Implementation Project Citizen Model Based on Pop-Up Books in Civics Education Learning

Pipid Mupidin[1*], Dadang Sundawa[2], Iim Siti Masyitoh[3]

[1,2,3] Departement of Majoring in Civic Education, Indonesia University of Education, Indonesia

Abstract: The purpose of this research is to determine the effect of learning models. Project Citizen is based on a Pop-up Book on students' critical and creative thinking abilities in Civics subjects. This type of research is quantitative research in the form of a Pre-Experimental Design with a group Pretest-Posttest type. The sample for this research was 12th grade MIPA 2 students at SMA Pasundan 2 Cimahi City, totaling 32 students. Two types of instruments were used in this research, including observation sheets and critical and creative thinking skills tests. Validity test uses Pearson correlation and reliability testing using Cronbach's alpha. The research results show that Project Citizen's learning model is based on a Pop-up Book on students' critical and creative thinking abilities.

INTRODUCTION

The 21st century is typically identified as an era of openness or globalization, reflecting fundamental transformations in human life that are substantially different from life patterns in previous centuries. This phenomenon creates fundamental changes reflected in the order of life, marking a period where social, economic, and cultural changes become more dynamic and globally interconnected. This is in accordance with the opinion of Mardhiyah et al. (2021) who said that the presence of the 21st century was marked by the Industrial Revolution 4.0, which made this period an era of openness or globalization. One of the potentials emerging in the 21st century is increasing public attention to knowledge. This statement is supported by the views of Soh, Arsyad, and Osman. (in Pratiwi et al., 2019) who indicate that the 21st century reflects a significant transformation from an agrarian society to an industrial society, which then continues to become one that highly values knowledge. The 21st century naturally demands quality human resources to be able to compete and survive amidst the complexity of the challenges of the times. In facing global dynamics, individuals need to have 21st-century skills, or the 4Cs, which consist of critical thinking and problem-solving, creativity and innovation, communication and collaboration. Various efforts can be made to obtain 21st-century skills, one of which is through education.

Education is a process that relies on learning experiences through student interaction with learning materials, teachers, and the surrounding environment. According to Suyono and Hariyanto (in Maidah et al., 2022), learning is an activity or a process to gain knowledge, improve skills, improve behavior and attitudes, and strengthen personality. Education in the 21st century faces increasingly complex and dynamic demands, requiring changes in the learning paradigm to be able to form students

who are resilient and ready to face future challenges. This is in accordance with what was stated by Xu et al. (2018) Era education is now required to change all systems from traditional systems to modern systems. In the context of 21st-century skills, per Law No. 20 of 2003 concerning the National Education System in Indonesia, education is directed at empowering students with various skills, including the ability to think critically, creativity, communication, and collaboration. This is because all these skills will later be used to survive and overcome Jia's complex global challenges et al., Greiff & Kyllonen (in Purwanti et al. 2022). This emphasis on skill development is in line with the principles of the national curriculum, which emphasizes holistic education, aiming to create students with intellectual intelligence and emotional and social intelligence. According to Meilani & Aiman (2020), learning in the 21st century combines cognitive, affective, and psychomotor abilities, as well as knowing how to use ICT. This learning uses a scientific approach based on learning skills and 4C innovation. Therefore, it is necessary to update the quality of learning towards a better direction. This renewal process involves improving teaching methods, integrating educational technology, and adapting curricula to ensure students can develop skills relevant to modern needs. This renewal of learning quality also includes a more student-oriented approach, encouraging creative exploration, critical thinking, effective communication, and collaboration skills.

According to Maulana (2019) Civics Education is part of the formal education curriculum which aims to develop moral attitudes in students, with the aim that they can form positive character and personality, in accordance with the principles of Pancasila values. Apart from that, Civics subjects have a mission to create citizens with 21st-century skills, especially critical and creative thinking skills, per Minister of National Education Regulation Number 22 of 2006 concerning Content Standards. It is important to know that critical and creative thinking skills are two fundamental aspects in developing individual intellectual abilities. Critical thinking involves analyzing, evaluating, and constructing arguments rationally. This is in line with the opinion of Krulick and Rudnick (in Suarsana, 2013) who say that critical thinking skills are recognizing relevant facts, identifying limitations, assumptions, or special things related to the method applied, and determining appropriate answers. rational. While creative thinking involves the ability to generate new ideas, innovative solutions, and fresh approaches to problems. According to Harriman (2017) creative thinking is thinking that tries to create new ideas. Creative thinking is a skill that allows someone to solve problems, formulate concepts, and create something new in a learning context. This is reflected in fluency, flexibility, and originality in thought processes and interactions (Munandar in Yasiro et al., 2021). Critical and creative thinking skills are essential for students because they equip them to analyze information deeply and stimulate innovation and creative solutions in dealing with various learning situations and challenges. These two skills not only enhance intellectual capacity, but also form a solid foundation for the development of independent thinking and effective problem-solving abilities.

However, teachers currently use conventional learning methods in their learning activities. According to Nuranisa et al. (2020) which states that the use of conventional methods in their implementation does not require a long time, but this method is considered less effective in encouraging students to actively learn and causes boredom, making it difficult for students to understand the subject matter being taught. The Civics Education learning process must be able to provide critical and creative thinking skills to each student. Therefore, Civics Education needs to be designed carefully to accommodate skills development, one of which is choosing the right learning model. According to Komalasari (2010) A learning model is a strategy used to organize the curriculum, design learning materials, and direct the learning process in the classroom. A Civics Teacher needs to use a learning model that stimulates students to question, analyze, and create a deep understanding of democratic values, human rights, and citizenship. The learning process can become more interactive and challenging by providing space for discussions, collaborative projects, and reflective assignments. In addition, holistic and formative assessments need to be implemented to measure students' progress in building their critical and creative thinking skills. One of the appropriate learning models to make this happen is the Project Citizen learning model. The selection of the Project Citizen learning model is based on the characteristics of this learning model, which focuses more on developing students' critical thinking skills (Astuti & Sahono, 2022).

Project Citizen Model supports the four characteristics of Civics Education teaching: learning to create, learning to know, learning to be, and learning to live together (Priyanto & Thambu, 2021). According to , Project Citizen learning model can support students in understanding the principles of supervision and their impact on public policy while honing the skills needed for them to become effective and responsible citizens. The Project Citizen learning model is very good if it uses learning media that is popular with today's generation. According to Munadi (2008), learning media are various means used to convey and channel information from sources that have been prepared in a planned manner, thereby making the learning process run efficiently and effectively. Furthermore, according to Suryani et al. (2018), Learning media is an instrument in teaching and learning activities that aims to stimulate students' thoughts, emotions, attention, and abilities or skills to facilitate and encourage the learning process. Media can support habit formation, inspire opinion formation, stimulate thinking about subject matter, and create a strong level of attention to the learning delivered by the teacher (Afnita et al., 2014). One of the interesting learning media is the pop-up Book. According to Dzuanda (in Nabila et al., 2021) Pop-up book is a book with moving parts or 3 dimensional elements and provides an interesting visualization of the story, starting from the display of images that can move when the page is opened. According to Anjarwati et al. (2022), Pop-up books have great potential to attract the interest of many students because of the uniqueness and interactiveness of their design. The interest that arises from using pop-up books can trigger the development of student creativity. This is in accordance with Safri et al. (2017). Pop-up Book media is considered attractive to students because it has a unique visual appeal. This book can present visualizations with shapes created through folding, moving, and emerging techniques, providing an experience of surprise and awe when students open it. Thus, the Pop-up Book-based Project Citizen learning model is a learning approach that combines the Project Citizen concept with Pop-up Book elements, creating a unique and engaging learning experience.

Through the implementation of the Pop-up Book-based Project Citizen in Civics learning, students not only learn about the principles of citizenship and democracy but are also invited to design and create Pop-up Books that reflect their understanding of social and civic issues. According to Budimansyah (in Gumelar et al., 2023) describes the framework of Project Citizen steps as follows: Problem Identification, Problem Selection, Data and Information Collection, Class Portfolio Development, Class Portfolio Presentation (Showcase), and Reflection on Learning Experiences. In the learning process, students are expected to follow each stage of Project Citizen carefully. Uniquely, the portfolio produced in this context is not like a conventional portfolio but is in the form of a pop-up book so that it can add a creative and interactive dimension to students' expressions in presenting information and solutions to the issues they identify. This approach provides a new nuance to the teaching of Civics and Citizenship, combining the Project Citizen method with media that inspires student creativity. From this explanation, the author feels interested in contributing to the world of education through more up-to-date and innovative research. The research in question is entitled The Influence of the Pop-up Book-Based Project Citizen Model on Increasing Students' Critical and Creative Thinking Abilities in Civics Learning

METHOD

The research method applied was a pre-experimental method using a one-group pretest-posttest design research design Sugiyono (2014). In the structure of this research, the experimental group underwent an initial evaluation (pretest) before participating in the learning process and then underwent a final evaluation (Posttest) after receiving treatment in the form of Project Citizen learning using Pop-up Book media. The research scheme with a one-group pretest - posttest design can be found in Table 1.

Table 1. One-Group Scheme Pretest - Posttest Design

Class	Pretest	Treatment	Posttest
Experiment	O_1	X	O_2

Information:
O_1 : Initial test (pretest)

X : Treatment (Treatment)

0_2 : Final test (Posttest)

The population in this study was class XII SMA Pasundan 2 Cimahi City. The sample was taken from one of these classes, namely class XII MIPA 2, with a purposive sampling technique. This research's Independent Variable (X) is Project Citizen based on Pop-up Book. This research's dependent or dependent variable (Y) is increasing critical thinking. Comparing conditions before and after implementing a new method or with a group that has used the old method is a characteristic of experimentation (Sugiyono, 2015). This research used two types of instruments, including an observation sheet to measure the implementation of the Pop-up Book Based Citizen Project in Civics learning and a critical and creative thinking skills test instrument in the form of a description. Test the validity of the essay test instrument by expert examiners, followed by reliability testing which must be carried out before the instrument ability test Critical and creative thinking is applied to students. The increase in critical thinking skills was analyzed descriptively using the n-gain equation, and the difference in critical thinking skills in the pretest and posttest using the paired t-test which was preceded by a normality test.

RESULT AND DISCUSSION

Civics education learning by adopting a pop-based Project Citizen approach book was carried out in five meetings, with a material focus on understanding the rights and obligations of citizens. The learning process is divided into 6 steps, including:

Identify problems that exist in society

The process of identifying problems in Project Citizen learning is carried out in one meeting, where students are divided into 4 groups. In this activity, each group of students is given the task of determining the problem that will be addressed in their citizen project. The issues raised must relate to the rights and obligations of citizens.

Figure 1. Problem identification activities

Selection of problems as the focus of study in groups

The problem selection activity was carried out at the second Civics Education learning meeting. In this second stage, each group explains the identification of problems that have been carried out regarding the rights and obligations of citizens in Indonesia. Some of the problems that these groups have identified include serious issues such as drug abuse, bullying, brawls between students, and underage motorbike use. Next, each group chooses one problem that has been explained previously. The problem selection process is carried out democratically with the agreement of all groups.

Figure 2. Student activities explain the problem that will be raised

Gathering information data related to the problem that is the focus

At the third meeting, students gathered information with their groups. The information that must be available is the background to the problem occurring, what policies or efforts have been made to overcome the problem, and why the problem cannot be resolved. Apart from that, the group makes a new policy proposal to overcome this problem and plans what actions will be taken regarding the policies that have been proposed by the group. Students can collect information from anywhere, such as books, modules, articles, etc.

Figure 3. Student activities in collecting data and information

Creating a class portfolio

Next, at the fourth meeting, students began to develop and work on a portfolio, which would be made in the form of a Pop-up Book. In this case, the created pop-up Book must contain 4 sections. The first part explains the problem, the background of the problem, and the importance of the problem as material for study. The second part explains alternative policy problems that become material for class study. The third part contains alternative policy proposals that have been agreed upon by the group. The fourth section explains future work plans so that problems do not occur again.

Figure 4. Development and Creation of Pop up Book Portfolio

Portfolio presentation (showcase)

At the fifth meeting, all groups made presentations on the pop-up Book (portfolio) that had been created. Each group member takes turns explaining parts of the Pop-up Book starting from the background, alternative policies, class policy proposals, to action plans. After that, other groups responded and asked questions about the pop-up Book (portfolio) that had been presented.

Figure 5. The group presents the Pop up Book (portfolio) they have created

Deposition study of the learning experiences carried out (reflection)

After all groups had finished making portfolio presentations, The final step, the teacher and students conclude the problems of cases of violations and denial of the rights and obligations of citizens in Indonesia. Thus, the entire series of implementation of the Pop up Book- based Project Citizen model has been completed.

Based on the pretest results of students' critical thinking abilities, the lowest score was 21.5, the highest score was 6 9.6, and the average was 4 6.2. The posttest results for students' creative thinking abilities showed the lowest score was 76, the highest score was 96, and the average was 86.4. The data on the pretest and posttest results of students' critical thinking abilities is presented in the following table:

Table 2. Pretest & Posttest Results of Students ' Critical Thinking Ability

	N	Minimum	Maximum	Average
Pretest	32	21.5	69.6	46.2
Posttest	32	53.9	95.1	86.4

Based on the pre-requisite test, the pretest-posttest results are normally distributed because calculating the pretest results using Kolmogorov-Smirnov gets a value of 0.021 α. To calculate the one way anova homogeneity test, the results showed that the pretest - posttest were considered to have the same variant (homogeneous). Parametric statistical tests are used to test hypotheses using the t-test. Based on the results of the t-test, it was found that the significance value was 0.031, which was smaller than 0.05 (0.000). Therefore, it can be said that there is a significant increase in students' critical thinking abilities.

In this study, to measure the creative thinking ability of participants, Guilford Alternate Use was used. This test covers components of creative thinking abilities, including originality and elaboration. The following are the results of students' creative thinking ability tests during the pretest and posttest along with the N-gain scores:

Table 3. Pretest & Posttest Results of Students' Creative Thinking Ability

Criteria	Pretest	Posttest	Gains	N-Gain
Average	40	83	44	0.80
Maximum Value	61	96	60	0.93
Minimum Value	30	80	30	0.60

Based on the data and research results from the table, it can be seen that the calculation of the average value obtained from the pretest results is 39, the average posttest result is 83, with an average increase of 38 so that the N-Gain is 0.80 which shows an increase with the criteria.

Data on student learning outcomes is obtained from the results of Gain calculations, which are then analyzed using a normality test to determine whether the data is normally distributed. The data calculated in the normality test uses N-Gain data using a significance level of 5%. Based on the

calculation results, the χ^2count value is 3.9 7 < χ^2table 7.92. This shows that the data is normally distributed. Normality test result data can be seen in the table below:

Table 4. Normality Test Results

Data	χ^2count	χ^2table	Information
N-Gain	3.9 7	7.92	Normally Distributed Data

Normality test, it is known that the data is normally distributed, so hypothesis testing is carried out using the Z Test calculation so that it is known whether the hypothesis is accepted or rejected. A summary of the Z Test calculation results can be seen in Table 4 below:

Table 5. Z Test Results

The number of students	Z_{count}	$Z_{table\ (\alpha=0.5)}$
32	3.26	1.66%

The results of calculating the hypothesis test using the Z test at a significance level of 5% showed that $Z_{calculated}$ 3.2 6 and Z_{table} 1.66, therefore Z calculated > Z table so the research hypothesis was accepted. This means that there is an influence of implementing the Pop-up Book-based Project Citizen learning model on students' critical and creative thinking abilities.

Next, creative thinking indicators were analyzed to see the effect of implementing the Pop-up Book-based Project Citizen learning model in Civics learning.

Table 6. Analysis of Creative Thinking Indicators

Aspect	Indicator	Pretest	Posttest	N-Gain
Originality	Solve problems with your own ideas i	36	81	69
	Troubleshoot by performing detailed steps	32	77	64
Elaboration	Develop or enrich other people's ideas	60	94	79

The table shows that the indicator of creative thinking in the elaboration aspect with the indicator Developing or enriching other people's ideas has a high N-Gain category, while in the originality aspect the indicator is Solving problems with one's own ideas, and in the elaboration aspect the indicator is Solving problems by carrying out detailed steps has a medium N-Gain category.

Based on the results of research that has been carried out using the Pop up Book -based Project Citizen learning model in class, This effect is proven by the N-Gain value and is in accordance with the results of hypothesis testing with the Z test at the 5% significance level that Z_{count} > Z_{tabel}. This shows that the hypothesis is accepted or that the application of the pop-up book-based Project Citizen learning model is influential in improving students' critical and creative thinking skills.

The influence of implementing the Pop up Book -based Project Citizen learning model on students' critical and creative thinking abilities can also be seen from the results of the average post-test score greater than the Pretest; this shows that there is an influence after learning using the learning model Project Citizen is based on Pop-up Books on students' critical and creative thinking skills in Civics learning. This is in accordance with research conducted by Fajri, et al. (2021) states that the learning model Project Citizen can improve 21st-century skills, including students' critical and creative thinking abilities. Apart from that, integrating pop-up books as a portfolio presentation medium also increases students' creative thinking abilities. This is in accordance with research conducted by Sundari, et al., (2023), which states that Pop-up book media is a creative and interactive learning tool that combines text with visual elements in the form of images that appear in three dimensions, stimulates imagination, and increases understanding of concepts overall.

Pop-up Book-based Project Citizen learning model is an approach that combines aspects of critical thinking, creativity, and active participation of students in designing and delivering creative solutions to

community problems through the use of pop-up techniques in books, providing an in-depth and interactive learning experience. Thinking abilities need to be developed in the learning process because they are the main basis for enabling students to analyze information, solve problems, and develop essential skills for dealing with various situations in everyday life. This is in accordance with the opinion of Ulfah et al. (2018) who said that it is important to hone and develop students' critical thinking skills to carry out analysis and solve problems, both in the learning context and in community life. The same thing was also expressed by Nurhiayah et al. (2019), who said that providing teaching to students to develop critical thinking skills will encourage students to think without prejudice or neutrally, based only on logical reasons, and give rise to strong motivation to follow the accuracy and clarity of the information obtained. Apart from that, creative thinking skills in learning are also important because they encourage innovation, the discovery of new solutions, and the development of original ideas which stimulate students' intellectual growth. Creative thinking is a combination of logical and divergent thinking, which is rooted in intuition but is still done consciously. Critical thinking and creative thinking are interrelated, complementing each other to produce deeper and more innovative thinking.

Project Citizen learning model, with the activity of designing a portfolio in the form of a Pop-up Book , students are not only asked to conceptualize ideas creatively but are also invited to explore a deeper understanding of the social issues raised. This process requires critical thinking in evaluating information, understanding the impact of proposed solutions, and constructing arguments that support their views. Thus, using pop-up Books in Project Citizen enriches the visual experience and shapes students' critical thinking patterns, preparing them to face complex challenges in learning and everyday life. The Project Citizen learning model directs students to become active and responsible citizens by involving them in identifying, analyzing, and solving community problems through a participatory democratic process. This is in accordance with the opinion of Budimansyah (2009) who said that Project Citizen is learning that focuses on problem-solving to develop knowledge, skills, and character as democratic citizens, facilitating and encouraging active participation in government and civil society. Apart from that, the Project Citizen model will stimulate creativity and eliminate restrictions on teachers and students. With this model, both teachers and students can participate flexibly in the process without any rigidity (Adha, 2021).

The pop-up book-based Project Citizen learning model is a very appropriate choice for civics education (civics education). The reason is its ability to provide essential skills to face the challenges of the 21st century, especially critical and creative thinking skills. According to Maftuh & Sapriya (2005) Civics learning aims to ensure that every student becomes a quality citizen (to be a good citizen). This is in line with the opinion of (Cohlisin, 2016) who says that good citizens are those who have the awareness to carry out their rights and obligations proportionally. Awareness of the rights and obligations of every citizen can shape that individual into someone who thinks critically, actively participates, and is responsible. By combining the Pop-up Book-based Project Citizen Model in Civics Education learning, students not only learn about the values of Pancasila but are also invited to become active agents of change in society, forming character and character as citizens who participate in nation-building. In this way, learning becomes more dynamic and relevant and supports the formation of skills needed in this global era.

CONCLUSION

From the discussion above, it can be concluded that the use of the Pop-up Book- based Project Citizen model can effectively improve students' critical and creative thinking skills in learning Pancasila and Citizenship Education (Civics Education). This approach allows students to be actively involved, stimulating critical thinking skills through problem-solving while encouraging creative expression through the visual elements in the Pop-up Book. Thus, this model encourages student involvement and can be considered as a potential method for improving the quality of Civics learning.

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