



Civic Education Learning in the 21st Century Skills-Based Digital Era

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Abstract: The existence of Citizenship Education in the face of the development of the Industrial Revolution 4.0 era is very much in line with the current digital era, namely digital citizenship based on 21st-century skills which all lead to strengthening Pancasila and the 1945 Constitution of the Republic of Indonesia in the actions and behavior of students. The purpose of this research is to provide an overview and describe the learning model of citizenship education in the digital era and to foster a skill-based understanding of student learning literacy in the 21st century. The method used is a descriptive qualitative approach and data collection techniques using literature studies. The implication of this research is to form and have an impact on changing the competency demands of students in the 4.0 era that must be owned by the output and process of learning education, especially Citizenship Education.

Keywords: Civic Education Learning, Based Digital Era, 21st Century Skills.

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INTRODUCTION

To form the readiness of citizens who will face the challenges of globalization and the industrial revolution 4.0 in the 21st century, Indonesian people must be able to adapt to changes that are happening very quickly, Covey (2005) changes the times that follow changes in the phenomenon of human behavior based on that era. 21st-century skills Trilling et al (2009), characteristics possessed by 21st-century citizens Cogan & Derricott (1998) consist of the ability to know the global community, the ability to work with others, and take responsibility for their roles or obligations in society. The importance of involving citizens in civic education (Civics) education, which is oriented towards the concept of "contextualized dual intelligence" in local, national, and global nuances, (Cheng: 1999 in Winataputra & Budimansyah 2012, p. 4) is a process of providing citizenship in terms of ordering skills so that they are ready to use and useful for the progress of the nation and state. The changes in the times that are so fast with the industrial revolution 4.0 or the era of disruption are real because they have changed human actions and work that was previously still limited to conventional actions, now relying on the internet network system. Schwab, Kearney in Komalasari

(2019. p. 159) the industrial revolution is a process of continuation of changes in automation in the industrial revolution 3.0 reports with cyber-physical and cyber monitoring. In the era of disruption or what is commonly called the literacy era 4.0, reading, writing and mathematics are not enough, but there are 3 types of literacy in the 4.0 revolution era, namely; data literacy, technological literacy, and human literacy include humanities, communication, and design (Aoun, 2017).

The industrial revolution 4.0 needs to be taken advantage of opportunities to cultivate the skills of digital citizens (digital citizens) to deal with human resources including civic education to build digital citizenship to face the challenges of shifting moral values and norms of Pancasila in the global era, Komalasari (2019, pp. 160-161). Eggen and Kauchak (2012) state that learning in the 21st century in the digital era is closely related to the application of technology in school learning. Teachers must be able to prepare their students using their knowledge of the subject matter, learning and technology, and facilitate advanced student learning experiences, creativity, and innovation in face-to-face and virtual situations through the application of learning.



METHOD

The method used in this study was a qualitatively descriptive approach with a literature study. Data collection techniques utilized online questionnaires of google form. The respondents who participated in this study were 118 students from several universities such as Universitas Telkom Bandung, Universitas ESA Unggul, and Universitas Pendidikan Indonesia. Mc Millan & Schumacher (2001, p. 304) note that in survey research, researchers select a sample of respondents and use questionnaires to collect information on the variables that the researcher focuses on. The collected data was then used to describe the characteristics of a specific population. Neuman (1991, p.

267) also stated that survey researchers take samples from many respondents who answer several questions. They measure many variables and make conclusions from questions regarding the behavior, experience, or characteristics of a phenomenon.

RESULTS AND DISCUSSION

The questionnaire used in seeing the images and perceptions of students in the 21st-century Civics learning was 118 respondents using a Likert scale: 1). Never / don't agree 2). Never / less agree, 3). Sometimes / Hesitating, 4). Often / Agree, 5). Always / Strongly Agree.

Table 1 Questions of 21st Century Civics Learning Variable

No	Items	Response items				
		1	2	3	4	5
1	Civics learning delivered by lecturers is by the competencies and learning outcomes?	3	2	3	59	41
2	Civics Learning provides students understanding and learning experiences in overcoming problems?	0	2	10	51	55
3	Civics Education can provide stimulus in thinking systematically, flexibly, and openly in overcoming problems?	1	0	10	59	48
4	Civics Learning can provide experience in communicating effectively both verbally and written forms?	0	1	14	60	43
5	Civics learning materials can make students flexible in communicating personally and in groups to make decisions to achieve common goals?	1	0	29	51	31
6	Civics Learning equips students to work creatively and innovatively in discovering new things?	1	1	19	53	42
7	Civics Learning makes students able to collaborate and work together in building creativity and innovation?	1	1	17	57	42
8	Does Civics Learning adapt to new things in learning and group activities?	1	3	24	55	35
9	Learning Civics can manage the goals and time to be achieved?	0	3	13	55	47
10	Civics Education can make students work independently and be able to organize themselves?	1	2	9	48	58
11	Civics Learning makes students interact with their groups and other groups?	0	3	21	63	31
12	Civics Learning makes students work collaboratively to manage a project?	3	9	38	45	23
13	Civics Learning makes students creative in making and producing a product?	1	2	14	43	58
14	Civics Learning can shape students to lead themselves and others?	0	3	21	63	31
15	Civics Learning makes students disciplined and responsible for what is produced for the wider community?	3	9	38	45	23



16	Does Civics Learning provide knowledge experience in accessing information actively and efficiently?	1	2	14	43	58
17	Civics Learning can evaluate information that will be used critically and competently?	1	0	13	53	51
18	Civics Learning provides value in using and managing information effectively and accurately to solve problems?	1	2	13	51	50
19	Civics Learning can choose the media and develop the media used to communicate?	3	3	14	55	43
20	Does Civic Education form civic competence in analyzing information media?	1	2	19	50	46
21	Civics Learning makes students wise in creating appropriate media to communicate?	2	1	22	52	41

Source: Primary data processed by researchers in September 2019

To produce the accuracy of the data described, the authors have tested the validity and reliability of the research

questionnaire about 21st century of the question items are all valid with t-count = from t-table which is as follows:

Table 2. The results of the validity test of 21st-century Civics Learning variables
N=30

Item	Correlation Coefficient	$n - 2$	$\sqrt{n - 2}$	$\frac{r}{\sqrt{n - 2}}$	$\sqrt{1 - r^2}$	t_{hitung}	t_{tabel}	inference
1	0,735	28	5,292	3,889	0,678	3,586	1,701	valid
2	0,735	28	5,292	3,889	0,678	4,502	1,701	valid
3	0,823	28	5,292	4,355	0,568	3,917	1,701	valid
4	0,747	28	5,292	3,953	0,665	5,275	1,701	valid
5	0,591	28	5,292	3,127	0,807	4,686	1,701	valid
6	0,861	28	5,292	4,556	0,509	4,712	1,701	valid
7	0,794	28	5,292	4,201	0,608	4,975	1,701	valid
8	0,645	28	5,292	3,413	0,764	5,964	1,701	valid
9	0,752	28	5,292	3,979	0,659	4,934	1,701	valid
10	0,763	28	5,292	4,037	0,646	3,015	1,701	valid
11	0,817	28	5,292	4,323	0,577	4,225	1,701	valid
12	0,722	28	5,292	3,820	0,692	5,702	1,701	valid
13	0,737	28	5,292	3,900	0,676	7,936	1,701	valid
14	0,810	28	5,292	4,286	0,586	4,138	1,701	valid
15	0,872	28	5,292	4,614	0,490	6,285	1,701	valid
16	0,816	28	5,292	4,318	0,578	4,989	1,701	valid
17	0,813	28	5,292	4,302	0,582	2,764	1,701	valid
18	0,875	28	5,292	4,630	0,484	7,080	1,701	valid
19	0,830	28	5,292	4,392	0,558	2,513	1,701	valid
20	0,735	28	5,292	3,889	0,678	4,063	1,701	valid
21	0,803	28	5,292	4,249	0,596	3,146	1,701	valid

Source: Primary data processed by researchers in September 2019

Result of Instrument Reliability of 21st Century Learning



Table 3. Test of Reliability

Reliability Statistics	
Cronbach's Alpha	N of Items
.967	21

From the output table above, there are 21 items (number of items of the questionnaire with a Cronbach Alpha value of 0.967. Because the Cronbach Alpha value is $0.967 > 0.60$, as the basis for decision making in the reliability test above, it can be concluded that all items of the questionnaire for the 21st Century Learning variable are reliable or consistent, or can be used as a data collection tool in research. Based on the results of research data, each question item to determine students' perceptions about citizenship education learning by integrating 21st Century skills is shown in table 1, dominated by answer items 4 and 5, indicating that to determine models and methods of learning civic education in the digital era, it needs to be integrated 21st-century skills into civic education learning models and methods.

21st Century Skills-Based Citizenship Education

The importance of 21st-century skills in civic education learning in the digital era is very much needed in the development of current learning models because integrating these skills can help students to develop their learning literacy. The skills that are meant as described by Trilling et al., (2009) which he calls the 21st-century skills, namely; Learning and innovation skills, which includes; critical thinking and problem solving, communication and collaboration, creativity and innovation, Information Media and Technology skills which include; information literacy, media literacy, and ICT literacy, then Life and Career Skills which includes; flexibility and adaptability, initiative and self-direction, social and cross-cultural interaction, productivity and accountability and leadership and responsibility.

To realize these competencies, it is necessary to organize through learning citizenship education with models, strategic methods in Schools and Universities. The model developed for the 21st century / digital era is creative, innovative, and solution, as stated by Hosnan, (2014, p. 87), there is a thinking and learning skill model, including a problem-solving skill model, a model of critical thinking skills (critical thinking skills), a collaboration model (collaboration skills) a model of communication skills (communication skills) and creativity skills (creativity and innovation skills). With this explanation, when absorbed in a learning model that experiences learning and is more contextual, this is clearly described as the results of research conducted by Komalasari (2017, 207) that can foster student skills (Civic Skills) in junior high schools in West Java around 97.99%. With experiential learning put forward by John Dewey in (Jenkins, Amelia, Sheehey, Patricia, 2009) it is based on two principles of experience theory (theory of experience), namely that humans are influenced by their experiences and humans are more adaptable through learning from experience (Kolb, 2008; McLeod, 2013). 21st-century skills (life and career skills, learning and innovation skills, as well as information and technology media skills) must be possessed by students in the rainbow scheme of 21st-century skills (21st-century rainbow skills) which shows that knowledge through core subjects is not sufficient, must be equipped creative-critical-innovative abilities, strong character (responsible, socially concerned, tolerant, productive and adaptive, etc.), and supported by the wise use of information and communication, can be described as follows:

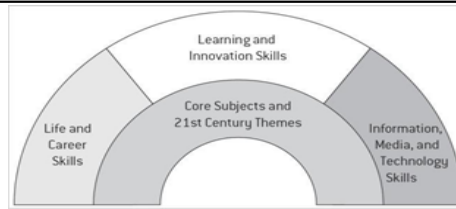


Figure 1. A Rainbow of 21st Century Knowledge-Skills.

Source: *Trilling & Fadel (2009)*

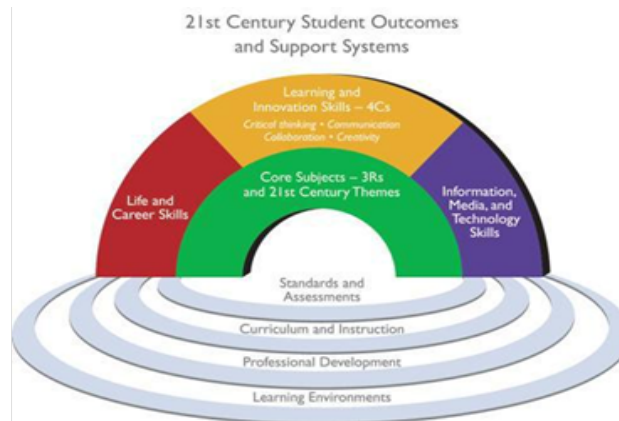


Figure 2. A Rainbow of 21st Century Knowledge-Skills adapted by P21

Source: www.p21.org

A description of the core subject 3R in the context of 21st-century skills, 3R is translated into life and career skills, learning, and innovation skills and information media and technology skills (Trilling & Fadel, 2009, p. 47) which will be integrated into learning indicators such as the elaboration in table 3 can be described as follows:

Learning and innovation skills

Learning and innovation skills (learning and innovation skills) include: (a) critical thinking and problem-solving/Critical Thinking and Problem Solving, (b) communication and collaboration/Communication and Collaboration, (c) creativity and innovation/Creativity and Innovation

Table 4. Learning and innovation skills

Competence / skills	Description
learning and innovation skills	Think critically and solve problems: students/students can use a variety of reasons (reason) such as inductive or deductive for various situations; use systems thinking; make decisions and solve problems. Communication and collaboration: students/students can communicate clearly and collaborate with other group members. Creativity and innovation: students can think creatively, work creatively, and create innovations.

Life and career skills

Life and Career skills include (a) Flexibility and Adaptability, (b) Initiative and Self Direction, (c) Social and Cross-cultural



Interaction, (d) Productivity and
Accountability, and (e) Leadership and
Responsibility.

Table 5. Life and Career Skills

Competence / skills	Description
<i>Life and career skills</i>	<p>Flexibility and adaptability: Students can adapt to changes and are flexible in learning and doing activities in groups.</p> <p>Have initiative and can manage themselves: Students/students can manage goals and time, work independently, and become students who can manage themselves.</p> <p>Social and intercultural interactions: Students/students can interact and work effectively with diverse groups.</p> <p>Productivity and accountability: Students can manage projects and produce products.</p> <p>Leadership and responsibility: Students/students can lead their friends and be responsible for the wider community.</p>

Information media and technology skills

literacy, and (c) Information and
Communication Technology literacy.

Information media and technology skills
include; (a) information literacy, (b) media

Table 6. Information media and technology skills

Competence/skills	Description
<i>Information media and technology skills</i>	<p>information literacy: students can access information effectively (sources of information) and efficiently (time); evaluate the information to be used critically and competently; use and manage information accurately and effectively to solve problems.</p> <p>media literacy: students can choose and develop the media used to communicate.</p> <p>ICT literacy: students can analyze media information, and creating suitable media for communication.</p>

Source: Primary Data Processed by Researchers in 2019

Based on this description, Citizenship Education in the 21st-century skills-based digital era According to Komalasari, (2020, p. 2) is; 1). Developing Indonesian citizens who understand, appreciate, and implement Pancasila and the 1945 Constitution of the Republic of Indonesia in everyday life, 2). Developing students' civic competences (civic knowledge, civic skills, and civic disposition) according to the demands of the applicable curriculum (Branson, 1999), 3). Developing Digital Citizenship (Principles and Elements of Digital Citizenship) by the current context in the digital era, namely: Respect: Respect Yourself/Respect Others, educate: Educate yourself/connect with others (Educate Your Self/Connect with

Others), Protect: Protect Yourself/Protect Others (Protect Your Self/Protect Others), (Ribble & Bailey, 2004, 2011).

Citizenship Education Learning in the Digital Age

In terms of achieving the goals and models of citizenship education learning in the 21st-century skills-based digital era as described above, it is necessary to learn civic education that strengthens Pancasila and the 1945 Constitution through action and adapting to the demands of the current digital era in building digital citizenship, as well as developing skills. 21st century. The importance of digital learning for civic



education can enhance student skills and is very effective in online learning. (Gleason & von Gillern, 2018).

There is value in integrating a digital civic education curriculum program in terms of fostering student experiences through real-life values, and student interests and engagement. All of this is influenced by the opinions of scholars from political science, communication, and education (Bennett, 2008; Tufekci & Wilson, 2012; Freelon et al, 2016; Greenhow et al, 2009) who recognize how networked communication technology (e.g., social media such as Facebook, Twitter, YouTube, Instagram, Snapchat, and others) support a new form of civic education that is increasingly participatory, driven by identity expression, and linked to changing conceptions of literacy, which will become a necessity for a new model of learning digital citizenship through social media. The management of digital learning in the 21st century is very effective, as stated by Heick (2018) recommends how to teach students in the digital era, where classroom management is needed to create competent students in the future. Some techniques are proposed, namely: 1) Digital Literacy & Research; 2) Moving from Standard to Habit; 3) Game-Based Learning & Gamification; 4) Connectivity; 4) Transparency; 5) Space and Place; 6) Self-Directed Learning & playing. To support the learning process by the values and norms based on Pancasila and the 1945 Constitution, Komalasari (2020: 4-5) should pay attention to and consider learning inputs including:

1. Raw input: The entry behavior of students in the digital era, namely Generation Z with all the characters attached to its identity. Santosa (2015) notes that there are 7 characteristics of Generation Z that are both opportunities and challenges, and of course require feedback or efforts by teachers to educate Generation Z according to their era and character. The seven characteristics of Generation Z include: 1) Having a big ambition to succeed; 2) Acting instantaneously; 3) love of freedom; 4) Confidence; 5) Likes details; 6) Desire for recognition; 7) Digital and information technology. The

seven characteristics of Generation Z, when associated with the 18-character values of the Ministry of National Education (2010), have intersections, where the characteristics of Generation Z have the potential to develop positively. Thus, teachers as education in schools should integrate character values according to the characteristics of generation Z in habituation activities in schools

2. Environmental input, input from the socio-cultural-economic-technological environment of a society that is fully digitalized
3. Instrumental input, namely a curriculum that integrates the demands of civic competencies, digital citizenship, and 21st-century competence, competent teachers using learning technology, books that can be accessed online (e-books), computer infrastructure, and internet networks in schools.

Furthermore, various kinds of civic education learning models in the 21st-century skills-based digital era, Komalasari, (2020: 5-9) are as follows:

1. Learning models for the development of life and career skills that are directed into the characters needed in the 21st century include; a) Learning values through living values education, which is a learning model that integrates the values of life in all components and stages of learning by observing the principles of living values education, which includes the following activities: 1) points of reflection; 2) imagining; 3) reflection/focus exercises; 4) artistic expression; 5) self-development activities; 6) cognitive awareness about social justice; and 7) incorporate values in culture (Tillman, 2000), b) Work-based learning is a learning model that allows students to use the workplace context to learn school-based subject matter and how it is reused in the workplace or the like and various activities combined with subject matter for the benefit of students. Work-based learning is an approach in which a workplace, or like a workplace, is integrated with classroom material for



the benefit of students in understanding the world of work-related (Depdiknas, 2003; Bern & Erickson, 2001; Komalasari, 2016), c) Service learning is a model that provides a practical application of developing new knowledge and skills for the needs of the community through projects and activities. Service-learning requires the use of learning strategies that combine community services with a school-based structure to reflect those services.

2. Learning models to develop 4C skills (Communication, Collaboration, Critical Thinking and Problem Solving, and Creativity and Innovation)
3. Learning models to develop the ability to use information and communication technology, including; digital learning and blended learning.

All the recommendations of the civic education learning model can be implemented in schools and colleges so that they can answer the learning needs desired in era 4.0.

CONCLUSION

Citizenship education in the face of the era of disruption must be adapted to the digital era by the demands of the 21st century which leads to strengthening Pancasila and the 1945 Republic of Indonesia Constitution to be implemented for students in developing civic knowledge, civic skills, and civic disposition both in school and in education. high. The integration of 21st-century skills can be done in learning materials and curricula for the learning needs of digital citizenship education. The 21st-century skills-based digital civic education learning models can be applied, among others; service-learning, problem-based learning, discovery learning, project-based learning, living value education and can be combined with digital learning and blended learning.

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