

The Pancasila and Civic Education curriculum model at 21st century

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Abstract

The challenge of producing highly competitive and superior human resources is faced by nations worldwide, including Indonesia's education sector, specifically in Civic Education. Enhancing the quality of education requires a reconstructed curriculum that includes 21st-century competencies. This study aimed to describe the design model for developing citizenship skills in the current century. The research adopted a qualitative descriptive and quasi-experimental approach, collecting data through questionnaires, interviews, observations, documentation studies, and literature reviews. The sample comprised 180 high school students and Civic Education teachers from three schools in Bandung Regency. Findings showed that students' skills in Civic Education using the 2013 curriculum were suboptimal. However, the experimental group using the 21st-century curriculum exhibited a significant increase in their skills, including learning and innovation skills, life and career skills, and technology and media skills. Improving Civic Education in Indonesia is crucial in nurturing competent and competitive citizens.

Keywords: 21st century competences; civic education; curriculum; civic education

Introduction

The curriculum must be updated to address the technological advancements of the 5.0 era, characterized by high competition and revolutions in information, communication, and industrial technology (Aquilani et al., 2020; Santos et al., 2021; Weiss et al., 2011). To build a



competitive society, every country must improve to face the challenges of this era. Education is one of the organized, planned, and sustainable efforts in human resource development, and it has a significant role in improving a country's economy. The link between education and the economy is not new. Still, it has taken on a new form in the 1990s, when the global economy only requires ideas, innovation, creativity, and critical thinking in economic competition (Kennedy, 2008; Ritchie et al., 2010). Therefore, improving the quality of human resources requires developing these skills (Jayadiputra et al., 2020). There needs to be an improvement in the quality of education and learning to align with the demands and challenges of today's development. Some papers suggest reinforcing education on how to search for jobs to produce high-quality talent meeting the needs of the market-oriented economy (Shao, 2018), and establishing effective engineering teaching quality archives to promote the improvement of teaching quality in colleges and universities (De, 2001).

The low quality of Indonesia's human resources is currently influenced by the quality of education and learning taking place in Indonesia, which is directly proportional to the national curriculum used in the country. According to the latest PISA report, Indonesia's average ranking across the three subjects (science, literacy, and math) is 69th out of 79 countries (Sahyar et al., 2019). This score is lower than Singapore, which is ranked first in the world in applied PISA to education system (Sahyar et al., 2019). Indonesia faces disparities in access to basic education, particularly between rural and urban areas, and in teacher qualifications and quality of curricula (Sahyar et al., 2019).

The current curriculum system does not accustom students to work on problems that can encourage, stimulate, and analyze a problem using high-level comprehension skill. The consistent results of Indonesia's ranking below other countries bring the consequence of thinking that the quality of Indonesian education is not in accordance with global community standards. Hence, it is necessary to reconstruct a new educational curriculum to improve the quality of education in Indonesia, particularly in Pancasila and Civic Education (PCE/PPKn in Indonesia). This curriculum should develop not only intellectual abilities but also develop Indonesian people, who believe and fear God Almighty, possess knowledge and skills, physical and spiritual health, a steady personality, independence, a sense of community and national responsibility, and skills in the field of technology and information. This will enable Indonesian citizens to compete competitively and comprehensively globally.

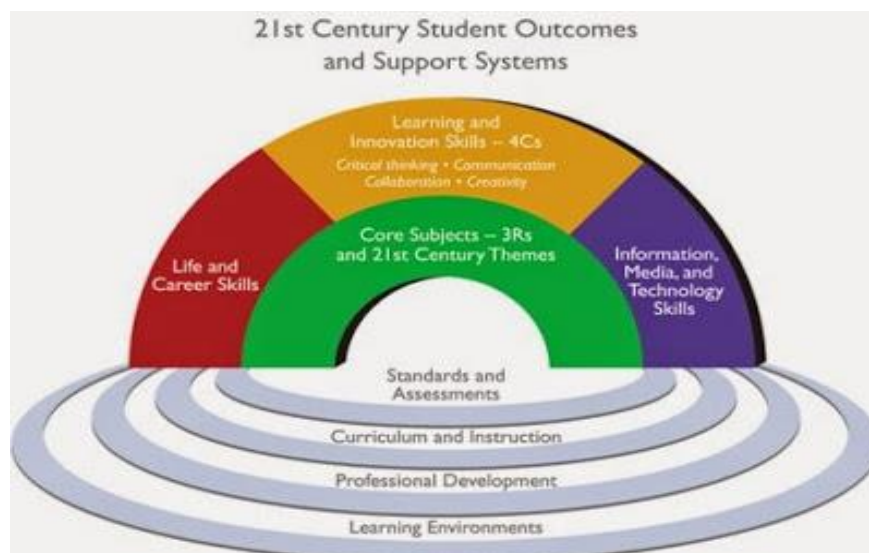
Keer (1999) observed that the current state of PCE learning in Indonesia only caters to certain aspirations, such as formal citizenship teaching that is limited to specific content and focused solely on knowledge-oriented teaching processes that yield easily measurable results. This is in line with the opinions of Winataputra and Budimansyah (2007), who identified three sources of failure in the development of civic education: the rigid time allocation for face-to-face learning in classrooms, the dominance of cognitive dimension activities, and the overemphasis on cognitive abilities in assessments. Moreover, Wahab and Sapriya (2011) noted weaknesses in past civic education, such as the focus on moral values without considering the structures, processes, and institutions of the state, as well as an orientation towards the interests of the ruling regime.

Based on these expert opinions, several issues related to PCE curriculum in Indonesia can be identified. *First*, PCE learning still emphasizes theory over practice. *Second*, the material covered in PCE is broad but lacks depth and balance between theory and practice. *Third*, the readiness of teachers and schools, as well as the availability of adequate infrastructure, needs to be reviewed in support of the 2013 curriculum. *Fourth*, the 2013 PPKn curriculum needs to be improved to develop 21st century citizens' competencies in terms of content and packaging that cater to the diversity and uniqueness of each region in Indonesia and the current challenges of the 21st century. *Fifth*, learning is too focused on the cognitive dimension, which affects assessments that only emphasize cognitive abilities, leading teachers to focus solely on material

achievement targets while neglecting other competencies such as affective skills and life skills. *Sixth*, the curriculum for PCE must also cater to the needs of the millennial and Generation Z digital generations by designing learning processes that incorporate digital learning.

To equip students with the necessary competencies for the 21st century, they need to possess various skills, including life and work skills (flexibility, initiative, social interaction, productivity, and leadership), learning and innovation skills (critical thinking, communication, and creativity), and information technology and media skills (information, media, and ICT literacy). Therefore, learning activities that implement 21st century learning should focus on developing three essential competencies: 1) life and career skills, 2) learning and innovation skills (4Cs), and 3) information, media, and technology skills. In other word, competencies for the 21st century refer to the skills and abilities that individuals need to succeed in the modern world. These competencies include critical thinking, problem-solving, creativity, collaboration, communication, and global awareness (Neumann et al., 2021). Studies have been conducted to determine the level of 21st-century competencies among higher education students (Elçiçek & Erdemci, 2021; Niu et al., 2021), and to identify experiential learning activities that can help develop these competencies (Obi et al., 2022).

Figure 1
21st Century Learning Skills (Student Competencies)



Sources: Thiring & Fadel (2009).

The image presented in Figure 1 illustrates the various competencies that citizens must possess to meet the demands of the 21st century. As these demands continue to evolve and shape the dynamics of human life, it is necessary for the current and future Pancasila and Civic Education curriculum and learning to prepare students adequately. Considering this, it is important to orient the curriculum towards the realization of competent, comprehensive, and competitive citizens in the 21st century. With this objective in mind, the author has undertaken the design of a 21st century curriculum that seeks to cultivate life and career skills, learning and innovation skills, and proficiency in technology and information media among students.

Method

This study utilizes a mixed-methods approach that integrates both qualitative and quantitative methodologies. Mixed research is an approach that combines these two methodologies (Creswell, 2014). Creswell & Poht (2018) identified three techniques of the mixed-methods approach: sequential explanatory, sequential exploratory, and transformative sequential. The current study employs the sequential exploratory mixed-methods approach. In the first stage, qualitative data analysis is conducted by examining the 2013 curriculum document and evaluating its implementation. In the second stage, quantitative research is employed using quasi-experimental methods to determine whether a treatment (21st Century Curriculum Design) has an impact on the subject under study.

The population for this study comprises all Senior High Schools located in Kabupaten Bandung that implemented the 2013 Curriculum in the subjects of Pancasila and Civic Education during the 2019/2020 and 2020/2021 school years. The sample size consists of 180 individuals from three Upper Middle Schools in the District of Bandung. The data collection instruments used are questionnaires, tests, and observation guidelines, which have undergone validation and reliability tests. The instrument development is based on learning and innovation, life and career, and information technology and media skills. The questionnaire assessment scale ranges from 1 (Not Good) to 4 (Very Satisfactory).

The collected data, which meets the validity and reliability requirements, are processed and analyzed using the Windows 22 SPSS program. Qualitative description is also utilized by combining data interpretation based on theory and field observations with validation of information from observer partner teachers in schools, who served as the research locus.

Result and Discussion

In this research, the author employs Tyler's (1949) curriculum theory and the concept of 21st-century competencies developed by Trilling and Fadel (2009). According to Nurdin & Andriantoni (2016), Tyler's theory of curriculum development comprises four main steps. *First*, formulating curriculum objectives, which is highly dependent on the theory and philosophy of education as well as the adopted curriculum model. Thus, mastery of various concepts and theories depicted in scientific disciplines serves as the main source of goals. *Second*, choosing a learning experience that aligns with the predetermined goals. Learning experience is a student activity that involves interacting with the environment and educational resources such as teachers or lecturers, books, and other materials. *Third*, in designing a curriculum according to Tyler, it is crucial to organize learning experiences in subject units and programs. The clear organization provides direction for implementing the learning process, resulting in a positive experience for students. Finally, the *fourth* stage involves the evaluation process, which is a critical step in obtaining information about achieving predetermined goals. Evaluation helps determine whether the curriculum used aligns with the goals intended to be achieved by the school.

From the development of these steps, an answer to the question raised by Tyler regarding the main components of the curriculum that must be developed emerges. These components include: 1) What educational purposes should the school aim to attain? 2) What educational experiences can be provided to likely attain these purposes? 3) How can these educational experiences be effectively organized? 4) How can we determine whether these purposes are being achieved? These four answers to the question become the main steps in developing Tyler's curriculum (Brady, 1990). Four stages must be considered in the development of this curriculum, including objective reading (related to the goals and needs of students), content, methods, and evaluation.

Some studies provide insights into the impact of civic education on young people's civic engagement (Whiteley, 2014), the need for a redefinition of civic education and its curriculum that includes a critical examination of the boundaries of citizenship (Baildon et al., 2016), the factors that affect teachers' implementation of civic education curriculum (Anagbogu et al., 2021), and the preparedness of teachers for competency-based learning (Mulenga & Ng'andu, 2022). The study on the evolution of China's civic education curriculum from the end of the Qing Dynasty to the beginning of the Republic of China shows that civic education had a certain significance of the times and was a better way of education in the environment at that time (H. Li et al., 2023). Overall, the key components of a civic education curriculum may include knowledge of civic institutions, rights, and responsibilities, critical thinking and problem-solving skills, and opportunities for civic engagement and participation (Anagbogu et al., 2021; Baildon et al., 2016; H. Li et al., 2023; Mulenga & Ng'andu, 2022; Whiteley, 2014).

In the 21st century, there are three 21st century learner competencies that must be developed, such as 1) life and career skills, 2) learning and innovations skills, and 3) information, media, and technology skills. These competencies must be given to learners considering that the current era has entered the millennial era where the younger generation is a dominant generation with various digital technology advancements (Trilling & Fadel, 2009). Based on the theory of Trilling & Fadel (2009), if we relate it to the educational situation in Indonesia today, it is highly dependent on several aspects including character aspects such as ways of thinking, the spread and effectiveness of education received by society, as well as the wise use of science and technology. Therefore, the main goal of education needed is to prepare individuals to have competencies that citizens must possess related to the demands of the 21st century. One of the efforts that can be made to realize this is by designing a 21st century curriculum that accommodates the development of 21st century citizen competencies so that learners have adequate life and career skills, learning and innovation skills, as well as technology and information media skills. The results obtained from the research process of the Curriculum Model of Pancasila and 21st century citizenship education are as follows:

1. Analysis Phase

Upon analyzing the 2013 curriculum document and its current implementation in selected schools, it has been determined that these schools are appropriate for use as product testing sites. In this stage, the author conducts a problem analysis by analyzing the implementation of the curriculum in the PCE learning process, and it has been found that there is a need for optimization of the curriculum to achieve the goals mandated by the law. Specifically, the 2013 curriculum in PCE subjects requires revision to better align with the vision and mission of PCE subjects that are more contextual with the current situation and conditions. This is because students need to be equipped with life skills, learning skills, and proficiency in technology and information media to succeed in the 21st century.

In the 21st century, all students require various competencies, such as life and work skills, learning and innovation skills, and information technology and media skills. These competencies include flexibility and adaptability, initiative and self-regulation, social and cultural interaction, productivity and accountability, and leadership and responsibility. Moreover, critical thinking and problem-solving, communication and collaboration, creativity and innovation, information literacy, media literacy, and ICT literacy are also essential skills that students need to develop. Therefore, teachers need to optimize IT-based learning media in the learning process to enhance the quality of education in the face of the fourth industrial revolution.

The 2013 curriculum requires an enrichment of the material to emphasize the value of the nation's philosophy and matters related to civic ecology and awareness of global citizenship. The need for improvement in the PCE curriculum has been highlighted by the results, which demonstrate the necessity of developing competencies for the 21st century that can accommodate the diversity and uniqueness of students in each region and adapt to the demands of the digital era.

Regarding assessment, PCE learning process has an overemphasis on the cognitive dimension, which has implications for assessment that focuses solely on the mastery of cognitive abilities. Consequently, teachers are constantly pursuing material achievement targets, which leads to the neglect of affective skills and life skills. Moreover, the assessment aspect of these competencies is lacking. In the assessment of Pancasila and Civic Education learning, formative and summative assessments must be carried out in tandem to facilitate proper authentic assessment.

The Indonesian education curriculum must also cater to the demands of the millennial generation and generation Z, who are digital natives and cannot be separated from the technological advancements of the present era. Thus, the learning process must be designed towards digital learning. Furthermore, the author analyzed the curriculum design and obtained information about the 21st century curriculum design that would develop competent,

comprehensive, and competitive citizens in this era. Several components must be accommodated in the PPKn curriculum in the future, such as: cognitive, affective, psychomotoric, digital learning, learning skills, character, and life skills.

The components have a significant role of education in preparing the skills and competencies of students, particularly adolescents, to confront the present digital era. Trilling & Fadhel (2009) proposed three 21st century competencies that are commonly referred to as the "rainbow of 21st century knowledge skills" and the current generation must possess that, these are: 1) life and career skills, 2) information media and technology skills, and 3) learning and innovation skills.

First, the life and career skills involve the ability of students to adapt to change and be flexible in learning and group activities, manage goals and time, work independently, become self-directed learners, interact and work effectively with diverse groups, manage projects and produce products, lead their peers, and take responsibility for the larger community. Learning experiences are positively correlated with creative skills, thus demonstrating the importance of fostering creativity in students (Beghetto & Kaufman, 2014; Kim, 2011; Runco & Jaeger, 2012). With the 21st century curriculum design, Pancasila and Citizenship education can facilitate students' creativity, as the learning process must provide ample space for students to express their ideas and thoughts openly.

Second, the Information media and technology skills involve providing various media that can assist students in elevating their understanding and bridging the gap from low-order thinking skills to high-order thinking skills. In the 21st Century Curriculum Design model, students can access information sources effectively and efficiently by identifying the availability and feasibility of sources, analyzing information critically and competently based on objective and subjective thinking skills, and managing information accurately and effectively to resolve problems. Moreover, students can choose and develop appropriate media for communication. Acar et al. (2021) and Li et al. (2022) found that the use of creativity technology is the most prominent factor influencing creative behavior.

Third, the Learning and innovation skills involve using various reasoning methods, making decisions, solving problems, communicating effectively, collaborating with group members, and thinking creatively and innovatively. Critical thinking skills are essential in education and in the era of globalization. Critical thinking involves the ability to think clearly and reasonably about what to do or believe, to investigate, appraise, interpret, or synthesize information, and to use creative thought to construct an argument, solve problems, or reach a conclusion (Raj et al., 2022; Uribe-Enciso et al., 2017). Critical thinking is also important in big data processing, which is a fast-growing technology in many fields, including education (Hafni et al., 2020). Teachers play a vital role in developing critical thinking skills in students, and active methodologies should be used to teach critical thinking in universities (Bezanilla et al., 2021). Critical thinking is recognized as one of the tools for the formation and development of human and social capital, and it is often identified as the goal of higher education (Indrašienė et al., 2021). Critical thinking should not be limited to criticizing various phenomena but also committing to the critical thinking stage, which aims to provide solutions. Developing themes in PCE learning that stimulate innovative thinking can enhance students' level of thinking and sensitivity in responding to various problems in their lives. Teachers should encourage students to propose innovative themes that are relevant to their lives, so that the themes and solutions presented in group discussions can be implemented.

2. Testing Phase

Based on questionnaire data obtained from 180 respondents from 3 high schools in the Bandung area, the calculation data can be explained using the *SPSS Windows 22* in Tabel 1.

Table 1
Descriptives of Gain Results

		Descriptive		Statistic	Std. Error
Result	Experimental Class (21st Century Curriculum)	Mean		76.1889	.55003
		95% Confidence Interval for Mean	Lower Bound	71.0960	
			Upper Bound	73.2818	
		5% Trimmed Mean		72.4105	
		Median		73.0000	
		Variance		27.228	
		Std. Deviation		5.21804	
		Minimum		59.50	
		Maximum		81.00	
		Range		21.50	
	Interquartile Range		7.75		
	Skewness		-.485	.254	
	Kurtosis		-.197	.503	
	Control Class (Curriculum 2013)	Mean		66.7222	.64274
		95% Confidence Interval for Mean	Lower Bound	65.4451	
			Upper Bound	67.9993	
		5% Trimmed Mean		66.7747	
		Median		67.5000	
		Variance		37.180	
		Std. Deviation		6.09757	
Minimum			55.00		
Maximum			80.00		
Range			25.00		
Interquartile Range		9.88			
Skewness		-.182	.254		
Kurtosis		-.836	.503		

Table 1 presents the N-gain scores for the experimental and control classes, which used the 21st century and 2013 curricula, respectively. The average N-gain score for the experimental class was 76.2%, with a range between 59.50% and 81%, while the control class had an average score of 66.8%, ranging between 55% and 80%. These scores were interpreted according to the effectiveness of the Gain value, which was categorized into four groups: less than 40 as ineffective, 41-55 as less effective, 56-75 as quite effective, and more than 70 as effective. Based on this interpretation, the average N-gain score for the experimental class fell within the effective category, indicating that the use of the 21st century curriculum improved the competence of 21st century citizens. Conversely, the control class fell into the category of quite effective, suggesting a less significant improvement.

Furthermore, the independent sample t-test was performed to identify any significant differences or gains between the two classes. This test is used to compare the means of two independent samples, with a significance level (p-value) of less than 0.05 indicating a significant difference between the two groups. Table 2 presents the results of the independent sample t-test.

Tabel 2
Independent Samples Test

	Levene's Test for Equality of Variances		Independent Sample Test		T-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Differences	Std. Error Differences	95% Confidence interval of the Difference	
								Lower	Upper
Equal variances assumed	3.672	.057	6.462	178	.000	5.46667	.84596	3.79727	7.13607

Equal variances not assumed	6.462	173.849	.000	5.46667	84596	3.79727	7.13607
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The results presented in Table 3 show that the sig value in Lavene's test for equality of variances is 0.057, which is greater than the significance level of 0.05. Therefore, it can be concluded that the variances of N-gain data (%) for both the experimental and control classes are homogeneous. Consequently, the independent t-test for N-gain scores assumes equal variances, and the significance level (2-tailed) of $0.00 < 0.05$ suggests a significant difference in effectiveness between the use of the 21st century curriculum and the 2013 curriculum in developing 21st century citizens' competencies.

21st century learning is a learning approach designed for students in the 21st century, which integrates knowledge, skills, attitudes, and ICT mastery. These skills can be developed through various activity-based learning models that align with the competencies and learning materials' characteristics. The 21st century skills required by students, according to Trilling & Fadel (2009), include learning and innovation skills, life and career skills, and information, media, and technology skills. Therefore, 21st century learning must guide students towards achieving these expected skills.

The 21st century curriculum is designed to produce competent, comprehensive, and competitive citizens in the 21st century. The Indonesian nation's goals and ideals are to foster citizens with a sense of nationality and love for the homeland imbued with the values of Pancasila (Kusdarini et al., 2020), the spirit of *Bhinneka Tunggal Ika*, while possessing a superior character based on the values of Pancasila and the constitutional rules of the 1945 Constitution with high moral awareness and responsibility, to be realized through PCE. Additionally, the 21st century PCE curriculum design aims to develop students into civilized human beings with various skills (learning and innovation, life and career, and IT), committed to the unity of the Republic of Indonesia through the process of accepting and carrying out the teachings of the religion they profess and exhibiting honest, disciplined, responsible, polite, caring, and confident behavior while interacting with family, friends, teachers, the national community, the State, and the global arena.

Conclusion

The 21st century PCE curriculum design has been developed as a rural curriculum that has been adopted from the 2013 PCE and is currently being improved by the government at the school level. After experimental classes were treated with this Curriculum Design, it was declared effective in use. This indicates that using the 21st century curriculum design is one alternative educational solution in the current era by integrating knowledge, skills, and attitudes, as well as proficiency in computer and information technology. Therefore, the design of the 21st century curriculum in education in Indonesia is a necessity that can accommodate the needs of millennials and generation Z today. As generation Z is a digital generation that cannot be separated from the developing technological advances, the learning process is designed to cater towards digital learning.

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