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Project citizen digital: Civic education strengthen the national defense character?

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Article Info

Abstract

Civic education is a form of the citizen's social contract with the state, as well as binding the minds, feelings, and bodies of citizens to the state. The state provides protection for citizens, and citizens give the loyalty to the state by carrying out the values of national defense character. However, in practice, the learning model used in civic education has not been fully holistic in developing student's national defense character. The purpose of this article is to examine the effect of using Project Citizen Digital on the national defense character of students in Civic Education. This the new research is because previous research developed Project Citizen Digital for civic literacy. The approach used in this research is quantitative to measure the Implement and Evaluate stages of using the ADDIE model (Analyze, Design, Develop, Implement, and Evaluate) after the development of the Project Citizen Digital Application. Data collection techniques used questionnaires. Meanwhile, the data analysis used one group pretest-posttest on 80 students from the Universitas Pendidikan Indonesia due to the limited ability of the Project Citizen Digital Application. The results of the research show that there are differences in student's character of national defense before and after the implementation of the Project Citizen Digital with an average difference of 2.95 percent.

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Introduction

Indonesian Civic Education has the duties, functions, content, and educational process of ideological values that emphasize the obligations and rights to defend the state.

Such aims at creating and fostering citizens so they can be relied on by the nation and the state to minimize various forms of threats, challenges, obstacles, and disturbances for the Indonesian with their profession in the future (Gredinand, 2017). This is following Article 30 Paragraph (1) of the 1945 Constitution of the Republic of Indonesia, that "every citizen has the right and obligation to participate in state defense and security", which is translated in Law Number 3 of 2002 concerning State Defense in Article 9 Paragraph (1) which states that "the participation of citizens in efforts to defend the country ... is carried out through a. civic education …."

However, in practice, Civic Education encounters obstacles not only in terms of material and evaluation but also learning methods and media in fostering citizens who have the national defense character (Dahliyana, et al., 2021). This is because learning is still dominated by the teacher, so learning is monotonous, using lecture method, textbook assignments, tied in the classroom, and directing students to the uniformity of arguments that apply in the civil space (Llano, 2017; Oyetade & Oladiran, 2012). In addition, most students consider Civic Education is boring and irrelevant to their lives because they do not understand its benefits or why they should study it because it is not following their area of interest and expertise (Jabbour, 2014; Nurdin & Dahliyana, 2017). As a result, there is a tendency to reduce the actualization of national defense values among the younger generation, such as love for the motherland, awareness of nation and state, loyalty to Pancasila, willingness to sacrifice for the nation and state, and having the initial ability to national defense. For example, they are prouder of foreign cultures, become more individualistic, materialistic, with the emergence of excessive regional spirit, showing fanaticism, intolerance towards religion that leads to hatred, and also behave anarchically.

According to Ace Suryadi and Dasim Budimansyah, this situation occurs because, in general, schools in Indonesia experience what is called the practice of bureaucratic leadership, which is centrally controlled. The type of school leadership like that results in the overuse of traditional rote learning as the main source of the low quality education (Suryadi & Budimansyah, 2016). In addition, Encep Syarief Nurdin's mentions the influence of the implementation of civic education policies in universities of nationalism and patriotism had a low degree of influence due to several factors: (1) the development of civic education materials was delegated to each university or to lecturers of courses so that the material does not consistently focus on patriotism and nationalism; and (2) the policy is not implemented effectively in terms of (2.1) not being communicated ideally; (2.2) lecturers have varied competencies without consistent academic background; (2.3) the disposition as implementer lacks commitment due to the limited number of educators compared to the number of bureaucratic participants; and (2.4) the bureaucratic structure varies by university, resulting in the failure of unity of command and bureaucratic fragmentation (Nurdin, 2017).

The results of the research above are corroborated by Lee, that interdisciplinary integration has not yet become the focus of civic education, so that practical reform has not had the expected impact. It is rooted in the practice of responsive discourse (e.g., maximizing participation, respecting differences response), requiring understanding how interdisciplinary knowledge can underlie civic action, recognizing the influence of identity (including perceptions of self, others, and context), and considering the central role of influence and knowledge (Lee et al., 2021). This view is in line with Thunder (2017), who explains that citizens not only actualize their potential, but also ask questions such as "Who am I?", "What is my potential?", "What does the relationship mean to me?" and "What should I do?" Regarding citizenship, how far they express the meaning of the relationship and obligations of citizens, their position in the public, and the meaning of life as a person, is of course a category of interpretation and self-interpretation.

One of the learning models that has proven its effectiveness in learning Civic Education is the citizen project. Therefore, learning Civic Education through project citizens can make students understand the real problems of the country and find solutions together through concrete steps (Sundawa & Dahliyana, 2022). In addition, the project citizen can find the integration of human potential, integration of curriculum, integration of learning domains, integration of three education centers, integration of theory and practice, and integration of learning activities because students can understand the relationship between Civic Education and the field of knowledge that is their expertise (Muchtarom et al., 2016; Nurdin & Dahliyana, 2017). However, what if the citizen project is developed in the form of digitization and is used in Civic Education lessons? Therefore, the main research question that will be discussed here is as follows, "Can Project Citizen Digital strengthen the character of national defense of students in Civic Education?."

Methodology

The approach used in this study is quantitative as a series of using the ADDIE model (Analyze, Design, Develop, Implement, and Evaluate) after the development of the Project Citizen Digital Application. A quantitative approach is used to measure the Implement and Evaluate stages in the ADDIE model. The sample selection technique in this study used purposive sampling. In the practice of using the Project Citizen Digital Application, the initial stage was carried out on 30 students to measure the usability level of the Project Citizen Digital, then the System Usability Scale (SUS) research instrument was developed. SUS is used as a measuring tool that can be

used to measure the usability of a computer system. In the next stage, trials were carried out on 80 students or 2 (two) classes due to the limited use of the Project Citizen Digital application in operation because it was still in prototype form. The research instrument was developed by taking into account the basic values of national defense as contained in Law Number 23 of 2019 concerning the Management of National Resources for National Defense. Meanwhile, the developing indicators are from the Module Book of the National Defense Council, which was compiled based on the mandate of Presidential Instruction Number 7 of 2018 concerning the National Action Plan for National Defense, which states that the values of national defense in the Indonesian context are love for the motherland, awareness of the nation and state, loyalty to Pancasila, willing to sacrifice for the nation and state, and having the initial ability to defend the country. The data analysis used one group pretest-posttest with the SPSS 26 program.

The hypotheses used are: (1) Ho = there is no difference in value before and after learning is done; (2) Ho = before = after; (3) Ha = there is a difference in value before and before learning is carried out; and (4) Ha = before no equals after (before < after), (before > after) - 2 tailed. The criteria used are Ho is accepted if the value of t (count) is outside (table) and Ha is rejected if the value of p, 2 tailed is < .025.

Results and Discussion

Project Citizen Digital in Civic Education Learning

Civic education in Indonesia has undergone several name changes. This is not only happening in Indonesia but also in several countries such as Hong Kong. This change caused confusion among educators. Various methods have been carried out as steps for moral, civic, and national education in fostering students to become "good citizens". This situation forces a reassessment of the goals and structure of civic education (Ho, 2017).

In Indonesia, the concrete form of a good citizen is often defined differently by those who consider themselves to be civic education experts. However, Indonesia has emphasized that "good citizens" are those who has the national defense character. This is confirmed in law number 3 of 2002 concerning national defense and law number 20 of 2003 concerning the national education system, and law number 12 of 2012 concerning higher education. However, as previously stated, achieving this purpose is very difficult and has a winding road to

achieve it because not all elements understand civic education well, due to the lack of references and literacy regarding civic education (Míguez & Hernández, 2018).

Therefore, various results of the research reveal that it is necessary to develop a learning model so civic education is able and successful in growing and fostering good citizens. In 1992, in California, education practitioners gathered and finally found the project citizen model. Project citizen model emphasizes case studies, which make it possible to design and rate policy in civic education (Míguez & Hernández, 2018). However, the implementation of this model encountered obstacles in Indonesia because various facilities and infrastructure for the final stages encountered obstacles, especially financial problems. This suggests that material conditions influence how civic education and participation are understood (Míguez & Hernández, 2018). Míguez and Hernández (2018) emphasized that this is why low social-economic status has less impact on civic education policies.

The solution offered is to develop a project citizen model in digital form. The following is an overview of the digital citizen project. The model used as a source of adaptation to develop Project Citizen Digital is the "We the People…project citizen" program. This program is designed to develop students' interests and abilities to participate rationally and responsibly in local and national governance. The stages of the Project Citizen Digital are: (1) identifying problems, (2) selecting problems for class study materials, (3) collecting data and information, (4) developing class portfolios, (5) presenting portfolios, and (6) reflecting on learning experiences.

This Project Citizen Digital is designed to minimize learning as a need for citizen contributions according to their ability to carry out a critical analysis of their actions according to the situation at hand (Kasperowski & Hillman, 2018). This is because society is undergoing a change towards peer-to-peer, which is marked by new ways to produce things ranging from software to accessible scientific knowledge, as well as collaborating with various parties and even scientists (Wildschut, 2017). This is a marker according to Wildschut, that citizens have proven capable of asking their questions, preparing their projects, educating themselves, and managing complex projects to be able to produce collaborations from useful knowledge. Although, in general, according to Cunha et al. (2017, p. 2229), there is a strong element of trial and error.

This Project Citizen Digital has many similarities in several stages like project citizen in general, only in the assessment section, stakeholders also have the opportunity to judge, and unlimited access to the board of jury.

The developments carried out on project citizens are as follows (Figure 2):

With the development of the Project Citizen Digital, teachers are no longer the center of teaching, because if they remain the center of teaching, their ideology will create the same human standardization for the knowledge, skills, and dispositions. In the future, it may be different potentially between students with teacher (Knowles, 2019). However, educational the institution remains a strong place to educate strong agents because characteristic will be an important part for the student's success in the future (Sokatch, 2017).

The design of citizenship is closely related to how social ownership is affected and the social world is shaped by new technologies. However, it must be acknowledged that in the changing of social world it is important to understand the social implications of technoscience to know how citizenship can change (Delgado, 2016). These discussions reflect the transition from the "traditional" civic education model to the "new citizenship", which significantly broadens the definition of civic participation and the purpose of civic education (Carretero et al., 2016). As previously stated, civic education is able to create a link between science and education, and when combined with new technologies, it will expand the boundaries of research and civic engagement. Therefore, future project citizens are likely to be affected by socio-cultural issues associated with new technologies (Newman et al., 2012). This is reinforced by the data of the last decade, whereby several fields of science have begun turn to online technology, especially to classify very large data sets (Kasperowski & Hillman, 2018).

Project Citizen Digital as show in Figure 2 is here as a solution, because educators are directly involved in this program by directing students to collect scientific data and choose the project topic which is related to the students' lives to increase their participation (Paige et al., 2015). This is an indication that the Project Citizen Digital has proven to develop collaborative skills. Students feel involved when doing the assignments and reflecting on the learning process in conducting research and collecting data (Morgan, 2016). Therefore, Project Citizen Digital can maintain the rhythm of student involvement for the research and data collection until the learning reflection process because they are able to show an accurate rhythm of performance and achieve high civic activities (De Moor et al., 2019). This statement is reinforced by the results of the SUS measurement, whereby the digital citizen project after going through the repair process and conducting tests through SUS on 30 students, stated the digital citizen project for percentile ranking was at 94, conversions in rankings obtained an A value, conversions in nature included excellent, the conversion in the acceptance level is included in the acceptable category, and the conversion in the Net Promoter Score (NPS) means that the digital citizen project is included in the promoter category. Therefore, the Project Citizen Digital can be continued in the implementation and evaluation process.

This is of course following the life skills that are mastered by students to be prepared for 21st century life, work, and citizenship, namely, (1) critical thinking and problem solving, (2) collaboration and leadership, (3) agility and adaptability, (4) initiative and entrepreneurship, (5) effective oral and written communication, (6) accessing and analyzing information, and (7) curiosity and imagination (Saavedra & Opfer, 2012). Thus, in the context of college, project citizen digital is very appropriate for students (Fry & Bentahar, 2013). This is corroborated by research which states that this project has strong scientific purpose, a strong emphasis on communication and social practices, providing a good user experience and generating motivation and empowerment (Golumbic et al., 2020).

Project Citizen Digital as Strengthening National Defense Character

After the analysis, design, and development are carried out, the next stage is implementing the project citizen digital. Implementation is carried out using the pc-indonesia.id application as show in Figure 1.
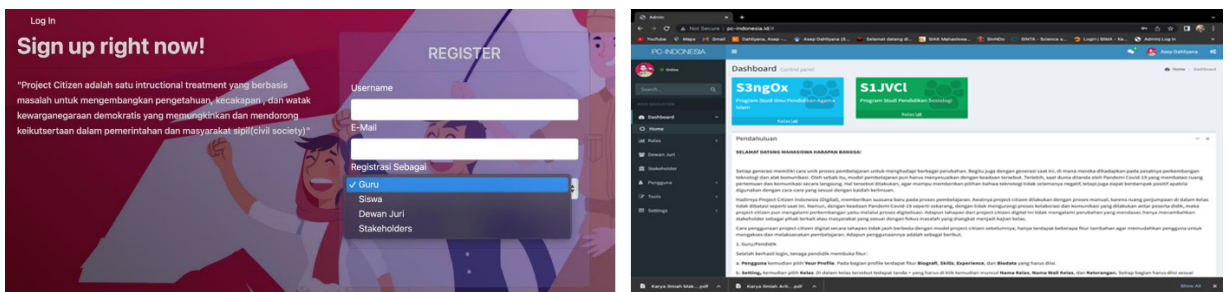

Figure 1 Digital project citizen which can be accessed via https://pc-indonesia.id: (A) Initial view of project citizen digital; and (B) Home view of the project citizen digital
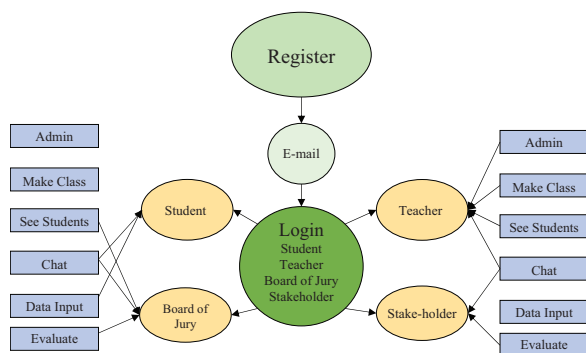**Source:** Dahliyana (2023)

Figure 2 Development of project citizen in digital form

At this stage, several tests were carried out, including validity, reliability, and normality tests. After the instrument was tested for validity and all instruments were valid, a reliability test was conducted to determine the consistency of the variables repeatedly. In this study, the reliability test was carried out using the Cronbach's Alpha formula obtained by the SPSS 26 program. From the calculation results, it is known that as many as 36 question items show the reliability. The value obtained is 0.965 or greater than r table 0.1796. Thus, the research instrument can be used as a valid research instrument.

Then, the normality test was carried out using the One-Sample Kolmogorov Smirnov Test method with an alternative calculation using Monte Carlo. If the results of the normality test state that the significance value is greater than .05, then the data are normally distributed, but if the significance value shows less than .05, then the data are not normally distributed. The results of normality testing using SPSS version 26 shows that the distribution of data is normal because the Monte Carlo is significant at .158, which is greater than .05.

The results using the calculations SPSS 26 with the one group pretest-posttest formula show in Table 1 that the p, 2 tailed value is .003 < .025, then Ho is rejected. This means that there are differences in before and after values in learning by using Project Citizen Digital on the character of the student's national defense. Such is known from the average value of the pretest, which is 1,631,125, and the average value of the posttest, which is 167.95. Although the average score

only experienced a small difference, it has provided information that Project Citizen Digital has succeeded in strengthening the student's national defense character. Students are expected to actualize and transmit the skills, values, ideologies they have acquired to the next generation (Paksuniemi, 2016). This is because, in experiential civic education learning, context-sensitive, reflective and critical, interactive, heuristic and creative learning must dominate, and be supported by effective teaching from a competent educator (Jerković et al., 2018, p. 64).

In identifying the phenomena and problems in the community and society, being involved in their analysis, the process of forming and defending a free attitude, critically thinking about the state in politic lives and the public, students will intensively develop intellectual (cognitive) skills (and abilities), and with involvement being interactive, humanitarian, cultural, voluntary and socially beneficial, they will acquire participatory civic skills and abilities. Such activities are permeated by the internalization of civic dispositions-moral qualities of a public nature that contribute to the functioning of democracy and commitment to its fundamental principles. In using civic knowledge and skills inventively and embodying civic virtue, students will become increasingly independent and release the external influences and dependencies. In the process of emancipatory education, citizens who are increasingly informed, free-thinking, brave, critical, active and responsible, will be produced in a democratic society (Jerković et al., 2018, p. 64).

In addition, the development of the young generation that is versatile and supports their careers can be carried out by promoting a comprehensive and multidimensional national defense, namely, through the information, psychological, and civil dimensions (Kreija-Gaikste & Katane, 2021). Kreija-Gaikste and Katane (2021) emphasized that youth participation in national defense must continue to be promoted. One of the ways is through subjects that provide patriotic education. In Indonesia, education that provides patriotic values is civic education (Nurdin & Dahliyana, 2017). The implementation of civic education is carried out separately and becomes a special course known as a mandatory curriculum subject, which is mandated to become a facilitator and instill the nation's character (Nurdin, 2015) in this case the national defense character. The national defense character for civilian citizens is not a form of military education, but the national defense character which must be able to be actualized according to their profession and expertise. In daily life,

Table 1 One group analysis pretest-posttest

Group	Pre-Test	Behavior	Post-Test
A (Experiment)	Y1	T	Y2

the national defense character can be actualized such as proud behavior towards their culture, saving electricity and water, maintaining cleanliness around and so on (Ginting et al., 2021).

Therefore, a systematic evaluation is needed to gain a better understanding of citizen science learning outcomes, the criteria for which need to be developed. Fostering the format project that allow participants to be involved in the entire research process—from asking study questions to applying results—can enhance the transformative aspects of citizen science at the community level. Important structural aspects that need to be addressed include adjustments in funding schemes, facilitation of communication between citizens and academic-based scientists, and offers for training, mentoring, and networking (Turrini et al., 2018, p. 176).

Thus, the Project Citizen Digital is in line with 21st century character learning in Civic Education because it is able to strengthen to values of national defense both in term of knowledge, skills, and civic disposition, and also can improve civic education skills to the concept of developing student behavior (Fry & Bentahar, 2013; Zabala, 2016). Therefore, the Project Citizen Digital is able to leverage the involvement of young citizens in civic activities, which is a strengthening of classroom-based national defense character education (Abudu et al., 2014) in terms of love for the motherland, awareness of nation and state, loyalty to Pancasila, willing to sacrifice for the nation and state, and having the initial ability to defend the country because Project Citizen Digital can provide key concepts related to emotion, identity, citizenship, concern for society and the environment (Cuenca-Lopez et al., 2021). Therefore, educational institutions are not only one of these practices, but are also institutions that explain the reason for facilitating and optimizing the development of civic education (Moldovan et al., 2014).

Conclusion and Recommendation

The curriculum, achievement indicators, materials, teaching staff, and evaluation must reflect the element of national defense Indonesia needs, namely, love for the motherland, awareness of the nation and state, loyalty to Pancasila, willingness to sacrifice for the nation and state, and having the initial ability to defend the country. This is to provide the firmness and certainty to citizens, as to why they have to study and get civic education at every level of education, even in collage.

In addition, provide direction to educators so that the implementation of learning is not dominated by their own understanding according to their thinking but must focus on achieving the character of national defense so that learning does not seem militarized and rigid. It is necessary to develop learning applications that are in accordance with the needs of achieving the required national defense character, which citizens need, especially in this digitalization era such as the project citizen digital. Suggestions for further research are testing project citizen digital for other characters for general compulsory subjects other that civic education. Apart from that, trials can also be carried out in schools using the same instrument because the values of national defense apply equally to every level of education in Indonesia.

Conflict of Interest

The authors declare that there is no conflict of interest.

Fundings

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