ENVIRONMENTAL EDUCATION IN PRIMARY SCHOOL: MEANING, THEMES AND VISION

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Abstract

Environmental problems are faced all over the world. The quality of the environment has a tendency to deteriorate, so environmental education becomes one of the essential conditions for continued existence. In order to improve the situation, it is necessary to raise public awareness and encourage behaviour change. It is obvious that environmental education is needed, which would raise people's level of awareness, and encourage them to change their behaviour, accordingly, changes would take place in the field of production and industry, consumption habits, and the relationship with the environment itself. Environmental education is especially important in primary school. In forming children's environmental awareness, a great responsibility falls on the primary school teacher, therefore his preparation in the field of environmental education must be adequate.

Empirical qualitative research aimed to reveal how future primary school teachers understand the meaning of environmental education, the topic, and what kind of realisation vision they have. 136 students from two Lithuanian universities, future teachers of preschool and primary education participated in the study. Verbal research data were analysed using the quantitative content analysis method.

The research results allow us to state that environmental education is treated as significant, the themes of environmental education cover various areas that can and should be studied in primary school. Future teachers' environmental education implementation vision at school includes both cognitive and practical-behavioural components.

Keywords: *environmental education, qualitative research, primary school, pre-service teachers*

Introduction

In recent years, more and more attention has been paid to environmental education both in European Union and in Lithuania. The position of each of us in the field of environmental education is particularly important. The earlier children are introduced to environmental issues, the stronger they engage in such activities themselves, involve friends, relatives (Collado et al. 2020; Treagust et al., 2016). Attention to environmental protection at school helps to develop conscious citizens. At school, children not only acquire knowledge about environmental protection but also learn various other things important for environmental protection, e.g., to behave responsibly with nature and in nature. No less important is sensitivity to environmental protection and its recognition

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as a very important element in life, conscious understanding of environmental problems and arguments, and behaviour in trying to avoid or solve them (McBride, et al. 2013). Children become more interested in what harms the environment and how to preserve it (Yeşilyurt, 2020; Treagust, 2016). A stronger connection with nature is formed, and they start to care more about environmental issues. When speaking about formal education, the role of the teacher is very important. Some research shows that primary school teachers' science literacy is not sufficient (Lamanauskas, 2022a, 2022b). On the other hand, research studies show that environmental education in primary school is extremely important (Barraza, 2001; Plourde, 2002; Shafer, 1996), gradually forming pro-environmental behaviour, which is less harmful to the environment, and favourably affects it (Steg & Vlek, 2009). As environmental requirements grow, there is an increasing need to act sustainably, responsibly, and respectfully, to protect and restore the environment (Buchanan et al., 2019).

It is obvious that it is necessary to strengthen environmental education in primary school as one of the most important components of natural science education (Lamanauskas, 2009). The results of a study conducted in Indonesia showed that most teachers agreed that it was important to integrate environmental education into the learning process of students, especially primary school students. However, this integration still has limitations, e.g., lack of time (Sukma et al., 2020). On the other hand, despite the fact that the relevance of environmental education has been recognised, there are still very few changes in school practices (Stanišić & Maksić, 2014).

The implementation and effectiveness of environmental education depends mainly on the competence of teachers. Spanish researchers analysed the situation of environmental education, teacher competencies and teacher training. The analysis revealed the lack of environmental competencies of future primary school teachers, as well as obvious gaps in teacher training programmes in terms of environmental education (Álvarez-García et al., 2015). A similar situation has been recorded in previous studies, stating that the training of future teachers in the field of environmental education is insufficient (Tilbury, 1992). Various approaches are used for the improvement of environmental literacy. Saribas et al. (2017) analysed the impact of special environmental courses on improving the environmental literacy of university students. The results showed that the participants' attitude towards the environment, awareness of the use of the environment and beliefs about their effectiveness increased significantly, although, at the end of the course, their environmental knowledge and concern for the environment did not change significantly. Turkoglu study (2019) showed that pre-service teachers had more theoretical knowledge than in-service teachers and in-service teachers had more practical knowledge than pre-service teachers. Thus, an important question remains, how to integrate environmental education into the daily learning of students. Researchers claim that there is a need for more specific content of environmental education in teacher training study programmes (Kennelly et al., 2008).

The importance of natural science knowledge in environmental education is emphasized by Kuckienė and Makarskaitė-Petkevičienė (2006), Yeşilyurt et al. (2020). Recent Turkish researchers presented an action study, confirming that environmental knowledge provision improves primary school students' environmental awareness. Fokides and Kefalinou (2020) revealed measures, i.e., the impact of spherical videos on primary school students' environmental education, teaching them about endangered species.

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Treagust et al. (2016) study in primary classes showed that girls were more attentive to environmental issues than boys. One-year younger students were less empathetic towards the environment, and they needed reminders that the environment is fragile. In addition, more gifted students are more interested in environmental issues and other issues related to the environment than their less gifted peers.

There is also an interest in school content, and how many and what environmental elements are presented in educational programmes and measures (Kuckiene & Makarskaitė-Petkevičienė, 2006). Collado et al. (2020) examined the benefits of an environmental education programme included in the school curriculum for children's attitudes towards the environment and their behaviour. It has been established that encouraging learning in nature and having as much contact with nature as possible during learning, leads to better environmental achievements.

In 2022 General education programmes have been updated in Lithuania. The development of values, including environmental ones, becomes an important part of education. In the general programme of preschool education (In Lithuania, it is the education of 5-6-year-old children) six areas of education are distinguished, one of them is natural science education, the focus of which is on the child's research, experiments, experiential learning and through this, knowledge about the environment, nature is acquired. While playing and exploring the environment, the child learns what natural recourses are, conserves them (turns off the tap, turns off the light, saves paper, etc.), sorts the waste of used materials. Children are encouraged to reason about responsible and safe behaviour in nature, to notice examples of positive and negative human behaviour in nature.

In the general programme of natural sciences (grades 1-8) students are encouraged to recognize natural science problems and solve them, guided by the principles of sustainable development, healthy lifestyle, responsibly applying the acquired knowledge and skills in various life situations. The emphasis on natural science literacy is evident in the programme, as this would help the student in making personal decisions, the validity of solutions to local and global natural science problems; to understand the changes in nature caused by human activity and to take personal responsibility for preserving the environment, protecting one's own and other people's health. However, when describing achievements, it is more viewed from the perspective of a person but not from the position of nature, emphasizing the benefits provided to a person by nature. For example, *it explains the importance of preservation and care of natural resources for people's quality of life, the usefulness of recycling secondary raw materials. It gives examples of how it contributes and could contribute to the preservation of the environment, and conservation of resources*. And this is confusing because knowledge does not mean understanding and living according to environmental principles.

Thus, the pursuit of one of the most important educational priorities of the 21st century – educational renewal – encourages analysing and evaluating the possibilities of environmental education in primary school, on the other hand, the integration of environmental issues into the content of university study programmes. The aim of the study was to analyse the position of students, future teachers of preschool and primary education, in terms of the significance, problems and vision of practical implementation of environmental education. Three research questions were formulated:

- How do future teachers understand the importance of environmental education?
- What environmental issues (environmental content) should be analysed in primary school?
- What is the future teachers' vision for the implementation of environmental education at school?

Research Methodology

General Characteristics

The research is qualitative, and pilot in nature. It is specifically recognized as "basic or generic qualitative research" (Merriam, 1998). Basic or generic qualitative studies have the essential characteristics of qualitative research (e.g., eliciting meaning, researcher as data collection and analysis instrument, and detailed description). Qualitative research was chosen because it is a descriptive and inductive method that aims to extract the meaning from the research participants' attitudes and forms conditions to collect and present the data in detail from a holistic point of view (Yıldırım & Simsek, 2011). The research was conducted in January - March 2023. The research is based on the premise that studies of students' opinions and evaluations are important because they allow identifying current problems, clarifying already known ones, and predicting opportunities for improving studies.

Sample

136 university students, future teachers of preschool and primary education participated in the study. The research sample consists of two universities – Vilnius (N = 121) and Klaipėda (N = 15), studying Childhood pedagogy (N = 110) and Preschool education pedagogy (N = 26). All the respondents were female. The distribution of students by year of study is given in Table 1.

Table 1
The distribution of students by year of study [n (%)]

Course	*n*	%
The first	43	31.6
The second	72	52.9
The third	12	8.8
The fourth	9	6.6
Total	136	100.0

Qualitative sample size may best be determined by the time allotted, resources available, and study objectives (Patton, 1990). Thus, it is fairly assumed that such a sample is fairly representative in a qualitative study and allows for appropriate conclusions to be drawn.

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A student survey was carried out in auditoriums, by submitting the prepared questionnaires. All students were informed about the objectives of the study, and their participation was voluntary and anonymous. Verbal consent was obtained from the students to participate in the survey.

Instrument

Open-ended questions were used in the study. The subjects were asked three questions:

- What is the significance/importance of environmental education?
- What environmental issues do you think should be addressed in primary school?
- What is your vision for the implementation of environmental education at school?

The wording of the research questions was discussed with two researchers.

The questions include students' general understanding of the meaning of environmental education, the content of environmental education, and the vision of the implementation of such education in primary school.

Data Analysis

The obtained qualitative (verbal) data of the study were analysed using quantitative content analysis. This allows us objectively and systematically analyse textual/verbal data and draw appropriate conclusions. Content analysis as a method is a scientifically based and effective solution that allows drawing reasonable conclusions from various sources of textual information (Coners & Matthies, 2014). Through multi-reading and analysis, relevant meaningful units are distinguished in the information array, which are then combined into subcategories and categories. The frequency of their use is calculated. Data analysis was performed by two researchers independently. The data and categories have been reviewed several times. In the final step, the researchers sought consensus on the assignment of subcategories to categories. The coordination and adjustment took place in two stages. There was a one-week break between the first and the second coordination stages. The concordance rate was higher than 85 %. Miles and Huberman (1994) stated that it was enough for the reliability of data to find a correspondence percentage higher than .70. The significance and completeness of the findings were continuously checked by the researchers.

Research Results

The students' opinion about the importance of environmental education in primary school was analysed. After the content analysis of the submitted answers, two categories were extracted: *Environmental knowledge and understanding* and *Environmental consciousness development* (Table 2).

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Table 2

Environmental Education Meaning / Importance [n (%)]

Categories	Subcategories	Statements	*n* (%)
Environmental knowledge and understanding 47 (52.5)	Environmental knowledge acquisition 24 (26.7)	It is important to educate people about environmental protection	7 (7.8)
		To encourage students to be interested in environmental protection	6 (6.7)
		It is important to have knowledge about how to protect nature	5 (5.6)
		To introduce the growing generation to current problems	2 (2.2)
		To provide knowledge about environmental protection	2 (2.2)
		To improve students' knowledge about environmental protection	2 (2.2)
	Environmental understanding 23 (25.8)	To form an understanding that nature needs to be protected	8 (9.2)
		It is important to understand environmental issues	6 (6.7)
		To instil an understanding of the importance of nature conservation	3 (3.3)
		To form an understanding of the harm of environmental pollution	3 (3.3)
		To help people understand the importance of nature conservation	1 (1.1)
		Understanding of global problems	1 (1.1)
		To help people understand the importance of nature conservation	1 (1.1)
Environmental consciousness education 43 (47.5)	Development of skills/habits 16 (17.7)	To teach children to protect nature	5 (5.6)
		To develop environmental habits	4 (4.4)
		It is important to develop critical thinking	2 (2.2)
		To contribute to environmental protection	2 (2.2)
		To educate emphatic students	1 (1.1)
		Set a good example for children	1 (1.1)
		To teach to take care of nature	1 (1.1)
	Education of a responsible citizen 10 (11.1)	To educate a conscious citizen	5 (5.6)
		To educate environmentally friendly citizens	4 (4.4)
		To encourage society to protect the environment	1 (1.1)
	Education of a responsible consumer 9 (9.9)	To educate a conscious consumer	4 (4.4)
		To educate less consumeristic habits	2 (2.2)
		To educate a habit to sort waste	2 (2.2)
		Drawing attention to the harm of consumerism	1 (1.1)
	Education of responsibility and respect for nature 8 (8.8)	To develop an understanding that environmental protection is the responsibility of every person	2 (2.2)
		To develop a sense of responsibility	2 (2.2)
		To form a responsible attitude towards nature	2 (2.2)
		To form a sense of respect for nature.	1 (1.1)
		It is respect for self and others	1 (1.1)

Note: Totally 90 semantic units were extracted

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Table 2 shows that speaking about the importance of environmental education, the statements were evenly distributed therefore it was possible to extract two broad categories *Environmental knowledge and understanding* and *Environmental consciousness education.* The first category consists of two subcategories *Environmental knowledge acquisition* and *Environmental understanding.* The statements in them were also similarly distributed, only the statements assigned to one subcategory were characterised by the keyword knowledge, to the other – by understanding.

The second category consists of 4 subcategories. The biggest of them is – *Development of environmental skills*/*habits*. Teaching children to protect nature, development of critical thinking, empathy, etc., find a place here. The second subcategory is *Education of a responsible citizen.* Statements assigned to this subcategory mention a citizen who would be able to protect the environment, environmental problems would not be unfamiliar to him, and he would have sufficient awareness to solve them. The third subcategory is *Education of a responsible consumer.* The statements show that future primary school teachers express concern about excessive consumption, and the need to educate a conscious consumer who is able to sort waste and understands that consumption habits need to be improved and changed. The fourth smallest subcategory *Education of responsibility and respect for nature* combines statements about a sense of responsibility, a responsible attitude towards nature, and respect for it.

School is the space, where the child creates his environmental knowledge system and the contexts, various activities, and tools necessary for them. Together with the student, his environmental knowledge goes home to the family. And if an environmentally friendly way of life is implemented in the family, then there are fewer objections when developing the child's environmental awareness, and it can be expected that the student will be a responsible citizen and consumer in the future, able to solve environmental problems as well.

The content of environmental education is an extremely significant component of primary school. Environmental education problems/topics to be studied in primary school are diverse from the students' point of view, covering a wide range of topics. Five categories are extracted, reflecting the theme of environmental education: *Waste problems*, *Environmental pollution*, *Global climate change*, *Environmental solutions,* and *Value crisis*. The results are presented in Table 3.

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Table 3

Environmental Issues/Topics to be Studied in Primary School [n (%)]

Categories	Subcategories	Statements	*n* (%)
Waste problems 74 (35.1)	Waste management 58 (27.5)	Waste (garbage) sorting	48 (22.8)
		Waste recycling	10 (4.7)
	Waste damage to nature 16 (7.6)	Garbage damage	12 (5.7)
		Abundant use of plastic	3 (1.4)
		Impact of waste on nature	1 (0.5)
Environmental pollution 45 (21.3)	Environmental pollution 19 (9.0)	Pollution	16 (7.6)
		Harmfulness of pollutants	2 (0.9)
		Risk of environmental pollution	1 (0.5)
	Air pollution 14 (6.6)	Air pollution/pollution	8 (3.8)
		Vehicle pollution	6 (2.8)
	Water pollution 10 (4.7)	Water pollution /	10 (4.7)
	Soil pollution 2 (1.0)	Soil pollution	1 (0.5)
		Land depletion	1 (0.5)
Global climate change 38 (17.8)	Climate change 35 (16.4)	Climate change	14 (6.6)
		Global warming	12 (5.7)
		Climate warming	4 (1.8)
		Greenhouse effect	3 (1.4)
		Thinning of the ozone layer	2 (0.9)
	Anthropogenic impact 3 (1.4)	Climate preservation	2 (0.9)
		Human impact on climate	1 (0.5)
Environmental solutions 31 (14.5)	Conservation of recourses 15 (6.9)	Energy (electricity) saving	6 (2.8)
		Water conservation	4 (1.8)
		Resource conservation	2 (0.9)
		Renewable energy sources	2 (0.9)
		Food saving	1 (0.5)
	Fostering a sustainable lifestyle 16 (7.6)	Nature conservation	5 (2.4)
		Use of secondary raw materials	5 (2.4)
		Sustainable living	2 (0.9)
		Environmental management	2 (0.9)
		Pollution reduction	1 (0.5)
		“Zero waste” lifestyle principles	1 (0.5)
Value crisis 24 (11.3)	Destruction of biodiversity 17 (8.0)	Deforestation / Destruction	9 (4.2)
		Endangered species	4 (1.8)
		Poaching and killing animals	1 (0.5)
		Animal hunt	1 (0.5)
		Loss of biodiversity	1 (0.5)
		Mistreatment of animals	1 (0.5)
	Consumerism 7 (3.3)	Overconsumption/consumerism	5 (2.4)
		Human consumerism	2 (0.9)

Note: Totally 212 semantic units were extracted

The abundance and diversity of the statements made by future primary school teachers show that they notice many sensitive problems in the environment and would think that they should be discussed with the students. After analysing the statements and grouping them, 5 categories were extracted. The largest among them is the *Waste problem* (it accounts for more than a third of all statements), which consists of two subcategories *Waste management* and *Waste damage to nature.* These subcategories differ in that one combines statements about waste management as a process, and the other – insights about consequences to nature.

The category *Environmental pollution* consists of 4 subcategories: *Environmental pollution* (speaking in general terms, without distinguishing any sphere), *Air pollution, Water pollution, Soil pollution*. Thus, students understand pollution as a global phenomenon, covering all spheres, they discern the causes of pollution (pollution caused by vehicles), and consequences (land depletion, harmfulness of pollutants).

Global climate change is the third category. It consists of two subcategories Climate change (warming, greenhouse effect, thinning of the ozone layer) and *Anthropogenic impact.*

If the first three categories include environmental issues, then the remaining two are more related to a person, how much he is ready to be responsible for what is happening and make the necessary decisions. So, the fourth category is *Environmental solutions.* It consists of two subcategories. One of them is *Fostering a sustainable lifestyle* (nature conservation, use of secondary raw materials, environment management, "zero waste" lifestyle) – when each starts with himself, looking for harmony with the environment. The second subcategory – *Resource conservation*, includes energy, water, food saving, resource conservation, using renewable energy sources.

Slightly more than a tenth of all statements fall into the fifth category – *Value crisis.* The subcategory *Destruction of Biodiversity* combines the statements about deforestation, poaching and animal hunting, etc. Students also pay attention to excessive consumption, which is why the second subcategory is called *Consumerism.*

Environmental education is also an education of spiritual values. Future teachers also notice the value aspect, name it, and feel that environmental problems cannot be solved without a change in human values. These are related things.

An important aspect of environmental education in primary school is future primary school teachers' vision about the implementation of environmental education. After analysing the data, four categories were extracted: *Strengthening of environmental education*, *Strengthening of formal environmental education*, *Development of informal environmental education, Promotion of sorting and use of secondary raw materials.* The results are presented in Table 4.

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Table 4

The Vision of Environmental Education Implementation at School [n (%)]

Categories	Subcategories	Statements	*n* (%)
Strengthening of environmental education 61 (48.6)	Development of environmental knowledge and understanding 25 (19.8)	To help students understand the meaning of protecting the environment	8 (6.3)
		To develop students' environmental awareness	6 (4.7)
		To provide students with a wider understanding of the environment	5 (4.0)
		To provide students with knowledge about the environmental protection	5 (4.0)
		To acquaint children with environmental issues	1 (0.8)
	Development of environmental skills 22 (17.6)	To encourage to manage the environment	5 (4.0)
		To encourage students to actively participate in environmental protection activities	4 (3.2)
		To teach to protect nature	3 (2.4)
		To develop educational environmental activities	3 (2.4)
		More practical knowledge	3 (2.4)
		To develop critical thinking	2 (1.6)
		To teach to project consequences	1 (0.8)
		To develop children's habits to take care of nature	1 (0.8)
	Development of environmental value attitude 10 (8.0)	To teach to love nature	4 (3.2)
		To motivate children to be interested in environmental protection	3 (2.4)
		To develop carefulness to ecological problems	2 (1.6)
		To teach children to be responsible for environmental protection	1 (0.8)
	Teacher involvement 4 (3.2)	To contribute personally to environmental sustainability	2 (1.6)
		To show a personal example	2 (1.6)
Strengthening formal environmental education 24 (18.8)	Increasing the effectiveness of lessons 23 (18.0)	To integrate environmental issues into other educational activities	12 (9.3)
		To create videos for children about environmental protection	7 (5.5)
		To develop environmental education during lessons	2 (1.6)
		To discuss environmental issues in more detail in world cognition lessons	2 (1.6)
	Educational environment improvement 1 (0.8)	To set up an ecology classroom at school	1 (0.8)
Development of non-formal environmental education 22 (17.5)	Environmental action organisation 10 (8.0)	To organise lessons-actions	4 (3.2)
		To organise school environment management actions	3 (2.4)
		To initiate environment management actions	3 (2.4)
	Environmental project implementation 10 (7.9)	To prepare environmental projects	6 (4.7)
		To participate in environmental projects	4 (3.2)
	Other environmental activity organisation 2 (1.6)	Organise educational environmental trips	1 (0.8)
		Organise environmental quizzes	1 (0.8)
Promotion of sorting and use of secondary raw materials 19 (15.1)	Increasing awareness of the importance of sorting 16 (12.7)	To talk more about waste sorting	8 (6.3)
		To encourage students to sort garbage	5 (4.0)
		To introduce waste sorting skills to children	3 (2.4)
	Promotion of the use of secondary raw materials 3 (2.4)	To encourage the use of secondary raw materials	3 (2.4)

Note: Totally 126 semantic units were extracted

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Table 4 shows that after grouping students' observations about environmental education visions at school, 4 categories were extracted. Almost half of the statements are combined by *Strengthening of environmental education.* This category consists of two bigger and two smaller subcategories. *Development of environmental knowledge and understanding* and *Development of environmental skills* account for ¾ of all statements. Future teachers would think that it is necessary to help children understand many things happening in the environment, to acquaint them with the environment, and its problems, involve them in activities and working together, develop environmental skills as well as critical thinking and problem-solving abilities. The statements of motivation, interest in the environment, and love for nature are combined by the third subcategory *Development of environmental value attitudes*. Students note that environmental education would be strengthened by the involvement of the teacher, his participation and being an example for his students. These aspects are covered by the fourth subcategory *Teacher involvement.*

The other two categories are *Strengthening formal environmental education* and *Development of non-formal environmental education*. The first consists of two subcategories *Increasing the effectiveness of lessons* (integration of environmental issues into various activities, creating environmental videos, more environmental topics in world cognition lessons) and *Educational environment improvement,* for example, by setting up an ecology classroom. *The vision of the development of informal environmental education* is revealed by three subcategories: *Environmental action organisation,* which is usually understood as environmental management; *Environmental project implementation* (their preparation and participation in them); *Other environmental activity organisation* (educational trips, quizzes).

The fourth category *Promotion of sorting and use of secondary raw materials* combines two subcategories: *Increasing awareness of the importance of sorting* (talking about sorting and teaching sorting, and sorting) and *Promotion of the use of secondary raw materials*, which could lead to a more sustainable lifestyle.

Discussion

The aim of the study was the position of preschool and primary education teachers in terms of the meaning, problems, and vision of practical implementation of environmental education. From the point of view of students, the meaning of environmental education is as if twofold. Two almost equal categories reflect the importance of environmental education, i.e., environmental knowledge and understanding and development of environmental awareness. Environmental education in primary school is carried out throughout the entire pedagogical process – in everyday life and in the classroom. At this stage, children's emotional and value attitude towards the environment is intensively formed, environmental knowledge is formed, empathy is developed, etc. Therefore, acquiring environmental knowledge and environmental awareness are significant components of environmental education. Researchers claim that teachers at all levels of education should teach their students that they have to live together with the environment (Yurttaş & Sülün, 2010), environmental awareness development becomes one of the essential aspirations (Sola, 2014).

The conducted study showed that future primary school teachers have a thorough understanding of environmental education problems. Such a concept includes not

only practical but also value aspects. This is related to other studies stating that most university students have prior environmental concepts and think that in order to solve environmental problems they face, good environmental education is necessary (Esteban Ibáñez et al., 2020).

The study showed that future teachers emphasize the strengthening of environmental education, which is mainly associated with the development of knowledge and understanding, as well as the formation of environmental skills. However, proper attention is not paid to the development of environmental value attitudes. In the vision of students' environmental education, both formal and informal environmental education development is emphasized. The least emphasis is placed on the promotion of sorting and the use of secondary raw materials. It can be said that students' position basically reflects the prevailing environmental discourse. One must agree with researchers' opinion that it is necessary for teacher educators to redesign and develop new courses and programmes to enhance conceptual environmental knowledge and educational experiences for beginning and experienced teachers (Meier & Sisk-Hilton, 2017). University studies should include curricula that provide environmental education using alternative strategies and do not limit environmental education to any one course (Candan & Erten, 2015). Prospective teachers should be informed about environmental problems and encouraged to participate in environmentally oriented social and cultural activities (Çokçalışkan & Çelik, 2017).

The study has several limitations. Only prospective teachers of preschool and primary education participated in the study. The study data were not analysed in terms of possible gender differences due to the homogeneity of the study population. Despite these limitations, the study reveals the position of future teachers on the issue of environmental education, however, highlights certain guidelines for better preparation of future preschool and primary education teachers. The changing environment brings many different changes. Practically all of us are becoming more digitally literate, and our needs are changing. Environmental awareness and literacy is becoming an equally important topic. Environmental education becomes the core of modern education and is the key to the transformation of modern systems and society as a whole. More detailed research is needed in the field of effective implementation of environmental education at the primary education level.

Conclusions and Implications

It has been established that future teachers have a fairly clear position on the issue of environmental education. Environmental education is treated as a significant part of general education. The importance of environmental education is expressed in two equal components – environmental knowledge and understanding, and environmental awareness (skills/habits, responsibility, respect for nature). Students would tend to use not only formal (environmental knowledge, subject integration, use of methods, various activities) but also informal (talks, actions, projects) opportunities for environmental education of primary school students. They tend to convey environmental knowledge to students in various ways - through experience, active participation of students, practical activities, knowledge obtained and developing understanding.

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Students see different areas of environmental education, which should be covered in primary school. Topics include such areas as waste issues, environmental pollution, global climate change, environmental solutions, value crisis. Judging from the point of view of age groups, primary school students (7-11 years old) are usually willing to take responsibility, are empathetic, understand the moral imperative, their thinking is strongly dependent on experience, they learn quickly from authority figures, so, the position of the teacher, his active participation in environmental activities, his environmental values are very important. This aspect was revealed in the study. However, the teacher's cooperation with the students' parents on environmental education issues is equally important, however, this element was not revealed in the study.

Future teachers' vision of implementing environmental education at school includes both a cognitive component (strengthening of environmental education through the development of knowledge and understanding, value attitude formation), and a practical-behavioural component (increasing the awareness of waste sorting and promoting the use of secondary raw materials).

Declaration of Interest

The authors declare no competing interest.

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