

Ecological citizenship in textbooks on Pancasila and Citizenship Education subjects at the secondary education level

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ABSTRACT

This study was conducted to (1) identify the content of ecological citizenship in the Pancasila and Citizenship Education subject textbook and (2) describe the development of ecological citizenship as teaching material in Pancasila and Citizenship Education subjects at the secondary education level. This study used a descriptive qualitative approach with content analysis methods. Data collection was carried out through reading, observing the contents of the book, and taking notes with careful analysis of the ecological citizenship content contained in the textbook. The unit of analysis in this study was the content of ecological citizenship in the form of text, material descriptions, pictures, tables, and student competency test assignments containing material about the environment. The data were analyzed by examining the content on each page of the book, which consisted of several stages which are (1) data collection; (2) recording; (3) reduction; (4) conclusions; (5) description of study results. The results showed that thematically there was no material content that focused and specifically discussed ecological citizenship in the Pancasila and Citizenship Education subject textbook at secondary education. Limited content of the new environment was presented via pictures and short descriptions. The development of ecological citizenship in the Pancasila and Citizenship Education subject was carried out by developing core competencies and basic competencies of Pancasila and Citizenship Education which emphasize the formation of knowledge, skills, character of ecological citizenship competencies.

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Introduction

Fostering humanity's awareness, concern, and responsibility to preserve and maintain the balance of the environment in the 21st century is an important and urgent demand. Universally, all countries in various parts of the world experience and face the same global problem: the systemic environmental crisis. Reality shows that the environmental crisis in the 21st century, which results in global warming, climate change, damage to marine ecosystems, forest destruction, scarcity of clean water, water pollution, air pollution, flooding, and the extinction of biodiversity, are caused by poor environmental management.

Environmental problems have become one of the major global problems in the 21st century. Cogan and Derricott (Murdiono, 2017) revealed at least three global problems that are challenging for countries in the world. They are (1) the rapid development of economic globalization; (2) advances in technology and communication; (3) the increase in the world's population, which causes environmental problems. One of the three global problems is the environmental problem. The rapid increase in the world's population can cause a decrease in the quality of the environment because human behavior affects the environment.

Karsten, Kubow, and Matrai have similar views (Murdiono, 2017) that there are nineteen global trends that the world's countries must face. Among the nineteen global trends, there are two

problems in the environmental field. They are (1) population growth and environmental damage, which causes the cost of obtaining clean water to rise significantly, (2) deforestation which affects the diversity of human life. Research conducted by Oikawa (2014) also revealed that people in the 21st century face environmental crises (p. 16). Environmental crises such as water and air pollution, depletion of the ozone layer, tropical rain forests, biodiversity crisis, global warming, and social problems impact the environment. In his research, Nagra responded to the environmental crisis that occurred in the 21st century as a global catastrophe for all countries in the world.

Indonesia is one of the countries experiencing environmental damage in the 21st century. Various environmental problems occur in Indonesia, ranging from forest fires which occur almost every year, illegal logging, damage to marine ecosystems, water, and air pollution, disposal of factory/industrial waste which pollutes the environment, to things that are still common in the lives of Indonesian people such as the habit of littering. This environmental problem is mainly due to industrial progress and development, not balanced with attitudes and behaviors that preserve the environment (Mariyani, 2017).

The problem of cross-country environmental crises, especially in Indonesia, requires efforts to resolve, including through the education sector's contribution. Education is a strategic effort to overcome state problems and improve the quality of life of every human being. Complex environmental problems can be solved with a multidimensional and multidisciplinary approach to scientific studies, including environmental-based education for citizens. In the context of Indonesian education, Pancasila and Citizenship Education (PPKn) plays a strategic role in producing citizens who care about the environment by protecting, managing, and preserving the environment. Pancasila and Citizenship Education (PPKn) teaches rights and obligations as citizens. It forms the character of citizens who care and are responsible for the environment. The character of citizens who are aware of and care about the environment is called ecological citizenship.

Ecological citizenship is essentially an attitude or ethics of citizens imbued with a sense of concern and responsibility for the environment by trying to manage, maintain, protect, and preserve the environment. Ecology itself can be defined as the understanding and attachment of living things to their environment (Karatekin & Uysal, 2018) so that ecological citizenship is citizens' understanding of environmental issues, status, rights, and responsibilities in managing the environment overcoming environmental problems, and promoting positive and sustainable human life with the environment (Clarke & Agyeman, 2011; Gebbels et al., 2011; Godrej, 2012; Schild, 2016). Ecological citizenship can be understood as a human right to the environment and a responsibility not to damage the environment and participate in preserving the carrying capacity of the environment (Raessens, 2019).

Ecological citizenship has become an important concept and idea today. The global trend which has caused environmental damage has become a worldwide concern. It is because the environment is an aspect of life that is very important in supporting the survival of human life, which is not only for a short period but for a long time. The idea of ecological citizenship appears and implies that society as citizens and also citizens of the world must protect and preserve their environment. The concept of ecological citizenship can guide humans to behave and behave towards nature in an effort to maintain environmental conservation and sustainability (Sari et al., 2020). According to Sari, et al., (2020), ecological citizenship is a concept that describes the relationship between humans and the environment, in which there is an element of concern and awareness, which is then actualized in the form of applicable behavior through habits and activities based on the environment (p. 93).

The study of ecological citizenship, as described above, is one of the areas of Pancasila and Citizenship Education that focuses on aspects of citizens' rights and obligations towards the environment (Sari et al., 2020). Characteristics of Ecological Citizenship in Pancasila and Citizenship Education subjects can be contained in basic competencies, the scope of the material in the form of

motivation in ecological citizenship, the scope of material containing the values of ecological citizenship, the scope of material-oriented towards empowerment and skills of ecological citizenship, as well as the scope of material containing knowledge ecology such as around ecological issues, the essence and urgency of ecological citizenship, rights and obligations, and participation which can be done as the embodiment of ecological citizenship. Ecological citizenship in Pancasila and Citizenship Education subjects is believed to equip students with knowledge about the environment, rights and responsibilities towards the environment, skills and active participation of citizens in environmental problems, and the character of citizenship, which cares for the sustainability of the environment.

As one of the areas of study for Pancasila and Citizenship Education, the context of ecological citizenship in the form of basic competencies, aspects of knowledge, skills, and inculcation of environmental values has been included in the Pancasila and Citizenship Education subject in schools, but it is not systemic because it has not become a prioritized learning competence. The context of ecological citizenship integrated into the curriculum and content of Pancasila and Citizenship Education matter is still limited and partial. In addition, the application of ecological citizenship materials by teachers in the Pancasila and Citizenship Education learning process still tends to be limited to providing material, not yet at the level of practice in shaping students into ecological citizens who gain experience and values in protecting and preserving the environment (Pertiwi & Samsuri, 2017). This reality occurs because ecological citizenship has not been a comprehensive and deeply rooted learning competency in the Pancasila and Citizenship Education curriculum in schools, especially at the secondary education level.

This study was conducted to identify the content or material content of ecological citizenship in Pancasila and Citizenship Education course textbooks for students at the secondary education level to develop and strengthen ecological citizenship in Pancasila and Citizenship Education course textbooks. The novelty of this research is an in-depth exploration of ecological citizenship in Pancasila and Citizenship Education textbooks for secondary education and the development of ecological citizenship as one of the teaching materials in Pancasila and Citizenship Education learning in schools. Previous research has generally studied social movements, community organizations, or non-governmental organizations in ecological citizenship in society. Besides that, research on ecological citizenship in the study of Citizenship Education in Indonesia is still relatively new. Only a small amount has been done.

Method

This study was a content analysis research whose research data sources were documents so that certain locations did not limit the study. This study used a qualitative approach with the method of content analysis (content analysis). The analysis was carried out on the Pancasila and Citizenship Education textbooks for students at the secondary education level, grades VII-IX and grades X-XII 2013 revised 2017 and 2018 editions of the curriculum published by the Ministry of Education and Culture of the Republic of Indonesia. The part which was identified and analyzed was the content of ecological citizenship contained in the Pancasila and Citizenship Education Class VII-IX and X-XII textbooks. This study was to identify the extent to which ecological citizenship was internalized in Pancasila and Citizenship Education teaching materials and examine how the development of ecological citizenship as teaching material in Pancasila and Citizenship Education subjects at the secondary education level. Data collection was done by reading, observing the book's contents, and taking notes with careful analysis of the content of ecological citizenship in the textbook. The main data in this study was the content of ecological citizenship in the form of material description texts (themes/topics), pictures, tables, and student competency test assignments containing material about the environment. Qualitative content analysis by examining the content of the material in each

book chapter which showed the content of ecological citizenship. Data were analyzed through several stages, which are (1) procurement/data collection; (2) recording; (3) reduction; (4) drawing conclusions; (5) narration/description of research results.

Results and Discussion

The Pancasila and Citizenship Education subject textbooks analyzed in this study were student books for grades VII-IX for Junior High School/Madrasah Tsanawiyah (SMP/MTs) and grades X-XII for High School/Madrasah Aliyah/Vocational High Schools/Vocational Madrasah Aliyah (SMA/MA/SMK/MAK) 2013 revised edition of the 2017 and 2018 curriculum published by the Ministry of Education and Culture of the Republic of Indonesia. Overall, the student book for grades VII-IX consists of 18 chapters with details of 6 chapters in class VII, six chapters in class VIII, and six chapters in class XI. While the student books for class X-XII consist of 17 chapters, with details of class X totaling seven chapters, class XI consisting of 6 chapters, and class XII consisting of 4 chapters. Descriptively, the theme of each book chapter for students in grades VII-IX and grades X-XII is presented in table 1 in the appendix.

Each chapter in the textbooks for students in grades VII-IX and grades X-XII was observed and analyzed in terms of the content of the material on ecological citizenship was presented. Characteristics of the content of ecological citizenship in Pancasila and Citizenship Education textbooks are (1) basic competencies (KD) which contain an orientation to the environment; (2) learning materials containing motivation/encouragement and invitation to implement ecological citizenship; (3) material which contains (cognitive) knowledge/understanding about ecological citizenship which can be in the form of the essence and urgency of ecological citizenship, ecological issues, rights and obligations of citizens to the environment, factors causing environmental damage, and participation that can be done by citizens the state in implementing ecological citizenship; (4) materials containing ecological (affective) citizenship values; (5) materials that contain skills and empowerment of citizens to implement ecological citizenship (psychomotor). The development of ecological citizenship competence, which consists of knowledge, skills, and character of ecological citizenship, was carried out through a literature review and other 13 chapters is by examining various library sources such as books, journals, and documents which are by the research focus, which is the competence of ecological citizenship.

Based on observations and content analysis reviews of each chapter of the student book, the content of ecological citizenship has been presented in several chapters of Pancasila and Citizenship Education matter, both student books for grades VII-IX and grades X-XII. However, the content of ecological citizenship presented is still limited in pictures, tables, and brief descriptions in some of these chapters. In contrast, in other chapters, it does not appear at all. Then, overall, from all the chapters in the Pancasila and Citizenship Education book for secondary education, there is no specific chapter or theme related to ecological citizenship specifically and intact as one of the Pancasila and Citizenship Education contents matter. The material chapter containing the content of ecological citizenship in student books for grades VII-IX for SMP/MTs can be seen in table 2 in the appendix.

Overall, as the data presented in table 2 shows, ecological citizenship in the Pancasila and Citizenship Education textbook for grade VII-IX students is only contained in 5 chapters out of a total of 18 chapters of textbook material for grade VII-IX students. Ecological citizenship is presented in the form of pictures, info tables, and brief descriptions. Most of the content of ecological citizenship is presented in chapter 5 with two image content. In contrast, in the other four chapters, there is only one content each. Although the content of ecological citizenship has been contained in 5 chapters, the amount of content is still small and limited, especially since the other 13 chapters do not contain content of ecological citizenship. Specific discussion topics or special chapters containing teaching materials on ecological citizenship are also not included in the Pancasila and Citizenship Education

Class VII-IX subject matter. The content of ecological citizenship in student books for grades X-XII at the high school level/equivalent is presented in table 3 in the appendix.

Ecological citizenship in Pancasila and Citizenship Education course textbooks for students in grades X-XII is contained in 7 chapters out of a total of 17 chapters. Similar to the content of ecological citizenship in the Pancasila and Citizenship Education book for students in grades VII-IX, ecological citizenship in student books for grades X-XII is also presented in the form of pictures and brief descriptions. The content of ecological citizenship in student books for grades X-XII is mostly contained in grades X and XI, each with three chapters. Meanwhile, the student book for class XII is only contained in 1 chapter of 4 chapters. However, the overall content of ecological citizenship in Pancasila and Citizenship Education textbooks for students in grades X-XII is still limited. There are also no specific chapters or topics of discussion containing teaching materials on ecological citizenship.

The limitations of ecological citizenship material content in Pancasila and Citizenship Education textbooks for secondary education are also revealed from the results of research conducted by Mariyani (2017) that the scope of Pancasila and Citizenship Education learning in schools that discuss material about the environment is still very minimal. These findings were analyzed by looking at the core competencies and basic competencies of Pancasila and Citizenship Education for secondary education. The basic competencies considered to contain environmental content are only KD 3.6 and KD 4.6 for SMP/MTs level (p. 13). A similar reality is also shown from the results of research conducted by Pertiwi & Samsuri (2017) that ecological or environmental values are already contained in formal Pancasila and Citizenship Education. However, in the learning process, it has not yet arrived at the practice of how students behave and behave in real life in society to manage and preserve the environment (p. 154). If analyzed, the limited context of ecological citizenship in the curriculum or Pancasila and Citizenship Education learning can be caused by two factors, which are contextual factors and structural factors. Contextual factors in the form of socio-political structures and structural factors in the form of the education system. The socio-political structure has a real influence and impact on the content, goals, orientation, and paradigm of Pancasila and Citizenship Education, in other words, Pancasila and Citizenship Education is strongly influenced by the national politics of the country, including responding to contemporary citizenship trends, in this case, the response to ecological citizenship. Mariyani's research (2017) confirmed that the government's attention is still lacking to place environmental issues in the broader context in the lives of citizens, including through the orientation of the Civic Education approach and learning paradigm that develops ecological citizenship (p. 11). As for the structural factor, which is the education system, Mariyani's research (2017) also confirmed that the education system through school institutions is still minimally discussed for the formation of ecological citizenship and community participation (p. 11).

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Teaching materials on ecological citizenship in Pancasila and Citizenship Education learning at the secondary education level are very important to be developed in the global era of the 21st century. This is especially in addressing the environmental crisis in the 21st century, which has caused various environmental problems, such as global warming, climate change, damage to marine ecosystems, forest destruction, scarcity of clean water, water pollution, air pollution, floods, to the extinction of biodiversity, so that awareness of the environment is very important to be fostered in students. Through teaching materials for ecological citizenship in Pancasila and Citizenship Education learning, teachers can teach and foster environmental awareness in students. Research conducted by Halimah and Nurul (2020) emphasized that the right way to shape the attitudes and behavior of citizens who are aware and responsible for the environment is through education at the secondary school level. This education is carried out by adding a citizenship curriculum, Pancasila and Citizenship Education learning which develops ecological citizenship (p. 142).

Pancasila and Citizenship Education learning oriented towards ecological citizenship will contribute to the formation of attitudes and behavior of citizens who are aware, concerned, and responsible for the environment. Godrej (2012) stated that in essence, ecological citizenship will equip citizens with knowledge about the environment, rights and obligations to the environment, and skills, and active participation in overcoming environmental problems and environmental sustainability (p. 452). Pancasila and Citizenship Education (PPKn) with its position as a subject-oriented to everyday life, can form students with ethical and ecological competence (Aulia et al., 2018). Therefore, ecological citizenship as teaching material in Pancasila and Citizenship Education learning at the secondary education level is necessary. Pancasila and Citizenship Education (PPKn) is needed effectively to produce young citizens who care, are responsible, protect and preserve the environment, and contribute to solving environmental problems, both nationally and globally.

Efforts to add ecological citizenship as teaching material in Pancasila and Citizenship Education books for secondary education begin with competency development, both core competencies and basic competencies. This is because the scope of the ecological citizenship material that will be used as teaching material is influenced by core competencies and basic learning competencies. Suppose the core competencies and basic competencies have relevance to ecological citizenship. In that case, the material content and content of ecological citizenship will often appear or be presented a lot.

Based on the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 37 of 2018 as the latest amendment to the provisions that regulate and describe core competencies and basic competencies of subjects in the 2013 curriculum for basic education and secondary education, showing the core competencies of Pancasila and Citizenship Education as the basis for the development of ecological citizenship has implicitly contained in the core competencies of social attitudes, core competencies of knowledge, and core competencies of skills. The core competencies of social attitudes of Pancasila and Citizenship Education for SMP/MTs level substantially require competencies that demonstrate honest, disciplined, responsible, caring behavior shown by tolerant and mutual cooperation behavior, polite behavior and self-confidence in interacting effectively with both the social and external environment with nature. Ecological citizenship is implicitly contained in each of the core competencies of social attitudes, both for SMP/MTs and SMA/MA/SMK/MAK levels, which is the desire to form caring attitudes and behaviors, mutual cooperation, cooperation, responsiveness, pro-active, and be responsible. In the context of ecological citizenship, attitudes and behaviors are civic characteristics that care and are aware of the environment.

The core competencies of Pancasila and Citizenship Education knowledge for the SMP/MTs level are substantially understanding and applying knowledge consisting of factual, conceptual, and procedural knowledge based on curiosity about science and technology, art and culture related to visible phenomena and events. Meanwhile, the core competencies of Pancasila and Citizenship Education subject knowledge for SMA/MA/SMK/MAK levels are substantially understanding, applying, and analysing knowledge consisting of factual, conceptual, and procedural knowledge based on curiosity about science and technology, arts, and culture, humanities with insight into humanity, nationality, state, and civilization related to the causes of phenomena and events. Ecological citizenship contained in the core competencies of knowledge of Pancasila and Citizenship Education subjects for both SMP/MTs and SMA/MA/SMK/MAK levels is the understanding and application of factual, conceptual, and procedural knowledge in various fields and phenomena in life, which means including environmental fields and phenomena. In essence, Pancasila and Citizenship Education is learning-oriented to the daily life of citizens in all aspects of life, including environmental aspects.

While the core competencies of Pancasila and Citizenship Education subject skills at the SMP/MTs and SMA/MA/SMK/MAK levels, in general, both levels emphasize skills to process, reason, and present in the concrete realm and related abstract realms which students learn in school, so that skill competence will follow or be based on knowledge competence. It is because civic skills are developed from civic knowledge. In the context of ecological citizenship, if the core competencies of knowledge are studying, containing, and emphasizing environmental aspects, the core competencies of skills will also be oriented in this way, both processing, analyzing, or reasoning skills. As well as presenting knowledge in the realm of concrete and abstract related to the environment. These skills are interpreted as ecological skills, which can be intellectual skills and participation skills in the environmental field.

After having core competencies as a reference for the development of ecological citizenship in Pancasila and Citizenship Education learning, the next step is the development of basic competencies. Mariyani's research (2017) showed an example of developing basic competencies for Pancasila and Citizenship Education subjects for SMP/MTs level which is linked to ecological literacy competence. The basic competencies of Pancasila and Citizenship Education subjects related to the basic competencies of ecological literacy are KD 3.6 which relates to the concept of love for the homeland and defending the country in the Unitary State of the Republic of Indonesia, and KD 4.6 which requires students to organize environmental activities that reflect the concept of love for the homeland and defend the country in daily life. The relationship is as follows; the first competence, cognitive (head). Cognitive competence can be defined as civic knowledge, which is divided into 3 (three) aspects of ecological knowledge: (1) approaches to issues in various perspectives; (2) understanding of the main principles of ecology; and (3) critical thinking, creative, solutive, and able to use their knowledge to make changes. The indicators of achievement of success developed are composed of: (1) students are able to collect facts and data on cases of environmental damage; (2) students are able to classify environmentally destructive behavior which is often carried out in the school environment; (3) students are able to identify indicators of the causes of environmental damage; (4) students are able to describe the consequences of environmental damage (pages 14-15).

The second competency is active (hands). Active competence can be defined as citizenship skills (civic skills) which are developed into 3 (three) aspects of ecological skills: (1) making objects, tools, and procedures or steps needed by the community to care for the environment; (2) turning beliefs into concrete actions, applying knowledge in life practices; (3) adjust and evaluate the use of energy and resources. The indicators of success are: (1) students can practice the procedures and efforts to

manage the environment; (2) students are actively involved both at school and outside of school in environmental conservation activities; (3) students are able to inform the procedures for environmental conservation.

The third competence is emotional (heart). Emotional competence can be understood as a civic disposition that is developed into 3 (three) aspects of ecological character: (1) empathy and care for others and the environment; (2) respecting diversity, working in diversity, and having good goals and motivations; (3) committed to justice for others. The indicators of achievement developed are composed of: (1) students are able to show attitudes and behaviors that care about the environment; (2) students commit to be wise in managing the environment; (3) students commit to play a role in managing and preserving the environment.

As exemplified above, the development of ecological citizenship competencies shows the relevance between ecological citizenship competencies and the main competencies of Pancasila and Citizenship Education subjects. The main competencies of Pancasila and Citizenship Education are used as the basis for the development of ecological citizenship in the Pancasila and Citizenship Education school textbooks. Pancasila and Citizenship Education's main competencies that function as the basis for developing ecological citizenship competencies can refer to the three dimensions of Pancasila and Citizenship Education developed by Branson (1999), which consist of civic knowledge and civic skills, and civic character. Citizenship knowledge can be understood as knowledge or understanding which citizens must master. Substantially this dimension includes (1) knowledge of citizenship, which can be in the form of politics and government; (2) political system; (3) democratic values, goals and principles; (4) international relations, and; (5) the role of citizens in a democracy (Branson, 1999).

The second dimension of Pancasila and Citizenship Education is citizenship skills. Branson (1999) explained that citizens need intellectual and participatory abilities if they exercise their rights and fulfill their obligations as members of a sovereign state. Therefore, citizenship skills include (1) intellectual skills which consist of identifying, describing, explaining, analyzing, evaluating, taking and maintaining positions on public issues (taking and defending); (2) participatory skills consisting of the ability to influence policies (influencing); describe the problem in detail (monitoring); building coalition relationships, negotiating, and making compromises to get consensus (interacting); conflict management (pages 15-17).

The third dimension is civic dispositions. The character of citizenship can be understood as the formation of character. The citizenship character formed consists of a private character and a public character. Private characters can include honesty, responsible, diligence, disciplined, respect for diversity, and differences of opinion. The public character can be in the form of law-abiding behavior, willingness to participate, commitment to the results of deliberation, respect for everyone's rights, tolerance, nationalism and patriotism, and being able to place between public and private interests (Branson, 1999).

Conceptually, ecological citizenship competence is developed from civic knowledge, civic skills, and civic character as described. However, it is adapted to the characteristics of ecological citizenship, which emphasizes civic knowledge about the environment, citizenship skills in environmental issues, and civic character towards the environment. It is in line with the views of McBride et al. (2013), which explains the relationship between the environment in Pancasila and Citizenship Education subjects, which relates to environmental problems which occur in human life, how humans affect the environment, plans activities and actions on the environment, and can bring about better changes to the environment (p. 5).

Thus, the ecological citizenship competence developed in the Pancasila and Citizenship Education textbook for secondary education students focuses on the formation of civic knowledge about ecology, ecological skills, and the formation of the character or character of ecological citizenship. There are seven indicators proposed by Simmon (McBride et al., 2013) which can make individuals aware of the environment. They are (1) morality related to environmental problems; (2) communication skills; (3) awareness of the environment; (4) knowledge of the environment; (5) the ability to implement and evaluate environmental care activities in the community; (6) practice and support environmentally friendly and caring policies; (7) the ability to bring about change.

Based on the three dimensions of Pancasila and Citizenship Education developed by Branson (1999); the results of Mariyani's research (2017) which linked the basic competencies of Pancasila and Citizenship Education subjects at the SMP/MTs level with the basic competencies of ecological literacy; and the relationship between Pancasila and Citizenship Education and the environment/environmental ethics as well as seven indicators which can make individuals aware of the environment as described in the research of McBride, Brewer, Berkowitz, & Borrie (2013), the following is presented on the development of competencies and teaching materials for ecological citizenship in Pancasila and Citizenship Education learning for secondary education as an integral part of previous studies and research results, which is then adapted to the characteristics and problems of the environment in Indonesia with a focus on the formation of civic knowledge competence on ecology (ecological knowledge), ecological skills competence, and competence in forming the character or character of ecological citizenship (see table 4 in the appendix).

First, civic knowledge about ecology (ecological knowledge). Citizens' knowledge of the environment becomes the basis for building environmental awareness and preservation, which includes: (1) knowledge of citizenship (citizens' rights and obligations), ecological concepts, and ecological citizenship; (2) approaches to environmental issues from various perspectives, and case examples; (3) the role and actions of the government in realizing the values and goals of ecological citizenship; (4) international relations in relation to the environment; (5) policies related to the environment at the regional (local), national, and global levels; (6) the role of students in protecting and preserving the environment; (7) the impact and influence of human actions on the environment; (8) conflicts arising from environmental problems; (9) sustainable development program in environmental management.

Second, ecological skills. Ecological skills can be in the form of (1) critical thinking skills in identifying, describing, explaining, analyzing, evaluating, and taking roles on environmental issues; (2) communication skills and influencing policies related to the environment; (3) negotiation and compromise skills in making agreements related to the environment; (4) skills in managing conflict or solving problems related to the environment; (5) skills to implement environmental care activities; (6) information technology skills related to the environment; (7) skills to make changes for a better environment. Third, the ecological character. Ecological characters can be (1) awareness and concern for the environment; (2) commitment and responsibility for environmental preservation; (3) appreciation and empathy for the environment; (4) respecting differences of opinion or different views related to environmental issues; (5) willingness to practice environmentally friendly policies.

Ecological citizenship competence as described above is the ecological competence of civilized citizens towards the environment. Pancasila and Citizenship Education (PPKn) as a subject carries the task of forming and fostering good citizens. A good citizen is not only intelligent and has citizenship skills, but also has a civic character. A caring and responsible personal attitude towards the environment is a form of citizenship character. Through Pancasila and Citizenship Education (PPKn) which has an orientation on ecological citizenship, young citizens will be directed to have ecological

responsibility, care, love, protect, and preserve their environment. Therefore, teaching and fostering citizens who are aware of and care about the environment through ecological citizenship in Pancasila and Citizenship Education subject books at the secondary education level are part of the effort to realize the vision, mission and teaching tasks of Pancasila and Citizenship Education in forming good citizens.

Conclusion

Based on the findings and discussion of the study, ecological citizenship had been contained or loaded in the Pancasila and Citizenship Education subject textbook for students at the 2013 curriculum for secondary education level. However, the material's content was still very minimal and limited, and there was no specific discussion or special chapter that contained teaching materials on ecological citizenship. Ecological citizenship in the 2017 and 2018 editions of Pancasila and Citizenship Education subject books is generally presented in pictures and brief descriptions. The development of ecological citizenship as teaching material in Pancasila and Citizenship Education subjects at the secondary education level begins with developing competencies, both core competencies and basic competencies in Pancasila and Citizenship Education subjects. Pancasila and Citizenship Education competence, which consists of civic knowledge, citizenship skills, and citizenship character, is used as the basis of reference for the development of competence in ecological citizenship. Thus, the development of ecological citizenship in Pancasila and Citizenship Education subjects contains: first, civic knowledge about the environment (ecological knowledge), in the form of citizenship and ecology concepts, ecological issues, objectives of ecological citizenship, ecological policies, the impact of environmental damage, conflicts due to the environment and environmental management programs; second, citizenship skills in environmental issues (ecological skills), in the form of critical thinking skills, communication, information and technology, negotiation and compromise, conflict management, environmental care activities, and change-making skills; third, the character of citizenship towards the environment (ecological character), in the form of awareness and concern, commitment and responsibility, appreciation and empathy, respect for differences of opinion and willingness to practice environmentally friendly policies.

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Appendices

Table 1

The Chapters of Student Books' Materials for Secondary Education about Pancasila and Citizenship Education Subjects

Level	Grade	Chapter Title
Junior High School/Equivalent	VII	The formulation and stipulation of Pancasila as the basis of the state (Chapter 1); Norms and justice (Chapter 2); Formulation and ratification of the 1945 Constitution of the Republic of Indonesia (Chapter 3); Diversity of Tribes, Religions, Races, and Intergroups in the Frame of Bhinneka Tunggal Ika (Chapter 4); Cooperation in various areas of life (Chapter 5); Regions within the framework of the Archipelagic State of The Indonesian Republic (Chapter 6).
	VIII	The Position and Functions of Pancasila (Chapter 1); Awareness of the 1945 Constitution of the Republic of Indonesia (Chapter 2); Legislation (Chapter 3); The spirit of the national revival of 1908 (Chapter 4); Youth Pledge within the framework of Bhinneka Tunggal Ika (Chapter 5); National commitment (Chapter 6).
	IX	The dynamics of the embodiment of Pancasila as the basis of the state and the nation's view of life (Chapter 1); Preamble to the 1945 Constitution of the Republic of Indonesia (Chapter 2); Sovereignty of the Republic of Indonesia (Chapter 3); Indonesia's Diversity in the Frame of Bhinneka Tunggal Ika (Chapter 4); Harmony of the diversity of Indonesian society (Chapter 5); State defense in the context of the Archipelagic State of The Indonesian Republic (Chapter 6).
High School/Equivalent	X	Pancasila values within the framework of state governance practices (Chapter 1); Provisions of the 1945 Constitution of the Republic of Indonesia in the life of the nation and state (Chapter 2); The authority of state institutions according to the 1945 Constitution of the Republic of Indonesia (Chapter 3); Structural and functional relationships between central and local governments (Chapter 4); National integration within the framework of Bhinneka Tunggal Ika (Chapter 5); Threats to the state within the framework of Bhinneka Tunggal Ika (Chapter 6); Archipelago Insight in the Archipelagic State of The Indonesian Republic context (Chapter 7).
	XI	Harmonization of human rights and obligations in the perspective of Pancasila (Chapter 1); Pancasila democratic system and dynamics (Chapter 2); The legal and judicial system in Indonesia (Chapter 3); The dynamics of Indonesia's role in world peace (Chapter 4); Threats to the Republic of Indonesia (Chapter 5); Unity of the nation within the Archipelagic State of The Indonesian Republic (Chapter 6).
	XII	Cases of violation of rights and denial of obligations of citizens (Chapter 1); Protection and law enforcement in Indonesia (Chapter 2); The effect of science and technology progress on the Unitary State of the Republic of Indonesia (Chapter 3); The dynamics of unity

Level	Grade	Chapter Title
		and integrity in the context of the Archipelagic State of The Indonesian Republic (Chapter 4).

Source: Research Results Data, 2020

Table 2
Chapters VII-IX Student Book Materials Containing Ecological Citizenship Content

Grade	Chapter	Ecological Citizenship Content	Information
VII	Chapter 5: Cooperation in various areas of life Chapter 6: Regions within the Archipelagic State of The Indonesian Republic	Figure 5.1 Cooperation of the community to clean the environment due to flash flood (p. 115) Figure 5.3 Cooperation in a community in reforestation and bridge building (p. 118) Nationality info table that explains potential national security disturbances, one of which is environmental destruction (p. 162)	Ecological citizenship content is contained in the form and description of images and info tables. However, it is only contained in two chapters of the six chapters of the VII graders' book material.
VIII	Chapter 6: National commitment	A brief description of the form of love for the homeland, including (1) preserving the environment and preventing environmental pollution; (2) managing natural wealth by preserving ecosystems (p. 142)	The content of ecological citizenship is contained in the form of a brief description. However, it is only contained in one chapter of the six chapters of VIII graders' student textbooks.
IX	Chapter 1: The dynamics of the embodiment of Pancasila as the basis of the state and the nation's view of life Chapter 6: Defending the country in the context of the Archipelagic State of The Indonesian Republic	Figure 1.5 The atmosphere of cooperation in a community activities in the community cleaning the environment (p. 20) Brief description of potential threats in the form of natural resources accompanied by picture 6.13 illegal logging (pp. 170-171)	Ecological citizenship content is contained in the form of images and brief descriptions. However, it is only contained in two chapters of the six chapters of IX graders' student textbooks.

Source: Research Results Data, 2020.

Table 3

Chapters X-XII Student Book Materials Containing Ecological Citizenship Content

Grade	Chapter	Ecological Citizenship Content	Information
X	Chapter 2: Provisions of the 1945 Constitution of the Archipelagic State of The Indonesian Republic in the life of the nation and state	Figure 2.5 Mountains and rice fields (p. 41) Figure 2.6 Indonesia's natural wealth (p.45) Figure 2.10 The unity of the Indonesian National Army and the people working to clean up the environment (p. 63)	Ecological citizenship content is contained in the form of images and brief descriptions. However, it is only contained in three chapters of the seven chapters of X graders' student textbooks.
	Chapter 6: Threats to the State in the Frame of Unity in Diversity	Brief description of community participation in overcoming various threats, including (1) preserving the environment and preventing environmental pollution; (2) processing and utilizing natural resources (p. 192)	
	Chapter 7: Archipelago Insights in the context of the Archipelagic State of The Indonesian Republic	A brief description of the state and natural wealth of Indonesia, as well as a table containing news on environmental damage and exploitation of Nipah Island, Riau Islands (p. 210)	
XI	Chapter 1: Harmonization of Human Rights and Human Rights in the perspective of Pancasila	Figure 1.2 and 1.3 Community service cleaning the environment (pages 5 & 9) A brief description of the impact of technological advances that cause environmental pollution, accompanied by a picture 1.6 Environmental pollution due to factory waste (p. 18)	Ecological citizenship content is contained in the form of images and brief descriptions. However, it is only contained in three chapters of the six chapters of XI graders' student textbooks.
	Chapter 5: Threats to the position of the Archipelagic State of The Indonesian Republic	Figure 5.5. The realization of the unity of the Indonesian National Army and the people of community service (p. 164)	
	Chapter 6: Unity of the Nation in the Archipelagic State of The Indonesian Republic	Figure 6.5 The natural beauty of Indonesia (p. 189)	
XII	Chapter 1: Cases of violation of rights and	A brief description of the impact of technological advances and one example of a case of denying the	The content of ecological citizenship is contained in the form of a brief description. But

Grade	Chapter	Ecological Citizenship Content	Information
	denial of obligations of citizens	obligations of citizens, which is littering (pages 18 & 22).	it is contained in only one chapter of the four chapters.

Source: Research Results Data, 2020.

Table 4

Development of Ecological Citizenship in Pancasila and Citizenship Education Subjects at the Secondary Education Level

No	Ecological Citizenship Competence	Teaching Material
1	Ecological Knowledge	<ul style="list-style-type: none"> a) Knowledge of citizenship (citizens' rights and obligations), ecological concepts, and ecological citizenship; b) Approach environmental issues from multiple perspectives, and case examples; c) The role and actions of government in realizing the goals, values, and principles of ecological citizenship; d) Relations between countries in relation to the environment; e) Policies related to the environment at the regional (local), national, and global levels; f) Participation in maintaining, managing and preserving the environment; g) The impact and influence of human actions on the environment; h) Conflicts arising from environmental problems; i) Sustainable development programs related to environmental management (short, medium and long term)
2	Ecology Skills	<ul style="list-style-type: none"> a) Critical thinking skills in identifying, describing, explaining, analyzing, evaluating, and taking part in environmental issues; b) Communication skills and influencing policies related to the environment; c) Negotiation and compromise skills in making deals related to the environment; d) Conflict management or problem solving skills related to the environment; e) Skills to create and implement environmental activities/actions; f) Information technology skills related to the environment; g) Skills for making changes for a better environment.
3	Ecological Characters	<ul style="list-style-type: none"> a) Awareness and concern for the environment; b) Commitment and responsibility for environmental preservation; c) Appreciation and empathy for the environment; d) Respect differences of opinion or different views related to environmental issues; e) Willingness to practice environmentally friendly policies.

Source: Edited by the author, 2020.