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RESEARCH ARTICLE

Reflection of Water Literacy in the Environmental Education and Climate Change Course Teaching Program

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ABSTRACT

In this research, in the Environmental Education and Climate Change Course (6th, 7th or 8th grades) Curriculum; What specific goals, skills, achievements, topics/concepts related to water literacy are included and their place in the program are investigated. Document review, one of the qualitative research methods, was used in the research. The research was based on the Environmental Education and Climate Change Curriculum revised in 2022. The document examined in the context of the research was analyzed with descriptive analysis. As a result of the research, water literacy is indirectly included in the special purpose dimension of the Environmental Education and Climate Change Course Curriculum; directly in the skill dimension; It has been determined that it is included directly and indirectly in the dimension of achievement and subject/concepts. It is seen that the achievements and topics/concepts that may be important for the reflection of water literacy in the curriculum are included in the "Environmental Problems" and "Sustainable Development and Environmentally Friendly Technologies" units. Within the scope of the results obtained, it can be said that the 2022 Environmental Education and Climate Change Course Curriculum includes content aimed at raising awareness and awareness about water literacy. The inclusion of water literacy in different teaching programs can be determined.

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1. Introduction

Water is important for all living beings on the planet. Because water is a basic need for living things to survive. However, the amount of water that is important for living things is not evenly distributed on the earth, both spatially and seasonally. This situation drives people to manage and control water correctly. As a matter of fact, ancient civilizations established on the edges of water resources tried to manage and use water effectively with aqueducts and well-like structures. Nowadays, countries are building advanced water management systems. It is clear that activities have been carried out to protect the existence of water and manage it correctly from past to present (Otaki et al., 2015).

Moreover, the studies are not limited to national activities. International organizations and non-governmental organizations support relevant activities. In this regard, the United Nations General Assembly declared March 22 as "World Water Day" and included the statement "Ensuring the availability and sustainable management of water and sanitation for all" among the 2030 Sustainable Development Goals (United Nations, 2015). Although studies are carried out at national and international levels to manage water and its resources, water shortages are increasing compared to the past. For example, the number of countries that cannot access the water they need to meet basic human and environmental needs is increasing, especially countries in Sub-Saharan Africa, Asia

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and Oceania (Maniam et al., 2021). There are undoubtedly important reasons for this situation. Increasing world population, developing industrial activities and global warming can be counted among these reasons. Water literacy emerges as an important paradigm in the face of related reasons that increasingly increase the pressure on water.

Water literacy is a term that we encounter in recent studies. The relevant term has a precise and standard definition. This term first found its place in the context of environmental literacy. However, the increasing number of water-related problems and their globalization in the 21st century have led to water literacy being considered a separate field of study (Saraswaty et al., 2022). Water literacy can be defined as being able to understand the importance and necessity of water resources for living things, as well as basic information about the sustainable use of water (Wood, 2014). Otaki et al. (2015) also defined water literacy as the individual's ability to know how much water she spends daily, for what purpose she uses water, and how water is purified and distributed. When different definitions of water literacy are examined, it is seen that, beyond having knowledge about water and water resources, emphasis is also placed on the individual's attitude and behavior. As a matter of fact, McCarroll and Hamann (2020) define water literacy as "the culmination of water-related knowledge, attitudes and behaviors." It is seen that there are different studies and researchers that consider water literacy as a component of knowledge, attitudes and behaviors about water (Amahmid et al., 2019; Martínez-Borreguero et al., 2020). Essentially, it would be appropriate to evaluate water literacy with cognitive, affective and behavioral dimensions. Water literacy requires not only having sufficient knowledge about water and water resources, but also caring about water resources and respecting water, and shaping our behavior accordingly.

Water literacy, for which there is no consensus on the definition, is classified by experts. In this regard, water literacy is divided into three: practical, living and social water literacy. While practical water literacy is having the necessary knowledge to ensure that water is in vital quantity and quality, living water literacy is the ability to use water wisely, especially in one's own home and in social areas. Finally, social water literacy is the ability to act responsibly and make appropriate decisions on behalf of society when using water (Otaki et al., 2015). When the types of water literacy are examined, it is seen that they represent an awareness that starts from the individual and spreads to the whole society. All three of these types are important because they contain knowledge and skills regarding water problems in both national and global contexts. It is important for individuals and societies to have knowledge and awareness about water literacy today, when water problems are increasing. In this context, water literacy education is said to be important.

Water literacy education is provided to individuals at preschool, primary school, secondary school, secondary education and higher education levels. In order to raise water-sensitive and participatory citizens, the water knowledge and experience that the child gains from his/her family can be enriched in preschool, which is considered the first level of education. Today, efforts are being made to provide knowledge, skills and awareness about water literacy through various courses at primary, secondary and secondary education levels. These courses include life sciences at primary school level; environmental education and climate change, social studies and science at the secondary school level; At the secondary education level, it is biology and geography (Sözcü & Türker, 2020). It can be said that among these courses, environmental education and climate change courses, especially given at the 6th, 7th or 8th grade levels of secondary school, have an important place. Environmental education and climate change course started to be offered as an elective course in 6th, 7th or 8th grades in the 2022-2023 academic year.

In the curriculum of the relevant course, it is emphasized that the aim is for students to be individuals who are sensitive to the events taking place both in nature and in their immediate surroundings, who have sustainable development awareness, who can look at environmental problems from a national and global perspective, and who have adopted the principle of environmental ethics (Millî Eğitim Bakanlığı [MEB], 2022). Considering that water literacy education first found its place in environmental education and that it was not included in different education levels as an independent course, the importance of the environmental education and climate change course can be understood. The aim of the relevant course to raise individuals who are environmentally sensitive and conscious of sustainable development is undoubtedly impossible without individuals with water literacy skills. In this regard, it is thought that the course and the curriculum are effective in raising individuals who have knowledge and awareness about water literacy. The current study aims to examine the inclusion of water literacy in various dimensions of the Environmental Education and Climate Change Curriculum. In line with this basic purpose, answers were sought to the following questions.

1) What specific purposes is water literacy associated with in the Environmental Education and Climate Change Course Curriculum?

2) What skills are water literacy associated with in the Environmental Education and Climate Change Course Curriculum?

3) What achievements and topics/concepts are water literacy associated with in the Environmental Education and Climate Change Course Curriculum?

2. Method

This research was designed using document analysis, which is one of the qualitative research methods. Document review is the analysis of written materials containing information about the phenomenon or facts that are targeted to be investigated. In addition, document review is an additional source of written information that both constitutes all the data in research and is complementary to the data collection method (Mertkan, 2015; Merriam, 1998; Yıldırım & Şimşek, 2016). In this research, document analysis was preferred because the Environmental Education and Climate Change Course Curriculum has a document feature and the aim is to examine the curriculum from the perspective of water literacy.

2.1. Data Source of the Research

The research started by accessing the curriculum intended to be examined. Secondary School Environmental Education Course Curriculum has been removed from practice as of the 2022-2023 academic year, and with the decision taken by the General Directorate of Basic Education on 14.02.2022, the Environmental Education and Climate Change Course (6th, 7th or 8th Grades) Curriculum has been put into practice. In the research, the Environmental Education and Climate Change Course (6th, 7th or 8th Grades) Curriculum approved by the Ministry of National Education was used as the data source. This document used in the research was accessed from the platform of the Republic of Turkey Ministry of National Education, Board of Education and Discipline.

2.2. Analysis of Data

The document examined in the context of the research was analyzed with descriptive analysis. Descriptive analysis is the systematic and clear summarization and interpretation of the documents planned to be evaluated in the research in line with the themes determined before data analysis (Yıldırım & Şimşek, 2016). Within the framework of descriptive analysis, the analysis of the data obtained from the curriculum intended to be examined in the research was determined within the framework of specific purpose, skill, achievement, subject/concept themes in line with the research questions. Environmental Education and Climate Change Course (6th, 7th or 8th Grades) Curriculum was evaluated in the context of the determined dimensions. Within the scope of the research purpose, the relevant curriculum was analyzed by two different researchers at different times and places. While presenting the findings of the research, the results were supported by quoting from the curriculum.

2.3. Validity and Reliability of the Research

Some issues were taken into consideration to ensure the validity and reliability of the research. First of all, the curriculum was analyzed by two different researchers at different times and places and the results obtained by the researchers were compared. The findings were interpreted by providing explanations to the reader. The results obtained were supported by including quotes from the curriculum. Finally, the research process was reported in detail (Merriam, 1998; Yıldırım & Şimşek, 2016; Creswell, 2021).

3. Findings and Interpretation

The findings obtained within the scope of the research were obtained by evaluating the reflection of water literacy on the Environmental Education and Climate Change Course (6th, 7th or 8th Grades) Curriculum.

3.1. The Relationship of Water Literacy with Specific Purposes in the Environmental Education and Climate Change Course Curriculum

There are a total of 14 specific objectives in the Environmental Education and Climate Change Course Curriculum. There are 10 specific objectives directly/indirectly related to water literacy. These specific purposes are:

- To develop interest and curiosity about the events occurring in nature and the immediate environment, and to develop a positive attitude.
- Understanding that every person around them leaves a positive or negative mark.
- Establishing a relationship between the use of natural resources and production and consumption activities.
- Believing in the necessity of leaving a livable environment to future generations by gaining awareness of sustainable development.
- Understanding the importance of efficient use of resources and sustainability in solving environmental problems and climate change from a local, national and global perspective.
- To have knowledge about environmental problems and the effects of global climate change on the environment, society and economy.
- Taking responsibility for preventing and reducing the problems caused by climate change.
- To have knowledge about the effects of climate change in Turkey.
- Gaining awareness about national/international agreements regarding climate change and the environment, as well as institutions and organizations working on this issue.
- Developing scientific reasoning and decision-making skills by using dilemmas on environmental issues.

Within the framework of these special objectives listed above, attention can be drawn to issues such as educating students who care about water saving, conscious water use in the context of sustainability, and water problem/shortage/crisis among environmental problems. The ultimate goal of these special objectives of the course is the emergence of a water literate society.

3.2. The Relationship between Water Literacy and Skills in the Environmental Education and Climate Change Course Curriculum

The Environmental Education and Climate Change Course Curriculum aims to develop 10 scientific process skills and 15 life skills. These skills include skills directly/indirectly related to water literacy.

Scientific Process Skills: Observing, classifying, recording data, hypothesizing, using data

Life Skills: Problem solving, decision making, creative thinking, environmental awareness, global awareness, healthy living, active participation and empathy

It can be said that water literacy plays an active role in scientific process and life skills such as being able to distinguish unhealthy water, understanding the importance of water in daily life, saving water, using the necessary and sufficient amount of water and recycling water, and finding solutions to water problems.

3.3. The Relationship of Water Literacy with Achievements and Topics/Concepts in the Environmental Education and Climate Change Course Curriculum

Distribution of Water Literacy-Related Achievements and Topics/Concepts by Units in the Environmental Education and Climate Change Course Curriculum is presented in Table 1.

Table 1. Distribution of water literacy achievements and topics/concepts by units in the environmental education and climate change course curriculum.

Units	Total number of achievements by unit level	Numbers and rates of achievements related to water literacy		Total number of topics/ concepts by unit level	Numbers and rates of topics/ concepts related to water literacy	
	f	*f*	%	*f*	*f*	%
1. Human and Nature	6	2	8.34	4	-	-
2. Cyclic Nature	4	4	16.66	3	-	-
3. Environmental Problems	6	6	25	8	7	43.75
4. Global Climate Change	5	4	16.66	6	4	25
5. Climate Change and Türkiye	5	2	8.34	4	1	6.25
6. Sustainable Development and Environmentally Friendly Technologies	8	6	25	6	4	25
Total	**34**	**24**	**100**	**31**	**16**	**100**

When Table 1 is examined, it is seen that there are a total of 6 units in the Environmental Education and Climate Change Course Curriculum. 4 outcomes in the "Cyclic Nature" unit; 5 achievements each in the "Global Climate Change" and "Climate Change and Turkey" units; 6 achievements each in the units "Human and Nature" and "Environmental Problems"; There are 8 learning outcomes in the "Sustainable Development and Environmentally Friendly Technologies" unit. It has been determined that the achievements and topics/concepts in the units are directly/indirectly related to water literacy. While the achievements and topics/concepts related to water literacy are included directly in the "Sustainable Development and Environmentally Friendly Technologies" unit at most (f:6), they are indirectly included at least (f:2) in the "Human and Nature" and "Climate Change and Turkey" units. is given as. When the curriculum is examined in general, 24 out of 34 learning outcomes are; It was determined that 16 out of a total of 31 topics/concepts were directly/indirectly related to water literacy. Below, the achievements and topics/concepts related to water literacy are interpreted by giving examples on the basis of units of the Environmental Education and Climate Course (EECC).

In the "Human and Nature" unit, it is aimed for students to develop a positive attitude towards the preservation of natural balance by realizing the interaction between humans and nature, the roles of living and non-living beings in this interaction, and that nature has a delicate balance, based on the observations they make in their environment (MEB, 2022). In this unit "*EECC.1.2. It discusses the positive and negative aspects of the interaction between humans and nature."* in the acquisition of water literacy, water literacy is indirectly addressed by addressing the interaction between humans and nature, touching on the positive and negative effects of activities on nature, and focusing on local and global examples

of the positive and negative effects of nature on humans. *"EECC.1.6. It discusses behaviors that will negatively affect the natural balance through current examples."* in the acquisition, water literacy is indirectly addressed by addressing the behaviors that will negatively affect the natural balance in terms of environmental ethics through dilemmas, and by making people realize their responsibilities in developing attitudes and behaviors to protect the natural balance. A connection could not be established between the relevant topics/concepts of the unit (nature, natural balance, living and non-living entities) and water literacy.

In the "Cyclic Nature" unit, it is aimed for students to classify natural resources, realize the flow of matter and energy in nature through matter and energy cycles, and make sense of the effect of this flow on natural life and living things (MEB, 2022). In this unit "*EECC.2.1.S/He gives examples of the natural resources in his immediate surroundings by using observation results."* in the acquisition, the achievement of students sharing their observation results about the natural resources where they live; *"EECC.2.2. It groups the natural resources on earth based on the results of its research."* in the acquisition process, students should give examples, especially in the natural source of water; *"EECC.2.3. S/He realizes that natural resources are sustained by the matter cycle and energy flow."* in the acquisition, realize that the natural source of water is sustainable through the cycle of matter under natural conditions, and make them aware of matter cycles, especially by giving the example of the water cycle; Finally, *"EECC.2.4. It makes inferences about the effects of disruption in the matter cycle and energy flow on natural life."* in the acquisition, it can be said that researching the negative interactions that may occur in the water cycle and discussing them with their social, economic and environmental dimensions is related to water literacy. A connection has been established between the relevant topics/concepts of the unit, natural resources, material cycles, energy flow and water literacy.

In the "Environmental Problems" unit, it is aimed for students to realize the importance of the production-consumption balance, calculate the ecological footprints resulting from human activities, understand the negative consequences that the consumer society will cause, and explain the impact of environmental problems on human life (MEB, 2022). It has been determined that all achievements of the unit are indirectly related to water literacy. *"EECC.3.1. Recognizes the importance of balance between production and consumption in daily life."* In its acquisition, water used in the production stages of products used in daily life and wastes resulting from production are emphasized. *"EECC.3.2. Distinguishes the concepts of waste, garbage and pollution."* in the acquisition, especially water waste is mentioned in water saving. *"EECC.3.3. S/He realizes that waste and garbage cause air, water, soil pollution and radioactive pollution*." attention is drawn to water pollution in the acquisition process. "EECC.3.4. *Explains the concept of ecological footprint with examples."* in this course, the student is enabled to calculate his or her ecological footprint based on water consumption habits. *"EECC.3.5. "It explains local and global environmental problems with examples."* in the acquisition, water pollution can be addressed in the recovery process. Finally, "*EECC.3.6. It explains the problems that arise due to environmental pollution and the effects of these problems on human life."* in the acquisition, it can be said that students' ability to conduct national/international research on a current environmental problem such as water pollution and liquid waste is related to water literacy. It can be said that among the relevant topics/concepts of the unit, environment, balance between production and consumption, life cycle analysis, waste, waste, pollution and ecological footprint are related to water literacy.

In the "Global Climate Change" unit, it is aimed for students to be aware of the environmental problems that cause global climate change, the process of emergence of these problems, the natural disasters that increase with global climate change and the effects of these disasters on living things, and to put forward solutions to the problem of global climate change (MEB, 2022). In this unit "*EECC.4.2. S/He realizes that global warming occurs as a result of the greenhouse effect."* in its recovery, the focus is on acid rain and ozone layer depletion. *"EECC.4.3. Explains the relationship between global climate change and global warming*." in this course, the concepts of global climate change, global warming and climate crisis are touched upon. *"EECC.4.4. It interprets the effects of global climate change through case studies."* in the acquisition, problems such as the melting of glaciers and the rise in sea level, the change of the coastal ecosystem, the drying up of lakes, the change in the chemical structure of aquatic environments, and the decrease in clean water resources are made evident to the student through case studies. *"EECC.4.5. It explains the disasters caused directly or indirectly by global climate change, together with their effects."* in the acquisition, disasters such as flood, overflow, landslide, mucilage, drought, coastal erosion, desertification, hurricane and tornado are discussed. It can be said that disasters, acid rain, global climate change and global warming are related to water literacy among the relevant topics/concepts of the unit.

In the "Climate Change and Turkey" unit, it is aimed for students to gain knowledge about the effects of climate change in Turkey, to realize the importance of national and international studies in combating climate change, to take responsibility for reducing the effects of climate change and to produce projects on the subject (MEB, 2022). Among the achievements in this unit, "*EECC.5.1. "Recognizes the current and possible effects of climate change in Turkey."* in the acquisition, while realizing that Turkey is affected by climate change due to its geographical location, the effects of climate change, especially on biodiversity, in Turkey are also discussed. "*EECC.5.3. It gives examples of measures to reduce*

the effects of climate change in Turkey." Issues that affect carbon emissions, such as changing unconscious water consumption habits, use of water energy, and recycling, are addressed. It can be said that social awareness, one of the relevant topics/concepts of the unit, is related to water literacy.

In the "Sustainable Development and Environmentally Friendly Technologies" unit, it is aimed for students to gain knowledge about the effects of climate change in Turkey, to realize the importance of national and international studies in combating climate change, to take responsibility for reducing the effects of climate change and to produce projects on the subject (MEB, 2022). This unit includes direct gains related to water literacy. *"EECC.6.1. S/He realizes that while meeting his wishes and needs in his daily life, he must also act by taking into account the needs of future generations."* in the acquisition, they are expected to realize sustainable lifestyles, being self-sufficient in their achievements, being able to separate their wants and needs, recycling their waste without harming the environment, preferring to use clean energy. Students should be made aware of using water as much as they need. *"EECC.6.2. Recognizes the importance of sustainable use of water resources."* in the acquisition, water literacy by stating the importance of water for living things; water saving, water management, keeping water resources clean, agricultural irrigation, etc. are considered in their dimensions. *"EECC.6.3. It discusses the impact of sustainable use of resources on development based on research data."* in the acquisition, attention is paid to the concepts of environmental literacy, water literacy, agricultural literacy, food literacy and financial literacy. Another achievement, "EECC.6.4. Explains the importance of recycling and recovery in terms of sustainable development." in the acquisition, projects related to zero waste project, liquid waste evaluation and water recycling are mentioned. *"EECC.6.6. It provides examples that support sustainable development in Türkiye and the world*." in the learning outcome, the concept of sustainable school and the practices that have left their mark in history to protect the environment from past to present are touched upon. Finally, *"EECC.6.7. It designs a project that includes a solution to a real-life problem based on sustainable development awareness*." in the acquisition, attention can be drawn to water literacy by touching on concepts such as sustainable energy, production, consumption, and management of natural resources. In addition to directly including water literacy in the relevant topics/concepts of the unit, it can be said that sustainable development, conscious consumption and savings are indirectly related to water literacy.

4. Conclusion, Discussion and Recommendations

Global warming, developing industrial activities and people's irresponsible behavior towards water and water resources have brought water problems. Today, millions of people have difficulties accessing clean drinking water and agricultural lands cannot be irrigated. At the same time, in big cities, water is not supplied to both houses and factories during certain months of the year. While this situation was limited to certain continents and countries in the past, today water problems have gained a global character. This situation negatively affects different sectors such as health, education and transportation, especially the economy. Solving water problems requires collective awareness. Because the solution to water problems can be solved with a broad understanding and participation of the masses. In this context, all individuals in the country, as water users, should be conscious and sensitive to water problems. Water literacy skills are also important in that they raise awareness of water and water resources in individuals. Raising water literate individuals is possible through education. However, today water literacy is not included as an independent course. Content related to water literacy is tried to be conveyed to students through different courses. One of these courses is the environmental education and climate change course given at the 6th, 7th and 8th grade levels of secondary school. In the relevant study, the inclusion of water literacy content in different dimensions of the Environmental Education and Climate Change Curriculum was examined.

The results obtained from the research indicate that content for direct/indirect water literacy is included among the specific objectives of the Environmental Education and Climate Change Curriculum. When the relevant specific objectives are examined, it can be seen that emphasis is placed on raising awareness about the environment and environmental problems, creating awareness of sustainable development, and developing the reasoning ability of individuals regarding the causes and consequences of climate change. The term water literacy was first used in environmental education studies in the 1960s (Roth, 1992). When the relevant studies are examined, it is seen that water literacy is considered as an environmental problem and is not an independent field of study. In this context, the aims of gaining knowledge about the environment and environmental problems, which are included in the specific objectives of the program, and taking actions to solve these problems should not be evaluated separately from water literacy. In addition, the contents for sustainable development included in the specific objectives of the curriculum are related to water literacy. Water literacy is a mandatory skill to ensure sustainable development that supports progress and order in different areas: economic, social and environmental. This obligation is also accepted by international institutions and organizations. The United Nations Sustainable Development Goals report reveals that 2.3 billion people experienced water shortage in 2018. The same report includes solving water-related problems to ensure sustainable development around the world and the importance of water literacy in solving these problems (United Nations, 2021). Finally, it cannot be said that the articles on climate change and awareness of the

consequences of this change, which are included in the specific objectives of the relevant program, are independent articles on water literacy. Undoubtedly, climate change due to global warming affects the quantity and quality of water. This situation requires an improvement and regulation in individuals' knowledge, attitudes and behaviors towards water. This is possible with water literacy. When the inclusion of water literacy in the specific objectives of the Environmental Education and Climate Change Course Curriculum is generally evaluated, it is said that water literacy is indirectly included and water literacy is handled with an interdisciplinary approach in the context of environmental problems. Thus, it can be seen that the aims are to raise awareness of water literacy among students, to produce solutions to water problems in the light of scientific knowledge, and to raise concerns about water.

Another result obtained in the research is that direct and indirect skills for water literacy are included among the scientific process and life skills included in the Environmental Education and Climate Change Curriculum. In the relevant program, it is seen that the scientific processes and life skills thought to be related to water literacy support three types of water literacy: practical, living and social water literacy. Practical water literacy is aimed at the individual's ability to access the drinking water he needs to survive, to distinguish between clean and dirty water, and to understand the importance of water. Living water literacy can be defined as the ability to use water. Finally, social water literacy is related to the issues of considering social benefit and feeling responsible in the use of water (Işıtan, 2023). In this regard, it is said that the ability to find solutions to water problems is related to social water literacy. Scientific process and life skills included in the environmental education and climate change curriculum include observing, classifying, recording data, making hypotheses, using data, problem solving, decision making, creative thinking, environmental awareness, global awareness, healthy living, active participation and it can be said that empathy is important for the functionality of the three types of water literacy. In this respect, the mentioned skills in the curriculum can improve water literacy.

Finally, the achievements and topics/concepts related to water literacy in the environmental education and climate change curriculum were examined. The results show that the number of achievements and topics/concepts for water literacy in the 6 units in the program do not show a balanced distribution. The most gains in water literacy are in the "Sustainable Development and Environmentally Friendly Technologies" unit; It was determined that the least gains were in the "Human and Nature" and "Climate Change and Turkey" units. When the distribution of topics/concepts related to water literacy is examined, the most topics/concepts related to water literacy are in the "Environmental Problems" unit; It was determined that the least number of topics/concepts were included in the "Human and Nature" and "Circular Nature" units. When the gains are examined, it is seen that the gains are mostly indirectly related to water literacy. It has also been determined that the gains include cognitive, affective and behavioral areas. As a matter of fact, achievements should be directed towards students' knowledge, attitudes and behaviors. In the study conducted by Dean et al. (2016), it was emphasized that achievements including cognitive, affective and behavioral areas are important in raising water-sensitive and participatory citizens.

In conclusion; It has been determined that the Environmental Education and Climate Change Curriculum includes water literacy mostly indirectly in the specific purpose, skill and achievement and subject/concept dimensions. In line with this determination, when the revision of the relevant curriculum comes to the agenda, direct content related to water literacy can be given more space in all dimensions. The inclusion of water literacy in different curricula can be determined.

Conflict of Interest

The authors declare that they have no conflict of interest.

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