

## IMPACT OF INTEGRATIVE LEARNING ON CRITICAL REASONING AND CIVIC CULTURAL LITERACY

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### ABSTRACT

Abstract: This study aims to examine (1) the effect of integrative learning model application in Pancasila and Civics Education (PPKn) subjects on students' critical reasoning ability and (2) the effect of integrative learning model application in Pancasila and Civics Education (PPKn) subjects on students' civic cultural literacy. This research deployed a quasi-experimental design with a non-equivalent control group, the research involved 60 grade XI students from SMA Negeri 1 Cineam in Tasikmalaya Regency, West Java. The sample was selected through purposive sampling, the experimental group consisted of 30 students from class XI IPA 3, while the control group included 30 students from class XI IPS 3. The validity of the test and questionnaire instruments was confirmed with a value of 0.548. The results showed that (1) the integrative learning model significantly enhanced students' critical reasoning ability, with average scores increasing from 59.67 to 80.67. The paired sample t-test showed a t-value of 11.664, exceeding the t-table value of 2.048 ( $p \leq 0.05$ ). (2) Additionally, the model significantly improved students' civic cultural literacy, with scores rising from 80.10 to 87.43. The t value here was 7.215, also surpassing the t-table value ( $p \leq 0.05$ ). The integrative model facilitated interdisciplinary connections, enriched understanding, and promoted the development of critical reasoning ability. It also deepened students' appreciation of tolerance, empathy, and civic responsibility, encouraging respect for diverse opinions and collaborative problem-solving. These findings suggest that the integrative learning model is effective for enhancing critical reasoning and civic cultural literacy in PPKn education.

**Keywords:** critical reasoning, civic cultural literacy, integrative model

### Introduction

The 21st century is characterized by the widespread integration of information and communication technologies into several sectors of life, including education. In the world of work, individuals need to develop new abilities, such as critical reasoning, problem-solving, and collaboration. 21st-century learning is defined by acquiring knowledge (learning to know), developing practical ability (learning to do), cultivating a strong personality (learning to be), fostering social cohesion (learning to live together), and fostering religious observance, piety, and upholding ethical values (P4TK PPKn dan IPS, 2019; UNESCO, 2015).

The 21st-century competency framework states that being knowledgeable about science alone is not enough. The knowledge possessed must be accompanied by creative, critical, and adaptive abilities as part of the times. To support this ability, competence in utilizing

information technology as a learning resource is also required. Learning in the 21st century encourages learning that emphasizes the core concepts in each lesson and is useful in the lives of students. This is intended to provide learning abilities or experiences that are authentic and felt directly by students. Thus, teachers must prepare tools, materials, and learning models that develop learning ability in the 21st-century context and use appropriate assessments to measure 21st-century ability (Pitsikalis et al., 2022; Sulaiman & Ismail, 2020).

Developing strong characteristics, characterized by traits such as accountability, commitment, efficiency, open-mindedness, and proficiency in utilizing technological and information advances, are assets that benefit learners and teachers in the context of 21st-century competencies. The goal of education in Indonesia is to develop individuals who have strong religious faith and devotion to God, exhibit noble character, maintain good health, possess knowledge and skills, show creativity, demonstrate independence, and become responsible, democratic citizens (Republik Indonesia, 2003). These objectives show the process of education shaping Indonesian society. The Ministry of Education, Culture, Research and Technology, which is responsible for the national education system, has established a Pancasila learner profile to support the national education goals.

The Pancasila student profile reflects individuals who have a lifelong commitment to learning and demonstrate global competence while adhering to the ideals of Pancasila. This profile represents the culmination of the educational journey and becomes a representation of learners who embody the principles of Pancasila. Therefore, the Pancasila learner profile is implemented by embedding it into the school culture and incorporating it into extracurricular, co-curricular, and extracurricular activities.

Critical reasoning is one of the elements of the Pancasila learner's profile. Critical reasoning is the ability of learners to analyze information using both qualitative and quantitative methods to design connections between various information to be analyzed, evaluated, and concluded objectively. Critical reasoning ability has an important role for learners in dealing with and solving problems. The ability to reason critically arises by reading, studying, connecting, and reviewing problems from various points of view. (Hidayat et al., 2022). Critical reasoning ability refers to a systematic and specialized thinking process in analyzing problems, expertise in recognizing relevant issues, and the ability to identify information needed to design problem-solving strategies (Dickman, 2021; Vaughn, 2021; Watson et al., 2024). Critical reasoning ability requires strong basic literacy so that learners can reason critically and creatively as well as communicate and collaborate well.

The literacy ability of students in Indonesia tested in the Program for International Students Assessment (PISA) has not shown a significant improvement in 2018 compared to the PISA results in 2015 (Kemdikbudristek, 2022). Indonesia ranks 71 out of 77 countries that are members of the PISA institution. One of the policies to improve students' literacy ability is through the computer-based national assessment (ANBK) which focuses on measuring students' basic literacy ability. This ANBK does not become a reference for students' graduation, but instead provides an overview to the government and especially schools regarding the basic literacy ability of students.

Literacy is the capacity to communicate effectively through skills like reading, writing, listening, and speaking. It includes language skills such as listening, speaking, reading, writing, and critical reasoning (Baleiro, 2011). Thus, having literacy ability helps a person to access various information, interact with others positively, and improve communication

fluency. Basic literacy encompasses essential skills that everyone should have, including literacy, numeracy, science, financial literacy, digital literacy, and cultural and civic literacy (Nursyamsudin & Jaelani, 2021).

Strengthening literacy in schools is an important part of learning as a prerequisite for students to master knowledge and ability. Literacy in schools teaches students to become experts in exploring available information, both in written and non-written forms, so that students can understand the information correctly and precisely. In its methods, student literacy is taught by developing the ability of students to create texts of various types according to the situations that students observe and learn (Hunaifi, 2022). The ability to read and write is a fundamental skill that affects the development of students' critical reasoning abilities. Therefore, low literacy levels indicate that the learning process has not been able to develop students' competencies and learning that create lifelong learners (Abdulkarim et al., 2018).

The results of interviews with teachers at SMA Negeri 1 Cinema indicate that students encounter difficulties in several areas, including asking questions, answering material questions from teachers or classmates, re-explaining learning material, expressing opinions based on facts and data, drawing conclusions, and reflecting on learning. In addition, the indicators of a decrease in the score of students' literacy ability are caused by learning methods carried out by teachers that are still not optimal in interactive learning in accordance with learning objectives and the characteristics of students. Variations in learning models and the teacher's ability to present learning in accordance with the facts of everyday life are not visible. This can be proven in the education report card of SMA Negeri 1 Cineam in 2022 for the score of the learning model carried out by the teacher 50.64 (Kemdikbudristek, 2023).

Civics teachers need to employ creative learning models to foster critical thinking in students. This demonstrates that developing 21st-century literacy ability is a responsibility shared by all subjects in school, including Civics. Pancasila and Citizenship Education (Civics) plays a crucial role in shaping students' character, helping them understand and fulfill their rights and responsibilities as good, intelligent, skilled citizens. This education, guided by Pancasila and the 1945 Constitution, also emphasizes the importance of diversity in religion, socio-cultural, language, age, and ethnicity.

Pancasila and Civic Education represent a method of character education that is aligned with the state ideology, namely Pancasila. Pancasila and Citizenship Education is a multifaceted educational program that encompasses a range of competencies, including civic knowledge, civic dispositions, civic ability, civic competence, civic confidence, and civic commitment. These competencies are integral to the development of civic competencies (Winataputra, 2016). PPancasila and Citizenship Education is a subject that aims to educate citizens in accordance with the state constitution, equipping them with the knowledge, attitudes, and abilities necessary to become informed and responsible members of society (Murdiono & Wuryandani, 2021).

The development of civic competencies can be improved through a learning process that is based on learning to know, learning to do, learning to be, and learning to live together (Delors, 1998). The four pillars can answer the complexity of 21st-century learning challenges in Indonesia which requires students as citizens to have 7 (seven) abilities. The seven abilities that learners (citizens) must have in the 21st century are (1) the ability to reason critically and

solve problems; (2) creativity and innovation; (3) the ability to collaborate and work in groups; (4) have cross-cultural understanding; (5) have the ability to communicate and process information well; (6) have the ability in computerized technology; (7) have care and learn independently. (Trilling & Fadel, 2009)

The capacity of Civic knowledge, Civic ability, and Civic disposition as an entity of Pancasila and Citizenship Education must be reconstructed in the learning process within the classroom. One of the civic knowledge abilities that must be developed is the capacity for critical reasoning. The capacity to reason critically, solve problems, and collaborate is an essential competency for individuals entering the 21st century. This is in keeping with the mission of Pancasila and Citizenship Education in the context of globalization (Murdiono, 2022).

It is essential that the critical reasoning ability of students is developed during the learning of the subject of Civics. In addition to the ability to comprehend concepts, students must also be able to interpret, analyze, and evaluate to reflect on their learning. The process of critical reasoning is a metacognitive one, whereby an individual can analyze, evaluate, and infer to produce logical conclusions about an argument or solution to a problem (Dwyer et al., 2014). This critical reasoning ability is important for learners to enable them to solve problems effectively in an ever-changing world (Bailin et al., 2020). The goal of students' critical reasoning ability is to be able to solve high-level problems. (Istianah, 2013). The results of this study indicate that students' critical reasoning abilities can be observed in Table 1.

**Table 1**  
**Critical reasoning ability indicators**

<b>Components</b>	<b>Description</b>
Understanding the Problem	Seek information, formulate questions and problems clearly and precisely
Identify Information	Identify the truth or validity of information
Analyze Information	Precisely and relevantly outline how these elements interrelate and contribute to form a deeper understanding.
Drawing Up Conclusions	Generate conclusions based on inductive or deductive reasoning
Reflection	Asserting the truth of a statement and self-reflecting on the conclusions reached

Source: processed from various sources, 2024

In this modern era, the progress and quality of a nation is measured by literacy ability as a national culture that gives birth to a superior civilization and plays a role in the socio-cultural life of citizens (Machfiroh et al., 2018; Permatasari, 2015). Indonesia, a country characterized by its diversity, requires an understanding of both its culture and its civic responsibilities. The ability to engage with these concepts is essential to develop a national identity. Indonesia, a pluralistic country, requires citizens who can identify, categorize, and selecting accurate and appropriate information.

The development of cultural and civic literacy is of paramount importance in preventing the dissemination of disinformation and hate speech on social media (Pratiwi & Asyarotin, 2019). The younger generation, in particular learners, are intimately acquainted with social

media due to the pervasive influence of information technology in their daily lives. Consequently, learners must be furnished with the capacity for cultural and civic literacy. Indicators of cultural and civic literacy in learners include fostering a sense of patriotism, tolerance, and responsibility, which are part of the learning challenges in the 21st century. The indicators of learners' cultural and civic literacy are presented in Table 2.

**Table 2**  
**Indicators of Cultural and Civic Literacy**

<b>Components</b>	<b>Description</b>
Tolerance	Appreciating diversity in school and society
Empathy	Demonstrate a caring attitude towards the school culture environment
Responsibility	Actively participate in school activities, respect the opinions of others, and accept different opinions.

Source: processed from various sources, 2024

In learning Pancasila and Citizenship Education (Civics), it is very important to pay attention to the diverse ability levels of students. Each individual has different backgrounds, experiences, and learning needs, which are influenced by their living environment and previous experiences. At SMA Negeri 1 Cineam, Tasikmalaya Regency, West Java Province, there is significant homogeneity in terms of ethnicity, religion, and culture among learners. This homogeneity limits learners' understanding of cultural diversity and citizenship, which in turn can affect learners' ability to think critically and appreciate different perspectives. This phenomenon poses a challenge in introducing the concept of diversity and heterogeneity in the Indonesian nation.

To overcome this challenge, it is important for teachers to develop teaching methods that accommodate learners' diverse backgrounds. Inclusive and adaptive approaches can help overcome homogeneity and introduce the concept of diversity in a more effective way. Furthermore, learners should not only learn about culture and citizenship through theory, but also through hands-on experiences that enable learners to better understand and appreciate differences.

Facing these challenges, Civics teachers as the spearheads of the educational change process must try to find alternative learning model solutions that affect the ability to critically reason and the cultural and civic literacy of students. Civics teachers must be able to become directors in creating active, creative, and critically reasoning students so that they can compete in 21st-century ability (Ten Dam & Volman, 2004; Willemse et al., 2015). The creativity of Civics teachers is required to present a transformative learning model. A learning model that positions the teacher more as a facilitator and learning based on the realities of students' real lives so as to present critical and reflective knowledge (Murdiono, 2022).

The integrative model was created by Don Kauchak and Paul Eggen, building upon the conceptual framework of Hilda Taba's thinking. This approach advocates for the advancement of learning frameworks that cultivate critical reasoning abilities in students. (Kauchak & Eggen, 2012). Constructivism learning theory influences the development of integrative models that emphasize the active learning process based on the learning experience of learners. Learning The principle of constructivist learning that appears in the

integrative model is the active involvement of learners in learning, learners learn based on experience and facts and learners construct each. Therefore, the integrative model guides learners to develop critical reasoning ability by making connections between concepts so that they can generalize or make conclusions (Milman & Kilbane, 2014). The learning steps of the integrative model are presented in Table 3.

**Table 3**  
**Steps of the Integrative Model**

<b>Integrative Model Steps</b>	<b>Teacher Role</b>	<b>Students Role</b>
Describe, compare, and find patterns	The teacher asks students to describe, compare, and look for patterns in the information that the students have searched for. The teacher guides students in creating data banks in the form of journals, infographics, and notes.	Students search for information which is then described and compared. The results of the work are compiled to make a data bank in the form of journals, infographics, and notes.
Explaining similarities and differences;	The teacher asks students to explain the similarities and differences contained in the data bank that has been compiled.	Students explain the similarities and differences contained in the data bank.
Generate hypotheses	The teacher asks students to develop hypotheses based on the sources of information that have been obtained.	The teacher asks students to develop hypotheses based on the sources of information that have been obtained.
Generalize any conceptual relationships	The teacher asks the learners to generalize the learners' conclusions	Learners generalize to show an understanding of the broad relationships between the content studied.

Source: (Kauchak & Eggen, 2012; Milman & Kilbane, 2014)

In previous research, the integrative model can improve student learning outcomes that affect critical thinking ability in history and science subjects (Fazriyah et al., 2017; Wulandari, 2019). In addition, integrative learning methods can foster intellectual, emotional, spiritual, and social intelligence (Lubis, 2016). The development of integrative learning methods as an alternative solution to learning during the pandemic has been able to provide benefits in mastering the concept of learning Islamic Religious Education for students (Sari & Surana, 2022). Other research on cultural and civic literacy shows that cultural and civic literacy in Pancasila and Civics learning is not optimal because teachers lack understanding of the content and consider this material not very important, so it is not a priority in the curriculum and learning. In addition, students are also less sensitive to diversity and tolerance, indicating that cultural and civic values have not been well-embedded (Yusuf et al., 2020). In addition, the impact of PPKN learning on improving citizenship literacy concluded that students' citizenship literacy is strongly influenced by the implementation of civic education learning

in the classroom (Dewi & Budimansyah, 2020). However, this research focuses on the implementation of an integrative learning model in Civics learning with the aim of improving critical reasoning skills. In the context of cultural and civic literacy, the implementation of an integrative learning model in Civics learning aims to overcome obstacles in understanding cultural and civic literacy by teachers and increase students' sensitivity and tolerance for diversity.

The integrative model can combine facts into a stimulus to stimulate learners' cognition (Zhou et al., 2023). Thus, the implication of applying the integrative model is not only to increase understanding, but learners are able to apply the knowledge and ability gained in their lives. Applying the integrative model opens up great opportunities for innovation in education. Teachers have the opportunity to make careful preparations in designing and implementing lessons that integrate various disciplinary concepts relevant to the subject matter.

This paradigm shift not only directs learning to be more learner-centered but also encourages Civics teachers to adapt and meet the knowledge needs of students more effectively. The application of integrative learning models in the context of Civics is also in line with the demands of the times that demand a more contextualized learning approach that is relevant to the real lives of students. By incorporating cultural elements and socio-political realities into learning, Civics teachers can help students understand their role in society and the state. Therefore, the integrative model can create a dynamic learning environment and influence learners' critical reasoning ability and cultural and civic literacy.

Consequently, further investigation is required to ascertain the impact of the integrative model on the critical reasoning ability and cultural and civic literacy of students in high schools. The objective of this research is to gain a more profound comprehension of the impact of the integrative model on the attainment of Civics learning objectives, namely the formation of a generation that is not only academically proficient but also possesses robust critical reasoning and literacy abilities in the context of culture and citizenship.

## Research Method

This research employs a quantitative methodology, utilizing a quasi-experimental or pseudo-experimental approach. The quasi-experimental research method represents a variation of pure experimental research. The objective of experimental research is to ascertain the impact of an intervention on two groups, with one of these being subjected to special treatment. This allows researchers to identify interactions between two or more variables. (Creswell, 2011). The research design used is an initial test and final test with a non-equivalent control group design type.

In this study, there are two classes that will be studied with different treatments. The two classes studied are classes that are considered to have equality in cognitive, affective, and psychomotor. One class will be an experimental class by giving special treatment according to learning using an integrative model. While the control class is not given special treatment, the learning model used is the direct learning model. The research design is shown in table 4.

**Table 4**  
**non-equivalent control group design**

Group	Pretest	Treatment	Posttest
Experiment	O <sub>1</sub>	X	O <sub>2</sub>
Control	O <sub>3</sub>		O <sub>4</sub>

Information:

- O<sub>1</sub> : Pre-test in the experimental group
- O<sub>3</sub> : Pre-test in the control group
- O<sub>2</sub> : Post-test in the experimental group
- O<sub>4</sub> : Post-test in the control group
- X : Learning treatment with integrative learning model implementation

The population in this study were all students of class XI SMAN 1 Cinema Tasikmalaya Regency with a total of 177 students who were divided into 3 science specialization classes and 3 social specialization classes. The sample of this study were students from class XI IPA 3 and XI IPS 1, each of which amounted to 60 students. The sampling technique uses purposive sampling which samples without considering the levels in the population.

This study uses independent variables and dependent variables. The independent variable is the integrative learning model (X). The dependent variables in this study are critical reasoning ability (Y1) and cultural and civic literacy (Y2). The dependent variable will be calculated to find the success of critical reasoning ability and cultural and civic literacy seen from the score of students' answers to multiple choice questions in accordance with basic competencies and questionnaires regarding cultural and civic literacy focused on building tolerance in class and school.

This study utilized both test and non-test instruments to assess students' critical reasoning abilities and cultural and civic literacy. Test instruments in the form of multiple-choice questions were administered to experimental and control classes to obtain data in the form of scores from the initial and final tests. The multiple-choice question instruments were prepared based on the material or basic competencies being studied, namely the examination of cases of threats to ideology, politics, economy, society, culture, defense, and security, and the strategies to overcome them within the framework of Unity in Diversity. The multiple-choice questions that will be administered to students contain 20 items.

The non-test instrument used is a self-assessment questionnaire which aims to determine the level of cultural and civic literacy. The use of Likert model graded scale in this study is used to collect and analyze social phenomena with a scale score of 1 = strongly disagree (STS), scale 2 = disagree (TS), scale 3 = undecided (R), scale 4 = agree (S) and scale 5 = strongly agree (SS) (Anjaria, 2022).

## Result and Discussion

The normality test in this study used Shapiro-Wilk statistics because the research sample used was less than 100. The confidence interval used is 95% ( $\alpha = 0.05$ ) with the following hypothesis formulation Ha: the data is not normally distributed and Ho: the data is normally distributed. Classification of acceptance or rejection if  $-ASymp \text{ sig} > 5\% \geq Ho$  is accepted, meaning that the data is normally distributed. Meanwhile, if  $-ASymp \text{ sig} < 5\% \geq Ho$



is rejected, it means that the data is not normally distributed. The results of the normality test of critical reasoning ability data on the sample are presented in Table 5.

**Table 5**  
**Normality Test of Critical Reasoning Ability Question Data**

Category	Shapiro Wilk Normality Test Value	Description
Pre-test of critical reasoning ability in the control class	0,135	Normal
Post-test of critical reasoning ability in the control class	0,072	Normal
Pre-test of critical reasoning ability in experimental class	0,066	Normal
Post-test of critical reasoning ability in the experimental class	0,121	Normal

Source: Researcher's primary document, 2024

The normality test data on critical reasoning ability in the control and experimental classes in the table above shows that the initial and final test values in the control class show values of 0.135 and 0.072. Meanwhile, the initial and final test scores in the experimental class showed values of 0.066 and 0.12. This shows that the data is normally distributed because the sig value  $> 0.05$ . Therefore, the data on critical reasoning ability have met the requirements for analysis. Furthermore, the normality test was conducted for the questionnaire on cultural and civic literacy which is presented in Table 6.

**Table 6**  
**Normality Test of Cultural and Civic Literacy Questionnaire**

Category	Shapiro Wilk Normality Test Value	Description
Pre-test of critical reasoning ability in the control class	0,251	Normal
Post-test of critical reasoning ability in the control class	0,570	Normal
Pre-test of critical reasoning ability in experimental class	0,120	Normal
Post-test of critical reasoning ability in the experimental class	0,60	Normal

Source: Researcher's primary document, 2024

The normality test data for the cultural and civic literacy questionnaire in the control and experimental classes in the table above shows that the initial and final test scores in the control class show values of 0.251 and 0.57. Meanwhile, the initial and final test scores in the experimental class show values of 0.120 and 0.60. This shows that the data is normally

distributed because the sig value  $> 0.05$ . Therefore, the cultural and civic literacy questionnaire data has met the requirements for analysis.

Homogeneity testing is done through a test of homogeneity of variance with significant criteria  $< 5\%$  or  $0.05$  data are not homogeneously distributed and significant  $> 5\%$  or  $0.05$  data are homogeneously distributed. Homogeneity test data on critical reasoning ability and cultural and civic literacy questionnaires are presented in Table 7.

**Table 7**  
**Homogeneity Test Data of Critical Reasoning Skill Questions**

Category	Levene Statistic	Df1	Df2	Sig	Description
Control class critical reasoning ability	3,024	1	58	0,87	Homogen
Experimental class critical reasoning ability questionnaire	1,587	1	58	0,213	Homogen
Cultural and civic literacy questionnaire control class	0,007	1	58	0,933	Homogen
Experimental class cultural and civic literacy questionnaire	0,210	1	58	0,649	Homogen

Source: Researcher's primary document, 2024

Homogeneous test data on critical reasoning ability questions in the control class and experimental class showed a value of 0.87 and 0, 213. The homogeneous test data on the cultural and civic literacy questionnaire in the control class and experimental class showed a value of 0.933 and 0, 649. This shows that the data is homogeneous because the sig value  $> 0.05$ . Therefore, the homogeneity test data on critical reasoning ability and cultural and civic literacy questionnaires have met the requirements for analysis.

The first hypothesis of this study is a significant effect on the application of an integrative model with a discovery learning model on students' critical reasoning ability in Civics learning in Class XI high school. The results of the paired samples t-test of the first hypothesis are presented in table 8.

**Table 8**  
**First Hypothesis Paired Sample Test Results**

	N	Mean	Std. Deviation	Std. Error Mean	t	Sig.(2-tailed)
Pair Pretest – Post	30	-21.000	9.86110	1.80038	-11.664	0.000

Source: Researcher's primary document, 2024

Based on the table, it is known that the experimental class has an average value before and after treatment has a value of 59.67 and 80.6. The r square value is 15.6% which means that the integrative model variable (X) affects the critical reasoning ability variable (Y1) by 15.6% and 84.4% is influenced by other factors. The number of respondents (N) is 30 with a standard deviation value of 9.820 and 7.849. For the P value (sig) of  $0.000 \leq 0.05$  and has a t value of -11.664 and t table 2.048. The t value is negative because the average value of the

initial test critical reasoning results is lower than the average final test critical reasoning results, therefore a negative t value can be positive. So the t value is  $11.664 > t_{table} 2.048$ , it can be concluded that  $H_0$  is rejected or  $H_a$  is accepted, which means that there is a significant and positive effect on the application of the integrative model on critical reasoning ability.

The second hypothesis of this study is a significant effect on the application of an integrative model with a discovery learning model on cultural and civic literacy in Civics learning in Grade XI High School. The results of the paired samples t-test of the second hypothesis are presented in table 9.

**Table 9**  
**Second Hypothesis Paired Sample Test Results**

	N	Mean	Std. Deviation	Std. Error Mean	t	Sig.(2-tailed)
Pair Pretest - Post	30	-7.33333	5.56673	1.01634	-7.215	0.000

Source: Researcher's primary document, 2024

Based on the table, it is known that the experimental class has an average value before and after treatment has a value of 80.10 and 87.43. The r square value is 16.5% which means that the integrative model variable (X) affects the cultural and civic literacy variable (Y2) by 16.5% and 83.5% is influenced by other factors. The number of respondents (N) is 30 with a standard deviation value of 5.517 and 4.559. For the P value (sig) of  $0.000 \leq 0.05$  and has a t value of -7.215 and t table 2.048. The t value is negative because the average value of the initial test critical reasoning results is lower than the average final test critical reasoning results, therefore a negative t value can be positive. So the t value is  $7.215 > t_{table} 2.048$ , it can be concluded that  $H_0$  is rejected or  $H_a$  is accepted, which means that there is a significant and positive effect on the application of the integrative model on cultural and civic literacy.

The gateway to critical reasoning begins with the ability to understand problems by identifying information that requires strong reading literacy (Bean & Melzer, 2021). Creativity and critical reasoning ability are part of high-level thinking ability in humans, so critical reasoning ability is obtained from the learning experience process to be used as a means to solve problems (Wechsler et al., 2018). This indicates that the ability to reason critically is one of the basic competencies of students in understanding, identifying, and evaluating all forms of information received (Butler et al., 2017; Simonovic et al., 2023).

Youngerman's research (2018), on the integrative model in the learning process of essay writing by students, concluded that integrative learning is able to produce students' cognitive abilities in making concept connections, uniting writing sources, and integrating them into one essay. In the essay, it turns out that students are able to integrate sources of information ranging from two sources of information, more than two sources of information, and metacognitive information sources. The ability of learners to integrate apparently includes the ability to connect, apply, and synthesize information.

This is reinforced by research conducted by Mujianto (2019) on improving student learning outcomes with an integrative model, showing an increase in student learning outcomes marked by an increase in learning completeness and critical reasoning ability in the form of managing information as material for suggestions and criticism of the environment.

In addition, in the integrative model, teachers are required to better understand the socio-psychological conditions of students and prepare attractive learning media so that learning is more meaningful and involves students. Thus, the integrative model is one of the learning innovations that can be applied by teachers as one of the demands of the times. Integrative learning can improve students' ability to reason critically which is needed in facing world challenges (Handayani, 2018).

The integrative model is a learning approach that develops learners' knowledge systematically through training critical reasoning ability. It connects, applies, and synthesizes information from multiple contexts and perspectives, enabling learners to apply new insights in a variety of situations. (Illeris, 2018; Perry-Hazan & Somech, 2023). The integrative model is an alternative for students to improve the critical reasoning ability needed in the modern era because students are invited to make connections between concepts so that the information obtained is more complete (Selznick et al., 2022).

The integrative model, in view of constructivism theory, emphasizes the importance of learning that allows learners to build their own understanding through a process of reflection and critique of the subject matter. (Doychinova, 2023; Malhotra et al., 2022). By applying an integrative model in learning Pancasila and Citizenship Education (PPKn) with the topic of Threats to the Unitary State of the Republic of Indonesia (NKRI), students are invited to link various concepts from other subjects. The integrated subjects include Islamic Religious Education, Economics, Geography, and Sociology as materials for analysis. Through this approach, learners not only learn about the threats to NKRI separately but also understand how various aspects of science contribute to understanding and dealing with these threats. For example, from the perspective of Islamic Religious Education, learners can learn moral and ethical values that can be used to counter radicalism and extremism that threaten national unity.

From an Economics perspective, learners can analyze how economic instability can be a threat to the country. Geography offers a different perspective by allowing learners to study physical and environmental threats to the Republic of Indonesia, such as natural disasters, climate change, and environmental damage. Meanwhile, from Sociology, learners are invited to analyze social and cultural dynamics that can pose a threat to national unity. Learners can learn how social conflict, discrimination, and social injustice can divide society. The integrative learning design in Civics learning is shown in Figure 1.



Figure 1

### Civics Integrative Learning Design

Source: Processed by researchers, 2024

In addition, integrative learning emphasizes the application of knowledge in real situations. One of the indicators of successful learning is applying the knowledge that has been learned in various life contexts (Gallagher, 2019). This is in line with contextual learning theory emphasizing the importance of learning that is relevant to the context of learners' real lives. This approach recognizes that learners learn better when learning materials are presented in a context that is meaningful to them, and that matches their experiences, needs, and interests. Therefore, teachers are expected to present learning materials in a context that is familiar and meaningful to students, so that they can relate these concepts to their own life experiences (Daragmeh & Dawwas, 2017; Selvianiresa & Prabawanto, 2017). The process also encourages critical and creative thinking, which is indispensable in an ever-changing and complex world (Vermunt et al., 2023).

Critical reasoning ability must be possessed by every learner in accordance with the spirit of the Pancasila learner profile. Critical reasoning abilities that learners must have are the ability to process information objectively and correctly, build correlations between information, analyze information, and make conclusions (Satria et al., 2022).

The implementation of the integrative model of Civics learning in the 21st century leads to the ability of students to reason critically in response to world challenges and as part of global citizens (Cogan & Derricott, 2012; Setiarsih, 2017; Somantri, 2001). Critical reasoning ability is a process of rationality that consists of analyzing and evaluating information to produce logical conclusions. This rationality is needed by learners to understand and deal with the phenomena of everyday life both scientifically and socially (Cederblom & Paulsen, 2011; Thomson, 2002). Therefore, Civics learning should include elements of physical environment learning; social; financial economy; legal politics and government; religious ethics, and technological knowledge. This supports the learning objectives of Civics in today's modern era, namely forming good, religious, intelligent, and ideological citizens (Balogun & Yusuf, 2019; Santoso et al., 2022).

International Civic and Citizenship Education Study (ICSS) reveals that civic education has the scope of the organization of government and the economic system of the country, the principles of citizenship, citizen participation, and civic identity. (Schulz et al., 2023). Each scope has a cross-disciplinary study of social science which certainly requires the teacher's ability to mix learning materials. This is what strengthens Civics learning to fulfill the dimensions of students who not only discuss politics and state ideology but economics and socio-culture, as well as the ability to uphold the values of law, democracy, nationalism, and tolerance with the ability to reason critically. (Doğanay, 2012; Murdiono & Wuryandani, 2021).

The results of research conducted by Ma'ruufah (2023) that strengthening cultural and civic literacy aims to improve national insight that students, as young citizens can live in accordance with the values of Pancasila, are carried out through interactive and fun learning models. The use of interactive learning models helps students become active learners, increase their interest in reading, and have a broader insight into Pancasila and citizenship.

Aziza dan Amrazi (2017) revealed that teachers have an important role in strengthening cultural and civic literacy in classrooms and schools. Teachers must be able to plan, implement, and evaluate effective and fun learning in strengthening cultural and civic literacy

to improve understanding of tolerance, empathy, and responsibility in the classroom. In addition, teachers can provide exemplary attitudes in tolerance, empathy, and responsibility. Civics subjects have an important role as lessons that provide strengthening of cultural and civic literacy to students (Sujastika & Abdulkarim, 2022). Civics teachers have a central role in strengthening cultural and civic literacy during the challenges of massive information flows that can create conflicts. (Keegan, 2021).

Building an attitude of tolerance, empathy, and responsibility in learners requires holistic efforts in the school environment and the environment of learners' daily lives. Supporting the strengthening of learners' cultural and civic literacy in schools can be done with a school program based on learner activeness in the form of religious activities, social service activities, cultural arts activities, and extracurricular activities. The program will have an impact on strengthening students' cultural and civic literacy in understanding cultural differences and citizenship awareness of their rights and obligations (Maylitha et al., 2024).

Pancasila and Civic Education teachers should train students to respect and accept Indonesia's cultural diversity, even though students are in a homogeneous environment. This includes getting to know the different tribes, customs, languages, and religions that exist across the country. This understanding will be an important provision for them in living in the wider society. The integrative model encourages collaboration between learners so as to build tolerance, and respect for differences and build an inclusive attitude in social interaction (Graham & Longchamps, 2022; Kumar Shah, 2019). In addition, integrative learning encourages a contextual learning process that encourages learners to have empathy and social responsibility. The development of tolerance, empathy, and responsibility of learners as part of cultural and civic literacy is very important to be built in learners as an effort to build a society that is aware of its rights and obligations and could actively participate in the democratization process. (Natil, 2021; Schulz et al., 2023).

## Conclusion

The results showed that first, the application of the integrative model in learning Pancasila and Citizenship Education (PPKn) at SMAN 1 Cineam affects the critical reasoning ability of students. This finding is consistent with previous research showing that the integrative model can improve important ability such as collaboration, creativity, decision-making, and critical reasoning ability. This model encourages learners to link concepts from various disciplines, enriches understanding, and facilitates the development of critical reasoning ability.

Second, the application of the integrative model in learning Pancasila and Citizenship Education (PPKn) at SMAN 1 Cineam affects students' cultural and civic literacy. The integrative model also encourages the development of important interpersonal and intrapersonal abilities, such as tolerance and empathy, through discussions and group work involving various points of view. Learners learn to listen to and respect others' opinions and work together to solve problems. Civic responsibility is strengthened through an understanding of rights and responsibilities and an active role in the community. More research is needed to expand the range of materials taught. In addition, it is important to recognize that each school has different ethnic, religious, and racial diversities that may affect learners' understanding of and responses to civics materials. Therefore, further research that explores the application of integrative models to the cultural and civic literacies of high school

students in the context of diversity will provide deeper insights and be relevant to inclusive and learner-centered learning practices.

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