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CIVIC EDUCATION BARCODE MEDIA REVIEWED FROM 21ST CENTURY SKILLS LEARNING

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Abstract. *In this article, we will discuss the use of Civic Education barcode media in terms of 21st century skills learning. The use of Civic Education barcode media will be reviewed to see whether it can support the implementation of 21st century skills learning. Whether 21st century skills are already present in the use of Civic Education barcode media will be discussed, so it is hoped that their utilization can be achieved. can run optimally in the future if you have found the emphasis on 21st century skills.* *This writing was carried out using literature study. All skills contained in Skill 21 learning can be possessed by students if teachers are able to create learning that supports the implementation of 21st century skills. Teachers develop learning that contains activities that challenge students to think critically and solve problems. Learning activities must also encourage students to work together and communicate so that learning skills 21 are visible. In this article, we will discuss the use of Civic Education barcode media in terms of 21st century skills learning. The use of Civic Education barcode media will be reviewed to see whether it can support the implementation of 21st century skills learning. So it is hoped that its use can run optimally in the future if we have found the emphasis on 21st century skills.*

Keywords: *Civic Education, Media, Barcodes, Learning, 21st century skills*

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1. INTRODUCTION

In the educational process there is something called the learning and teaching process, the success of education can be seen from the learning process carried out because a student's learning behavior influences the continuity of learning. This teaching and learning process involves the role of students and educators who in the process have goals, the goal of education is to guide each child according to their nature so that they are able to achieve the highest safety and happiness both as a human being and as a member of society [1] .

Apart from that, the aim of education is based on the 1945 Constitution concerning the national education system, article 4, the aim of national education is to educate the life of the nation, and develop the Indonesian human being as a whole, namely a human being who has faith and devotion to God Almighty, has noble character, has knowledge and skills, physical and spiritual health, a stable and independent personality and a sense of social and national responsibility. In essence, education is an effort to produce a change in behavior, skills, abilities as well as increased knowledge and understanding of each student [2] . According to Rahman et al [3] students have the status of students in education. A student is someone who has physical and psychological potential, a developing individual and an individual who needs guidance and humane treatment.

The current development of technological life is proof that life is always developing and continues to innovate in various aspects. Education plays a role in creating the nation's next generation who are ready to face changing times. Education in the 21st century is student-centered learning, students are given the freedom to search for learning resources [4] .

In the current era of globalization, science and technology continue to develop and become more sophisticated. In line with this, the role of a nation that is ready for various changes and rapid progress in the future is needed. Therefore, the quality of education must be improved. Schools, which are educational institutions, are required to package learning that is in line with current needs, namely learning 21st century skills [5] .

In the 21st century, moral education is a need that must be met so that students will become superior individuals not only in the cognitive and affective fields but also affectively. Learning is also packaged in an innovative way, not monotonous with rote memorization methods like education in the previous century. Direct involvement can provide meaningful experiences for students. One of them is learning that involves more discussion activities among students, the use of varied digital-based media by utilizing sophisticated technology will become one of the trendy learning strategies in the 21st century [6] . According to Apriyani et al [7] the learning presented must be able to foster critical, creative attitudes and high level thinking in students. Teachers must also have skills that support their professional duties. Apart from media, the development of a PBL (Problem Based Learning) based learning model is one application of a model that is in line with 21st century learning.

The challenge of nation building in Indonesia in the 21st century, especially in the field of education, is to prepare a young generation who is flexible, creative and proactive. The young generation must be prepared to be skilled in solving problems, wise in making decisions, creative in thinking, communicative in discussions, and able to work efficiently both individually and in groups [8] . Trilling & Fadel in Santoso et al [9] argue that to navigate the challenges of the 21st century effectively, individuals must have the following skills: (1) Life and Career Skills, (2) Learning Skills and Innovation, (3) Information Skills and Media (Information Media and Technology Skills) The learning and innovation skills category includes three subcategories: critical thinking, problem solving, communication and collaboration, and creativity and innovation, also known as 4C skills. The 4C skills include critical thinking, creativity, communication, and collaboration [10] .

Critical thinking is a reflective and reasoned way of thinking that focuses on making decisions for the purpose of solving problems. Thinking ability. The benefits of critical thinking extend to all aspects of life, including the classroom, workplace, and everyday life. Ennis categorizes group critical thinking into five different aspects: (1) providing explanations, (2) developing basic skills, (3) making conclusions, (4) formulating further explanations, and (5) organizing strategies and tactics. The learning process should enable students to think critically by connecting their learning with real world problems and contextual aspects that exist in everyday life. Students will be able to apply their newly acquired skills in real-world contexts, reinforcing the importance of this learning. This will encourage them to utilize their abilities to solve the problems they face [10] .

In the 2013 curriculum there are changes, especially in Permendikbud number 20 of 2016. These changes relate to skills that are really needed by students. [11] . School involvement is needed to prepare students who have a number of skills needed in 21st century life. Every citizen is required to have abilities that can respond to the demands of current developments in order to play a meaningful role in the era of globalization in the 21st century.

To prepare Indonesia's future generations to be able to accept advances in information and communication technology which will certainly shape the social landscape of the 21st century, learning in Indonesia must be reoriented to reflect this reality. The concept of 21st century learning is, in fact, an inevitable consequence of the ongoing evolution of society. Teachers are facilitators, motivators and inspirers. In the contemporary era, digital development has reached a level of progress that makes teachers increasingly become secondary sources of information in learning. Therefore, educators must be able to act as facilitators and motivators for students, guiding them in pursuing and utilizing learning resources through advances in digital technology. Apart from that, this provides motivation for students to be more active in learning and looking for sources of information through technological developments.

The following characteristics of 21st century teachers were presented by Syahputra in Rosnani [12] 1) It is important for teachers to maintain a high level of interest in reading. We can easily imagine the consequences of a teacher's lack of interest in reading. It cannot be denied that the knowledge possessed by teachers will be outdated and exceeded by the knowledge of their students. This leads to the conclusion that the authority of teachers is reduced in the eyes of their students. 2) It is also important for teachers to have the ability to write scientific papers. Apart from the requirements mentioned above, teachers must also have the ability to write scientific papers. In carrying out their duties, teachers will always give various kinds of tasks to their students. In addition to other assignments, teachers may ask students to review books, journal articles, and write short essays. This requires teachers to be proficient in writing. 3) Teachers must be creative and innovative in teaching and learning approaches. Considering the demands of 21st century learning, it is very important for teachers to adopt creative and innovative approaches in the practice of learning models that can effectively build students' knowledge. The integration of learning models and digital technology will foster student creativity and innovation. 4). Teachers are able to experience a transformation in students' cultural views.

The role of educational institutions in forming the character of students is a dynamic and continuously developing concept. In creating superior human resources, schools play a very important role. They function as a forum for educators or teachers to disseminate knowledge, foster culture, and facilitate character formation in students.

The origins of change and transformation in educational institutions can be caused by two main factors: external and internal. To maintain its relevance, today's educational institutions must follow the direction of current developments and adhere to them. For this reason, the principle of openness is needed which is not reactive but prioritizes a proactive attitude in dealing with environmental dynamics. This is an inherent need for the Joesoef school organization in Satriawan [13] . Internal factors that drive change in schools include (1) relationship problems between school components, (2) problems related to work mechanisms, and (3) problems related to finances [13] .

As explained by Utari in Qulsum [14] , the dynamics in question originate from internal and external sources. The following schools were identified as experiencing pressure to change:

1) Encouragement to become more accountable.
2) Population changes.
3) Lack of human resources, both in terms of quality and quantity.
4) The processes carried out by members of the organization and the circumstances of the members of the organization themselves, which influence the running of the process.

The school transformation mentioned above can then be classified into several fundamental changes, as previously stated by Utari. These include structural changes, program changes, and changes in human resources (HR). In the 21st century, education has a number of responsibilities that are not easy to fulfill. One of these responsibilities is to produce quality output or workforce that is able to compete in the 21st century [15] . This can be achieved by implementing or equipping students with 4C competencies through superior programs at educational institutions in Indonesia. However, if studied more deeply, current conditions show that there are still many educational institutions that are unable to produce graduates who are ready to compete in the 21st century. This is because the Indonesian education system has not implemented a curriculum that is in line with the 4C competencies. On the other hand, his party still prioritizes mastery of the material over other skills. The goal of education remains the student's ability to memorize material and answer questions.

21st century skills are packaged in 21st century skills learning. In this learning, teachers play a role in developing students' *hard skills* and *soft skills* so that they can enter the world of work and be ready to compete with other countries. Teachers prepare all tools such as curriculum, Learning Implementation Plans (RPP) and models or methods that are integrated with 21st century skills learning. It is hoped that by developing 21st century skills in learning, each individual will have the skills to live in the 21st century with various opportunities and the challenges that will be faced in the era of technological and information progress. Several experts also explained the importance of mastering various 21st century skills as a means of success in a century where the world is developing quickly and dynamically [16] .

Students can have all the skills in Skills 21 learning if the teacher is able to create learning that supports the implementation of 21st century skills. Teachers develop learning that contains activities that challenge students to think critically and solve problems. Learning activities must also encourage students to work together and communicate so that learning skills 21 are visible.

In this article, we will discuss the use of Civic Education barcode media in terms of 21st century skills learning. The use of Civic Education barcode media will be reviewed to see whether it can support the implementation of 21st century skills learning. Whether 21st century skills are already present in the use of Civic Education barcode media will be discussed, so it is hoped that their utilization can be achieved. can run optimally in the future if you have found the emphasis on 21st century skills.

2. RESEARCH METHODS

This writing was carried out using literature study. Data collection using library research was carried out by searching for book sources and conducting journal research on the internet. The results of the discussion are written based on sources that the author believes to be accurate and credible sources. The case used as a comparison was taken from the *YouTube page* . The video is examined using the theory discussed previously.

3. RESULTS AND DISCUSSION

21st CENTURY SKILLS LEARNING

Learning skills in the 21st century currently prioritizes skills that will be developed in students. These skills are included in the 4C category, namely *communication* , *collaboration* , *critical thinking and problem solving* (critical thinking and problem solving), and *creativity and innovation* (creativity and innovation). All these skills must be visible in learning. Whatever media is used to support 21st century skills learning must contain the 4C skills component.

Communication **(Communication)**

Communication is the process of language exchange that takes place in the human world. Communication always involves humans both in intrapersonal, group and mass contexts. Muhtadi [17] explains that communication researchers have proven that until now language is recognized as the most effective medium for communicating in interactions between individuals such as counseling and coaching activities, teaching and learning processes, workplace meetings and so on [17] .

According to Arnyana [18] what is meant by "communication" is the skill of conveying thoughts, ideas, knowledge and new information to other people through various forms of expression, including verbal, written, symbolic, visual and numerical. These skills include the ability to listen effectively, obtain information, and convey ideas in front of many people. According to Maulidia et al [19] the purpose of communication is to facilitate a more comprehensive understanding of important matters between all parties involved. These skills can be trained in all educational institutions and in other institutions by providing opportunities for individuals to convey their ideas to others. The success of communication is determined by the extent to which the ideas conveyed can be understood and agreed upon by the audience.

Communicating means the development of speech and language that has emotional and social content, namely how communication sessions can take place in a reciprocal manner. Communication can occur in any scope, anywhere, and at any time because communication is very important for our lives. Everyone needs communication because with communication everything becomes easy to understand [19] . Communication brings together the communicant and the communicator. The communicant receives it while the communicator conveys the message. Interacting by communicating doesn't have to be with words but can also use body expressions such as smiling, winking, waving hands, you can also use the feelings in

one's heart. But the communication message will be received by the communicant if the communicant understands what the communicator is conveying [20] .

As times progress more rapidly, we need to know how to communicate effectively. Communicating effectively can make us less competitive with other countries. Effective communication is communication that is able to produce attitude change *in other* people which can be seen in the communication process. The goal of effective communication is actually to make it easier to understand the message conveyed between the communicator (information giver) and the communicant (information recipient) so that the language used by the communicator is clearer and more complete, and can be understood and understood well by the communicant. Another goal of effective communication is so that the delivery of information and feedback *can* be balanced so that monotony does not occur. Apart from that, effective communication can train the use of nonverbal language well [21] .

In the learning process, teachers must familiarize their students with communicating with each other both about lessons and other things, both with the teacher and with the students. The language used by students in communicating will have an impact on the students themselves. Using bad words in communication can have a negative impact. The message sent by the student cannot be received by the recipient of the message. This will trigger errors in receiving messages which can lead to misunderstandings or conflicts in interactions. According to Rosnaeni [12] the importance of effective communication cannot be overstated. The true manifestation of educational success is effective communication between educational actors so that it can improve the quality of education.

Effective communication is an important element in the learning process, because it is an indispensable tool for overcoming and resolving problems in the classroom environment. To implement this, it would be useful to ask students questions more often and encourage them to express their opinions and ideas through discussion forums (group work) or presentations. If technology is to be used, it is important to select technology that is most appropriate and easily accessible for teachers and students to use in discussions.

***Collaborative* (Collaboration)**

Several researchers have proven that students will learn better if they are actively involved in the learning process in small groups. Students who work in small groups tend to learn more about the teaching material and remember it longer than if the teaching material was presented in another form, for example a lecture, regardless of the teaching material [22] .

A learning includes collaborative learning if the group members are not certain or determined in advance, it can consist of two people, several people or even more than seven people. Warsono & Hariyanto [22] explained that collaborative learning can occur at any time, not necessarily at school, for example a group of students help each other with homework, collaborative learning can even take place between students from different classes or from different schools. Collaborative learning can be informal, that is, it does not have to be carried out in the classroom and learning does not need to be strictly structured.

From the opinion above, it can be concluded that collaborative learning is learning that involves students in a group to build knowledge and achieve joint learning goals through social interaction under the guidance of educators both inside and outside the classroom, so that meaningful learning occurs and students will interact with each other. appreciate the contributions of all group members. According to Rosnaeni [12] individuals are able to work together, compete synergistically with various parties, and be responsible for themselves, society and the environment. In this way , it will still be beneficial to the surrounding environment.

In the 21st century, collaboration has become an important aspect of business operations. This is visible in today's technology landscape, where collaboration between two or three parties is a fundamental aspect of business success. This includes online transportation businesses, online stores, and various other businesses that prioritize collaboration as a key factor in business management. This trend will likely continue, and our students will hopefully be able to navigate this reality in the future.

In light of these developments, it is critical that we prepare our students for these situations, as their future professions will inevitably be shaped by collaboration. One method of initiating collaboration in the learning process is through the use of project-based learning. This method requires students to collaborate with each other to work on a project that has been determined by the teacher. It is also important to note that communication will be a key aspect of this process, as students will present the results of their projects to their teachers and peers once the projects are completed. In implementing this methodology, the role of educators will be very important, namely as a facilitator during the learning process, both at the preparation

and implementation stages. This approach promises to have a major impact on students' readiness for their transition into society [23] .

Students must be accustomed to collaborating with other people. Collaborate with people who are different in cultural background and the values they adhere to. When exploring information and building meaning, students need to be encouraged to collaborate with friends in their class. When working on a product, students need to learn how to appreciate each person's strengths and abilities and how to take on roles and adapt appropriately to them.

Critical Thinking and Problem Solving **(Critical Thinking and Problem Solving)**

Every human being has *the skill* to think because this is a natural trait that is carried out at all times in all life activities. Thinking is divided into several levels starting from the simplest which only requires memory and up to the highest level and requires reflection. This level of thinking also has its own concept or characteristics depending on what is being thought about. Critical thinking is a directed and clear process used in mental activities such as solving problems, making decisions, persuading, analyzing assumptions and conducting scientific research. Critical thinking is the ability to argue in an organized way. Critical thinking is the ability to systematically evaluate the weight of personal opinions and the opinions of other people [24] .

Those who are skilled at critical thinking are also able to explore multiple perspectives and challenge the status quo. Students are not limited by systems that limit their intellectual growth and scope of understanding. In addition, those who are critical will be able to evaluate arguments and identify evidence that supports or refutes an opinion. These capabilities make education an optimal place for change. Dewey & Fisher (2009) in Tanty et al [25] explain that critical thinking is essentially an active process where someone thinks about things in depth, asks questions for themselves, finds relevant information for themselves rather than accepting things from other people. . Johnson (2009:185) argues that the goal of critical thinking is to achieve deep understanding. Apart from that, Faiz (2012) in Tanty et al [25] explains that the goal of critical thinking is simple, namely to ensure that as far as possible our thinking is valid and correct. With critical thinking skills, students will be able to solve the problems they face. One cannot learn well without thinking well. Critical thinking is related to career success and higher education.

The learning process allows for the training of students in a variety of ways , depending on how educators design their instruction. For example, an instructor might present four pictures of objects that facilitate learning, then ask students to choose one of the pictures and provide detailed reasons for their choice. Another approach is to create questions with multiple correct responses, thereby familiarizing students with the act of offering answers from multiple points of view.

This approach indirectly shapes students' critical thinking abilities by encouraging them to consider alternative perspectives and points of view. This is different from traditional education, which often emphasizes choosing one correct answer. In an environment like this, differences of opinion are often seen as mistakes, even though each individual has a different point of view. There are many methodologies for cultivating critical thinking in students, depending on the extent to which the instructor applies these techniques according to the course material.

Creativity and Innovation **(Creativity and Innovation)**

Lawrence in Septikasari [26] explains that creativity is an idea or human thought that is innovative, effective and understandable. Creativity is the ability to produce new forms in the field of art or art, or in solving problems with new methods. Suratno (2005) in Septikasari [26] explained later that creativity is an imaginative activity that manifests (embodies) the ingenuity of the mind which is capable of producing a product or solving a problem in its own way.

In their research in 1988, Marzano and colleagues identified four dimensions of creative thinking skills: (1) Fluency is indicated by the number of ideas, answers to questions, or problem solutions that can be generated in a relatively short time. (2) Flexibility is the ability to consider a problem from various points of view, which makes it possible to produce solutions from various approaches or offer various alternatives. (3) Originality is the ability to produce something new and different from existing solutions. Authenticity in creativity is the result of personal expression that is unique and rarely shared by other individuals. Furthermore, description (elaboration) is a cognitive process that enriches and develops ideas, products, objects or situations with various variations, thereby increasing interest. By understanding the dimensions of creative thinking, these cognitive skills can be measured and trained. This exercise challenges students to think in ways that deviate from existing norms, examining a problem from various points of view to produce diverse solutions over time [24] .

This is an illustration of the concept of creative thinking, where the learning experience becomes more meaningful and interesting for students. For example, one can design collaborative projects that motivate students to work together to solve problems or design innovative solutions. As a teacher, one can also give students greater control over their learning by offering them the option to choose the topics they want to learn and the way they present the assignments [15] .

According to Rahmawati & Kurniati (2010) in Mashudi [16] The creative process will only occur if it is generated through problems that stimulate five types of creative behavior as follows: 1) *fluency* , namely the ability to express similar ideas to solve a problem, 2) *flexibility* , namely the ability to produce various kinds of ideas to solve a problem outside the usual categories, 3) *originality* , namely the ability to provide a unique and extraordinary response, 4) *elaboration* (detail), namely the ability to state the direction of the idea in detail to turn the idea into reality, 5) *sensitivity* , namely the sensitivity to perceive and produce problems in response to a situation. Rahmawati & Kurniawati (2010) in Mashudi [16] then explained that children's creativity can develop well if it is supported by several factors such as the following: 1) providing good mental stimulation, 2) creating a conducive environment, 3) the role of teachers in developing creativity , and 4) parental participation.

In the contemporary digital era, students must cultivate creativity and innovation. To become agents of change, students must utilize technology. The careful application of analysis, research and planning can provide the foundation for sustainable development, with creative abilities playing a particularly important role. Therefore, in the learning context, it is very important to provide as wide an opportunity as possible for students to express their ideas. The responsibility of educators is to act as a facilitator and provide a nurturing environment for students to thrive in creativity and innovation [27] . Innovation is an idea, item, event, method that is perceived or observed as something new for a person or group of people (society), whether in the form of invention or discovery. Innovation is held to achieve certain goals or to solve certain problems .

UTILIZATION OF CIVIC EDUCATION BARCODE MEDIA REVIEWED FROM 21ST CENTURY SKILLS LEARNING

In learning 21st century skills, teachers must motivate students to follow the learning process well. 21st century skills called 4C are skills that students must have to prepare for the 21st century. Therefore, interaction between teachers and students must always continue so that nothing is left behind.

Linking something in line with the characteristics or characteristics of learning in the 2013 Curriculum, as stated in Minister of Education and Culture Regulation Number 103 of 2015, then the characteristics of 21st century skills learning can be described as follows: 1) centered on students; teachers must listen more to their students interacting, arguing, debating and collaborating; The teacher's function from being an instructor changes automatically to being a facilitator. 2) the learning mechanism must have sufficient multi-directional interaction in various forms of communication and use various contextual learning resources according to the learning material; Teachers must try to create learning through various approaches or methods and learning capital, especially the use of ICT. 3) students are advised to be more active by asking various questions and carrying out investigations, as well as expressing ideas, both verbally, in writing and in action. 4) the learning activities developed must be able to facilitate students to be able to work together with each other (collaborative and cooperative). 5) all competencies (Core Competencies 1-4) must be taught in an integrated manner in a subject, so that students have complete competencies. 6) learning must pay attention to the characteristics of each individual with their own uniqueness, so that teachers can prepare appropriate learning (normal, remedial, enrichment). 7) teachers must be able to motivate students to understand the interconnections between concepts, both in their subjects and across subjects, as well as their application in the real world. 8) in accordance with the character of 21st century education (4C), the learning developed must be able to encourage students to develop higher thinking skills (*Higher Order Thinking Skills* = HOTS) [28] .

High-quality teachers are those who have a strong influence on student achievement. Even though technology in the digital era is developing very rapidly, the role of teachers and education staff still has a central role, no matter what the concept of education is. The role of teachers in the 21st century must move from the "knowledge cultivator" pattern, towards the role of guide, discussion director and measurer of student learning progress [29] .

Next, we will look at learning 21st century skills in the use of Civic Education barcode media. The relationship between the two is seen based on the 4C skills as follows:

1. *Communications*

Good communication skills are a very valuable skill in the world of learning and students' daily lives. Communication skills include skills in conveying thoughts clearly and persuasively orally and in writing, the ability to convey opinions in clear sentences, convey orders clearly, and be able to motivate others through speaking skills.

Students with good communication skills express their thoughts or ideas to their peers, teachers and the school environment. When using Civic Education barcode media, students are directed to search for information stored in the barcodes that have been provided. Students are divided into several groups. It can be said that there are quite a lot of barcodes distributed so that students have to divide their group members to find information. The information that has been obtained is presented in groups to be able to answer the evaluation questions that have been provided by the teacher. The process of conveying information between group members can be categorized as communication skills. They communicate with each other until they get the answers they need.

2. *Collaboration*

Collaboration and working together can be developed through students' experiences within schools , between schools and outside schools. Students can work together collaboratively on authentic project-based assignments and develop their skills through peer tutoring in groups. Collaboration is a 21st century learning skill *trend* that shifts teacher-centered learning to collaborative learning. Collaborative learning environments challenge students to express and defend their positions, and generate their own ideas based on reflection. They can discuss conveying ideas to their friends, exchanging different points of view, seeking clarification and participating at levels of thinking such as managing, organizing, critically analyzing, solving problems and creating new, deeper learning and understanding.

When using Civic Education barcode media, students are directed to find various information and clarify it. The group system used in this learning allows students to develop collaboration skills even though they are not yet 100%. This collaboration skill can be recognized when students have received the various information they need and they have to combine this various information into one evaluation that has been prepared by the teacher. Their thoughts were collaborated in one article. This writing is the final result of the collaborative information that each group member received.

3. *Critical Thinking and Problem Solving*

This skill is a fundamental skill in 21st century skills learning. Critical thinking skills include the ability to access, analyze, synthesize information that can be learned, practiced and mastered. Critical thinking skills also describe other skills such as communication and information skills, as well as the ability to examine, analyze, interpret and evaluate evidence. In the era of digital literacy where the flow of information is very abundant, students need to have the ability to select relevant sources and information, find quality sources and evaluate sources from the aspects of objectivity, reliability and up-to-dateness.

Problem solving skills include other skills, such as identification and the ability to search for, select, evaluate, organize and consider alternatives and interpret information. A person must be able to find various solutions from different points of view, in solving complex problems. Problem solving requires teamwork, effective and creative collaboration from teachers and students to be able to involve technology and handle very large amounts of information, be able to define and understand the elements contained in the main problem, identify sources of information and strategies needed to solve problems. Problem solving cannot be separated from critical thinking skills because critical thinking skills are fundamental skills in solving problems. Students must also be able to apply the right tools and techniques effectively and efficiently to solve problems.

In the use of Civic Education barcode media, critical thinking and problem solving skills are also visible in it, although not very clearly visible. Students are required to be able to analyze and criticize the information obtained before collaborating. History also emphasizes criticism of the sources obtained. This criticism also contains a very high aspect of critical thinking. Apart from critical thinking skills, problem solving skills are also visible in the use of Civic Education barcode media. This can be seen in how students try to find the best way to work efficiently, such as by dividing the tasks of searching for information and working on evaluation questions.

4. *Creativity and Innovation*

Delivering professional and personal success requires innovation skills and a creative spirit. Creativity and innovation will develop more if students have the opportunity to think divergently. Students must be stimulated to think outside the box, engage in new ways of thinking, have opportunities to present new ideas and solutions, ask unusual questions, and try to propose answers.

Individual success is achieved by students who have creative skills. Innovation is a continuation of the creativity that is built.

In the use of Civic Education barcode media, creativity and innovation skills are already visible. The use of barcodes as a learning support media can be said to be new creativity and innovation. Teachers try to take advantage of technology that is currently developing where access to information is more concise and easier using barcodes. Students can also use their *smartphones* for things that are useful and support students .

4. CONCLUSIONS

Learning skills in the 21st century currently prioritizes skills that will be developed in students. These skills are included in the 4C category, namely *communication* , *collaboration* , *critical thinking and problem solving* (critical thinking and problem solving), and *creativity and innovation* (creativity and innovation). All these skills must be visible in learning. Whatever media is used to support 21st century skills learning must contain the 4C skills component.

The use of Civic Education barcode media in terms of 21st century skills learning can be said to be appropriate. In using this media, the 4C skills are already visible in it, even though they are not yet fully visible and optimal. This is also a good first step in implementing 21st century skills learning which was previously still unknown.

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