program, "Indonesia Makin Cakap Digital" can increase the civic intelligence of students, especially young citizens who use digital. This paper departs from the many phenomena and findings that illustrate that the quality of citizenship intelligence of Indonesian citizens is not in good condition, especially the digital native generation, so that this condition must immediately find a solution to the problem. Along with that, the government wants to increase digital literacy for all aspects to answer the challenges of the 21st century. So the author examines theoretically between civic intelligence and digital literacy. The methodology used is grounded theory, which is developing a theory of increasing citizenship intelligence by means of digital literacy-based learning. The subject of this research focused on students, students were chosen because they are a digital native generation. The results of this study found that the quality of citizenship intelligence has a correlation with the level of mastery of digital literacy or digital literacy, where in Indonesia itself the level of digital literacy is at a low level. Therefore, it is necessary to strengthen digital literacy for citizens, especially the digital native generation. So this article produces theoretical and conceptual statements that can be applied about how to increase civic intelligence through Civics learning based on the digital literacy curriculum.

Keywords: Citizenship Education · Civic Intelligence · Digital Literacy

1 Introduction

Global developments that are currently facing the era of disruption have more or less threatened humans sociologically, causing changes in attitudes and behavior in individuals and society. The era of disruption occurs because of the industrial revolution 4.0 which is marked by the use of information technology and digitalization in all aspects of life, so that in practice this disruption indirectly threatens the social norms of society. Even Fukuyama describes disruption as a major disturbance manifested in shifting values [1]. The shift in values occurs because human orientation has changed, the loss of humanism, reduced social sensitivity, and even the loss of civility are concerns that

arise during the current disruption period. This condition is a sign of the lack of collective intelligence or public intelligence of each individual, this can be dangerous for the harmony of life both socially and at the level of the nation and state.

Collective intelligence or public intelligence highlights a person's ability to position himself in the middle of the sociological order, how an individual plays his role as part of a social society. Like human nature, he is an individual as well as a social being. So that it is not only individual intelligence that is needed, but public intelligence is no less urgent. Based on the perspective of citizenship, public intelligence is also referred to as *civic intelligence*.

Civic Intelligence or citizenship intelligence is the ability of a citizen to play an active role as a citizen of a country and a citizen of a society in a complex life order based on the normative identity of the nation and state. Someone who has citizenship intelligence will show his role as a citizen who cares about social conditions, actively responds to various phenomena, is critical of existing conditions, upholds applicable ethics and norms, and is tough in dealing with various life problems he experiences. So when someone has citizenship intelligence, the individual will become a smart and good citizen figure as well (*smart and good citizenship*). Not only that, the survival of a nation and state is very dependent on citizens who play a proactive and intelligent role, this will bring progress to the nation and state. Because in general civic intelligence is a dynamic ability to prepare for and deal with social issues, such as an economic crisis [2].

Citizens who have intelligence will play their role competently. 21st century competencies are increasingly complex, the demands for capabilities that must be mastered by humans are also increasing, but this makes the threats that accompany them increase. As the era of disruption caused a shift in values, it is also the cause of the poor quality of citizenship intelligence. Humans who live with the convenience of technology and information, especially young citizens of the *digital native generation*, in fact do not always show positive behavior. There are many studies that describe changes in *native digital* especially in terms of delivering messages, opinions, and even criticism and are delivered radically [3]. This has become an illustration of the weakness of public intelligence or citizenship intelligence in *digital natives*. Whereas Christensen as the character who first raised the concept of disruption considers this condition as a favorable condition [4]. It turns out that the use of digital technology that is not accompanied by intellectual intelligence, emotional balance, social morals, and spirituality, will only give birth to *selfish* and far from the prevailing ethical and moral principles of humanity.

To respond to this, the aspect of civic intelligence must be in the spotlight and receive more attention. Moreover, citizenship intelligence is widely ignored and considered as an ability that can be obtained by itself. The world of education is too focused on increasing individual intelligence in academic terms, and is weak in providing collective intelligence. The existence of an education pattern that focuses on increasing civic intelligence has become a must, especially for young citizens and the *digital native* who are full of challenges. Especially Civics as character and moral education, which has the responsibility to form citizenship intelligence. Civics learning models accompanied by digital literacy programs can be a solution to the problems that have been feared so far. Civics learning models based on digital literacy are learning activities that are actual

and responsive to the use of technology, such as collecting information, evaluating information, creating and disseminating information digitally, and utilizing technology and digital media as *media of intellectuality*. Equipping *digital natives* with digital literacy can help them understand information and knowledge, which is the capital to develop civic intelligence or public intelligence. Even the use of digital technology accompanied by literacy has helped early recognition of literacy in early childhood which has gradually become multimodal towards mastery in various modes [5].

By making the best use of digital technology, fears of moral degradation and the threat of sociological change can be minimized. Other studies also describe that learning media with digital literacy practices are effective as a new area for learning [6]. Which is not only a vehicle for the formation of *smart and good citizens*, but also as a vehicle for building communication, solving problems, and showing concern for others [7].

Based on this background, the focus of this paper is: (1) describing the condition and urgency of civic intelligence in Indonesia; (2) describe the condition and urgency of digital literacy in Indonesia; (3) how digital literacy can improve the citizenship intelligence of young digital citizens.

2 Literature Review

The phenomenon of the use of digital technology as a result of the industrial revolution 4.0 is increasingly manifesting and increasing sharply. This situation can be characterized by changes in people's daily lifestyles. This is what came to be known as "disruption". Disruption can be interpreted as a fundamental change that changes all systems, orders, and habits. Christensen as the character who first raised the concept of disruption considers this condition as a favorable condition, he sees this as an opportunity for innovation, with technology it will facilitate the manufacturing, marketing, investment, and managerial processes [4].

However, in practice, this disruption has also caused changes in attitudes and behavior in individuals, such as keeping people away from humanism. This condition can indirectly threaten the social norms of society. Even Fukuyama describes disruption as a major disturbance manifested in shifting values [1]. For this reason, this disruption is sometimes interpreted as a disturbance that changes the order of life. With the development of advanced technology, it causes social chaos as well as fundamental changes to the world of goods and services industry [3].

The term disruption which was originally used for the context of manufacturing, marketing, investment, and managerial processes, is now expanding and affecting all aspects of life, including the world of education. If disruption is understood in multiple ways, then in the Indonesian context, disruption refers to a disruption to the development of science, but also an opportunity for the development of higher education [8].

The emergence of the era of disruption is marked by the advancement of ICT (*Information and Communication Technology*) which has changed the human perspective in consuming, producing, and distributing information [9]. In a digital environment, people can learn from many sources [9]. This has also changed the view that now teachers are no longer the only source of learning [10]. Learning resources can now come from various sources such as textbooks, print and electronic media, and the natural environment [11].

Especially now with the industrial revolution and the development of digital technology that gave rise to ICT, and can be used as the most extensive learning resource. This includes digital literacy or digital literacy that can be used as a learning resource [12]. In the education sector, ICT has produced *e-learning*, namely the use of digital electronic devices for the learning process [13]. This encourages the use of digital resources and communication tools in the education process [14].

In the Indonesian context, the era of disruption opens opportunities for higher education institutions to help experts (lecturers) to become. Informed experts with the ability to provide appropriate solutions to problems faced by society [3]. However, the fact students' digital literacy skills in Indonesia are still very low [15]. The low level of digital literacy results in low competence, one of which is civic intelligence.

Good citizens are citizens who in playing their role in the life of society and the state are always based on the values of the state constitution, which are used as guidelines in daily life as citizens. To form good citizens (*good citizenship*), one of the fundamental things is the need to develop *civic intelligence*. According to Winatra, there are seven skills that must be built to form *civic intelligence*; namely *civic knowledge*, *civic disposition*, *civic skills*, *civic confidence*, *civic commitment*, *civic competence*, and *civic culture* [16]. The seven skills must be harmoniously integrated in the activities of thinking, acting, and acting as Indonesian citizens, which are based on *civic values*. The seven aspects of *civic intelligence* are an integral part of the psychological process of students. Thus, the origin of *civic intelligence* is the value system that is in the realm of affection for citizens. Fraenkel explains that this affective domain includes the ideals and goals that a person holds or expresses, aspirations expressed, attitudes displayed or expressed, preferred feelings, actions taken, and worries *expressed* or looks. Schuler adds that *civic intelligence* refers to the human ability to use information and communication in the context of collective problem solving [17].

However, *civic intelligence* is often overlooked, because it is considered an ability that can develop by itself [2]. In fact, this civic intelligence really needs to be developed into knowledge and must be instilled in every individual as intellectual property that will become an asset for the nation in the country's development process, especially for a country like Indonesia. In Indonesia the quality of intelligence of citizens is not in good condition, because during the education process it does not emphasize the importance of civic intelligence and only highlights personal intelligence, as a result citizens will have difficulty adapting to life and surrounding conditions [18].

3 Methodology

Research is an effort to develop science for the benefit of mankind. A research can be in the form of an effort to prove, develop, and or discover. This research tries to find or reveal a meaning that is the essence of the Civic Education (Civics) learning process that is affected by the era of disruption and digitalization. Researchers see the phenomenon of a paradigm shift in development in the learning process, where the current learning process is identical to the use of digital technology as an influence from the era of disruption. While the inputs in the learning process, namely teachers and students, not all of them master digital literacy as capital in the use of digital technology. This phenomenon is

what researchers want to reveal to find the meaning of the Civics learning process based on digital literacy.

This study uses a qualitative approach, because it relates to aspects of value or meaning contained in a fact or phenomenon and aims to develop a theory that is able to solve the highlighted phenomenon. The value or meaning in question can only be expressed and explained in a narrative manner through linguistics, language, or words. The qualitative approach itself is an attempt to understand or interpret a phenomenon which is usually a social reality, this approach is a naturalistic research or also called post positivism. This study uses a qualitative approach on the grounds that the problem under study is a social reality that requires a broad interpretation. Researchers are trying to find the meaning of the social reality that is happening in the education process in general, and the learning process in particular.

The research method is the method used by researchers in carrying out their research. The research method chosen in this study is Grounded Theory, with consideration of the objectives of this study are data theorizing. In the grounded theory method, research tries to produce a theory which interprets the action or interaction under study. So for This type of research examines behavior, then this method is very good to use. It should be emphasized that in grounded theory research, the object of study is not a theory, nor does it aim to reject or compare the theory, but the object of study is a behavior or phenomenon which then from that behavior produces or construct theory.

The subjects of this research are program students Bachelor in the study program of Pancasila Education and Faculty Citizenship Teacher Training and Education at the Mandiri University in Subang Regency. Para students who are spread over 3 classes in 3 generations are investigated and their behavior is observed during Civics learning process that uses a method based on the literacy curriculum digital. The research process was carried out for approximately 3 months or 8 times to be exact meeting. The data collection techniques in this study were carried out in the following ways:

- a. Observation, is a technique of collecting data by observing and paying close attention to every event and activity that is taking place during the research, then the results of the observations are recorded with an observation tool. This research uses the *participant observation technique*, where the researcher will be directly involved in the daily activities of the subject and object being observed.
- b. *Focus group discussion* is a qualitative data collection technique through interviews and discussion in groups. This instrument is used to collect data in the form of a narrative.
- c. Inventory, as an instrument used to measure individual characteristics.

The data analysis technique used in this study is the data analysis technique from Miles and Huberman. The qualitative data obtained were then analyzed using the following steps: data reduction, data display, and decision making.

4 Result and Discussion

Civic Intelligence or citizenship intelligence is the ability of a citizen to play an active role as a citizen of a country and a citizen of a society in a complex life order based on the normative identity of the nation and state. Someone who has citizenship intelligence will

show his role as a citizen who cares about social conditions, actively responds to various phenomena, is critical of existing conditions, upholds applicable ethics and norms, and is tough in dealing with various life problems he experiences. So when someone has citizenship intelligence, the individual will become a smart and good citizen figure as well (*smart and good citizenship*). Not only that, the survival of a nation and state is very dependent on citizens who play a proactive and intelligent role, this will bring progress to the nation and state. Because in general civic intelligence is a dynamic ability to prepare for and deal with social issues, such as an economic crisis [2]. Citizens who have intelligence will play their role competently.

The dimension of *civic intelligence* is not only intellectual, one must also have intelligence in terms of emotional, social, and spiritual [19]. Because intellectual intelligence must be *backed up* by good emotional, spiritual, and moral intelligence so that *output* produced is in line with the principles of humanity and applicable morals. On the other hand, if intellectual intelligence is not accompanied by emotional, social, moral and spiritual balance, it will only produce greedy, egotistical, and arrogant humans.

Currently the quality of intelligence of Indonesian citizens is not in good condition, because during the education process it does not emphasize the importance of civic intelligence and only highlights personal intelligence. Then Education should change its paradigm to form the realm of affection, especially public intelligence or citizenship intelligence.

Citizenship intelligence can basically be cultivated and developed. Especially the Higher Education Institutions as a reservoir of intelligence and intellectuals, it has become their duty to develop the citizenship intelligence of citizens. Education must appear as a pioneer in renewing the morality of education and society. The reform should be comprehensive, so that moral integrity becomes the hallmark of both academic and administrative services, learning and research activities and processes, as well as in collaboration with partners.

In addition, the presence of the era of disruption brings with it opportunities and challenges for something fundamental in the field of higher education, namely ensuring the spiritual foundation of culture through the development of commendable academic morals. The threat of the phenomenon of the era of disruption that is becoming increasingly real is a change in the sociological structure of life, marked by changes in communication patterns, especially in terms of delivering messages, opinions, and even criticism and delivered radically [3]. The use of digital technology that is not accompanied by digital literacy, will eventually make its users no longer wise and can even be used as a medium for crime. It is no longer wise when people misinterpret the function of digital technology to make it *selfish* and *narcissistic*. This is confirmed by the theory of three types of social media users consisting of *narcissism*, *shyness*, and *loneliness* [20].

On the other hand, the presence of digital technology has a good influence on children's development if its use is balanced with digital literacy. The results of research on children in the northern world, have documented how digital technology helps them find and understand knowledge, as well as experience early literacy in early childhood which gradually becomes multimodal towards mastery in various modes, including in terms of words, images, and sound [5]. The results of this study show the positive side

of the digitalization era if the practice is balanced with digital literacy. Other studies also describe that learning media with digital literacy practices are effective as a new area for learning [6].

From the two sides of the impact that has arisen in the era of disruption, we have an idea of how positive and negative digital technology is. So we must be able to optimize the opportunities that exist, while we must minimize the threats. This is where the importance of providing digital literacy. The concept of digital literacy was first introduced in 1997 by Paul Gilster in his book entitled *Digital Literacy* [21]. Digital literacy itself refers to a person's ability to use, utilize, and create content on digital technology media. As embedded by Cornell University about digital literacy, namely the ability to find, evaluate, utilize, share, and create content using technology and digital media [22]. This meaning refers to all consumption activities as well as human production of everything that smells of digital technology. Surfing in the digital era requires skills in the field so that its use does not have a bad impact in the future. The ability in question is not enough about being proficient in using it, but also being proficient in understanding any information, being able to evaluate information, appreciating information, being able to communicate information, and even being able to produce information.

Indonesia is a country with quite a lot of users of digital technology and the internet. In a 2018 survey conducted by APJII, of the total population of Indonesia, which is 264.16 million people, 171.17 million are active internet users, or 65.8% of the total population. The penetration of internet users in Indonesia is evenly distributed in all fields of profession and age level. The average internet usage of Indonesians is more than three to four hours per day. The results of the APJII survey also explain the reasons for using the internet among Indonesians, as for the three strongest reasons, namely, 24.7% of Indonesians use the internet as a communication tool, 18.9% use the internet as access to social media networks, and 11, 5% use the internet to find the information they need. In terms of using the internet as a social media network, the content most frequently visited by Indonesians is Facebook at 50.7%, Instagram at 17.8%, and Youtube at 15.1% [23].

The data from the APJII survey shows the phenomenon of the high consumption of Indonesian people towards digital technology and the internet. However, if examined, of the many uses of digital technology and the internet, not all use it wisely and well. In the field of communication and social media, we know that a lot of content is actually considered immoral and useless, for example making *pranks*, the presence of influencers who set bad examples, spreading hoax news and hate speech. This is common and commonplace if the use of digital technology is not balanced with digital literacy. So digital literacy programs must be introduced in formal learning spaces. Even in America in 2019, 50% of high schools have done online learning [25].

The digitization of everyday life has significant implications for education. Digital literacy has become a key concept to help educators, researchers, and education bureaucrats face the competition of a digital society. But unfortunately, there are still many educational institutions that have not fully considered digital literacy as a basic literacy that must be possessed equivalent to reading, writing, and counting. Whereas the provision of digital literacy skills is very important in improving the quality of digital learning [26]. The implication of increasing students' digital literacy is to help them

develop the knowledge, skills, and character to live in order to contribute and thrive in the digital world of the 21st century. Even the success of students in mastering digital literacy makes them citizens who are involved in nation building in the future. However, the fact students' digital literacy skills in Indonesia are still very low.

Therefore, it is time now for the education revolution to be carried out, innovation and assimilation between education and digital technology is a must. Digital literacy is a prerequisite for adapting in the information age or internet era. Advances in ICT have changed the way people view, consume, produce, and distribute information. In a digital environment, people can learn from many sources. This has also changed the view that now teachers are no longer the only source of learning [10]. Especially now with the industrial revolution and the development of digital technology that gave rise to ICT, and can be used as the most extensive learning resource. This includes digital literacy or digital literacy that can be used as a learning resource. In the education sector, ICT has produced *e-learning*, namely the use of digital electronic devices for the learning process. This encourages the use of digital resources and communication tools in the education process.

In this era of internet-based learning or *e-learning*, educators and teachers need to change some and or all of the conventional forms of instruction to technology-based instructions, which are generally known as digital classes [27]. The digital class itself refers to a class that consists of at least three practices, namely (1) interaction; (2) symbolic flexibility; (3) extensive sources of information. The digital classroom itself has been facilitated by technological sophistication that provides controllable time, place, path and/or speed.

These activities require a relationship between teachers and teaching participants that is no longer classical, but must be flexible, dynamic, and always connected virtually. So that students are asked to express their ideas in digital media [28]. In addition, students must also have skills in interacting with files, which includes converting and creating graphics from one type to another, as well as using web-based tools to complete tasks [29]. The impact of changes in learning based on digital technology will be very beneficial for students, so this is the reason for the importance of *e-learning* and digital classes. Integration of technology in learning practices, among others, can increase the involvement and academic ability of students [30].

There is a simple model for implementing *e-learning*, namely the SIMPLE model (*student/instructor, assessment, inventory, measurement, planning, leadership, and evaluation*). The SIMPLE model is an *e-learning* that pays attention to six areas, namely: (a) assessing the skill level of students and/or teachers in using ICT; (b) identification of the types and forms of ICT needed in the learning process; (c) the gap between current and future conditions in terms of technology, finance, and learning standards; (d) planning of instructional design, *e-learning* for students and educators, and broader ICT policy development at the institutional level; (e) leadership at the level of higher education organizations, (f) evaluation that can occur at all levels of higher education organizations (universities, faculties, departments) [31]. Model *e-learning* can produce a *full power way of learning*. Many advantages can be obtained from *full power learning*, contrary, there will be many weaknesses if the learning method is not or lacks *full power*. Learning that is not *full power* contains the meaning of less meaningful, less integrative

with the real life world of students, less values-based, less challenging, and less active involvement of students in learning [32].

The digital literacy program itself has many positive impacts as a provision of knowledge, understanding, and skills in using digital media, especially the internet which is often used as a source of information by the general public. Empirically, it also shows the differences in the *digital native* before and after being provided with digital literacy training, after being equipped with digital literacy, the *digital native* shows a positive attitude towards their development [33]. *Digital natives* can develop into *digital citizens*. Meanwhile, not all *digital citizens* have *civic intelligence* and are able to position themselves as smart and good digital citizens. Whereas *civic intelligence* will give maturity to a person, because this citizenship intelligence becomes metacognitive [34].

This digital literacy-based learning breakthrough can revitalize the internalization of *civic intelligence*, because with this digital literacy the concept of *education about, through, and for citizenship*. This concept has implications for the meaning of *civic intelligence* through civic education which must carry a socio-pedagogical, socio-academic, and socio-cultural mission [16]. So that the potential elements of *civic intelligence* form of *civic knowledge*, *civic disposition*, *civic skills*, *civic confidence*, *civic commitment*, *civic competence*, and *civic culture*, get a wide opportunity to be appreciated and internalized by students to the fullest.

5 Conclusion

There is no literature and understanding of the concept of Civics learning based on the digital literacy curriculum, so the researchers formulated the definition of the concept based on the theories that have been stated previously. Civics learning based on the digital literacy curriculum is a civics education learning model whose learning procedures and activities refer to literacy or digital skills as a reference and learning resource, so that Civics learning outcomes can improve civic intelligence. Empirical data shows that in the current digital era, it does not automatically make people proficient in using digital technology. The digital skills of the Indonesian people cannot be said to be good. This affects their behavior, especially for digital natives who are actively surfing the digital world. As a result, citizenship intelligence has not yet been formed for the majority of digital natives in Indonesia. By instilling digital skills during the Civics learning process, the civic intelligence of students shows a change for the better, especially in terms of behavior in using digital technology. Therefore, Civics learning based on the digital literacy curriculum is able to increase civic intelligence.

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