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HOW PROSPECTIVE TEACHERS PERCEIVE SOCIETY'S MOST PRESSING ENVIRONMENTAL CHALLENGES

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This study provides a comparative analysis of environmental concerns among prospective teachers in Slovenia and Croatia, revealing both shared and distinct priorities shaped by regional context. Students identify climate change, waste management, and pollution in general as key issues on a local level, though Croatians uniquely emphasize wild dumps, while Slovenians are more concerned with air pollution. On a global scale, both groups highlighted climate change, waste problem, and air pollution. Croatian students perceive risks like plastic pollution and biodiversity loss as especially severe, likely influenced by regional environmental challenges. Both groups emphasize waste management and environmental education, with Slovenians prioritizing waste treatment and Croatians emphasizing educational initiatives. Notable behavioral differences include Slovenian students' focus on reducing packaging waste, while Croatian students favor recyclable and biodegradable options. Divergent attitudes toward reliable information sources are also observed, as Slovenian students trust institutional sources more, while Croatian lean toward informal networks. These

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findings underscore the need to strengthen environmental education in schools to foster responsible attitudes and equip future generations with knowledge and skills.

Keywords: *environmental attitudes; environmental behaviors; environmental literacy; pollution; sustainable education*

1. Introduction

The 21st century is marked by a range of critical environmental problems, many of which are interconnected and threaten the health of ecosystems and human societies (Morand & Lajaunie, 2017). Climate change and global warming are the most pressing challenges, driven by human activities like burning fossil fuels, deforestation, and excessive industrialization (Palita, 2016; Shivana, 2022). This has led to rising global temperatures, melting ice caps, and increasing sea levels, exacerbating the loss of biodiversity and habitat destruction (Williams *et al.*, 2023). Deforestation contributes not only to climate change but also to soil erosion and the loss of valuable species. Another significant issue is air pollution, caused by emissions from traffic, industry, and intensive agriculture, which contributes to ozone layer depletion and acid rain (Edo *et al*., 2024). Simultaneously, the waste problem, particularly plastics, overwhelms ecosystems, with wild dumps and improper disposal practices polluting land and oceans, further contaminating water sources (Jambeck *et al*., 2023). Water pollution leads also to a shortage of drinking water, impacting human health (Bulić, 2023). The overuse of non-renewable resources accelerates environmental degradation, while population growth and urbanization place unsustainable demands on natural resources (Xu & Zhao, 2023). Intensive agriculture further strains ecosystems, contributing to soil pollution and water contamination (Chaudhary *et al*., 2023). Besides, novel environmental issues constantly arise such as: cloud computing and data storage centers, food waste, fast fashion and textile waste. Addressing these multifaceted issues requires global cooperation and a shift towards sustainable practices, renewable energy, and conservation efforts (Hernández-Blanco *et al*., 2022).

Moreover, it is essential to incorporate environmental education into the framework of educational systems (Al-Mansoori & Hamdan,

2023). As future educators and teachers, we hold a crucial role in ensuring that our students develop awareness of the impact their actions have on the environment and become responsible citizens working with the local community (de Moraes Abrahão *et al*., 2024). Schools and communities can collaborate through hands-on, innovative projects to tackle environmental issues, creating practical solutions that directly engage students and community members. These collaborations provide opportunities to address local environmental challenges such as waste management, air and water pollution, and habitat restoration, while also fostering a deeper understanding of global issues like climate change and biodiversity loss (Kilag *et al*., 2023). By involving various stakeholders–educators, students, local businesses, and civic organizations–these projects emphasize the importance of collective responsibility and long-term commitment to achieving sustainable outcomes.

Environmental awareness of teachers plays a crucial role in shaping future generations' understanding and engagement with environmental sustainability (Padmanabhan *et al*., 2017; Nazarenko & Kolesnik, 2018). Research indicates that students in educational fields tend to exhibit a higher level of environmental awareness due to their potential role as future educators (Goldman *et al.*, 2014; Damoah & Omodan, 2023). This awareness is often reflected in their attitudes, as many students demonstrate a positive outlook towards environmental protection and sustainability (Özden, 2008). However, there is often a gap between attitudes and actual behavior (Anđić, 2023). While students may express concern about environmental issues, this does not always translate into proactive behaviors, such as reducing waste or participating in environmental initiatives (Gifford & Nilsson, 2014; Moody-Marshall, 2023). Factors influencing this gap include limited resources, lack of environmental education, and perceived barriers for individual action (Kollmuss & Agyeman, 2002). Educational programs that emphasize experiential learning, such as hands-on environmental projects, have been shown to effectively enhance both environmental attitudes and behaviors (Mifsud, 2012). Therefore, teachers must integrate comprehensive environmental education into their curricula to foster both awareness and actionable behaviors among future educators, thereby promoting broader societal change toward sustainability (Anand, 2023).

2. Research problem and aim

Numerous studies (Fakhriyah *et al.*, 2024; Goulgouti *et al.*, 2019; Sadik & Sadik, 2014) have highlighted the need to enhance the environmental literacy of prospective teachers. Understanding their perceptions of environmental issues is key to improving environmental education and fostering higher levels of environmental literacy (Keinonen *et al*., 2016).

Environmental problems are not confined to individual countries, as many of these issues transcend national borders. Dolenc Orbanić and Kovač (2021) highlighted the importance of cross-country comparisons in examining prospective teachers' environmental literacy. These comparisons help identify differences in environmental literacy influenced by education, environment, lifestyle, cultural and social norms, and environmental policies across nations.

Therefore, the objective of this research was to evaluate and compare the environmental awareness, attitudes, and behaviors of Slovenian and Croatian students, prospective teachers, as well as gather their views on environmental education. This aims to enhance the environmental education component within teacher training programs.

3. Methodology

3. 1 Sample

The study was conducted among 218 prospective teachers, all students from faculties of education. Of these, 152 were from the University of Primorska in Slovenia (SLO), and 66 were from Juraj Dobrila University in Croatia (CRO). Participants in Slovenia were between 20 and 22 years old, whereas those in Croatia were aged between 19 and 23. The majority of participants in both groups were female, reflecting the current gender distribution within the teaching profession in both countries. In Slovenia, 93.7% of primary school teachers were female and in Croatia 98.9% (Statistical Office, Republic of Slovenia, 2024; Statistical Office, Republic of Croatia, 2024). The socio-economic status of students in both groups was comparable.

3. 2 Instrument and procedures

The questionnaire, adopted from the study of Dolenc Orbanić and Kovač (2021), was used to collect data. It was structured into three parts: (a) the first part assessed students' environmental awareness, (b) the second part examined their environmental attitudes and behaviors, and (c) the third part gathered their opinions on environmental education.

The first part included three open-ended questions. Students were required to list three environmental issues they would highlight on a global scale and identify the one they consider most pressing in their local environment, as well as their views on the actions required to address these issues. Additionally, students were asked to rate the perceived level of risk for 29 environmental issues, with response options ranging from 1 (no risk) to 5 (very high risk). The Cronbach's alpha for this scale was .910. According to Nunnally (1978), a reliability score of .70 or higher is considered acceptable, confirming the reliability of this section of the questionnaire.

The second part of the questionnaire examined students' environmental attitudes and behaviors using a 5-point Likert scale with 22 statements. The first set of 8 statements focused on attitudes towards nature, specifically the interaction between humans and nature, as well as responsibility for environmental issues. The second set of 14 statements assessed students' environmental behaviors through their pro-environment actions in daily life. Responses ranged from 1 (strongly disagree) to 5 (strongly agree), and the mean values were calculated for each statement. According to Veisi *et al.* (2018), mean values from 1 to 2.49 indicate a negative attitude, 2.50 to 3.99 indicate a moderate attitude, and 4 to 5 indicate a positive attitude. The scale demonstrated acceptable reliability, with a Cronbach's alpha value of .716.

The third part of the questionnaire focused on environmental education. Three questions (4- and 5-point Likert scales) were designed to assess students' views on several key areas: the societal level of environmental literacy, the sources of information they considered most reliable, and the importance they attributed to environmental education in schools.

Participants were informed about the study's purpose and they voluntarily took part in the study. Anonymity was guaranteed. Completing the questionnaire required 15 to 20 minutes.

3. 3 Data analysis

The quantitative data from the questionnaire were analyzed using SPSS statistical software (version 26.0). Each statement on the 4- or 5-point Likert-type scale was assigned a corresponding numerical value. Descriptive statistics, including measures of central tendency (M) and variability (SD), were used to summarize the data for each statement on the Likert scale. Qualitative data from an open-ended question were first reviewed and categorized into response groups, and the frequency (f, f %) of each category was calculated. Data normality was tested, and based on the results, a parametric t-test was conducted to examine differences in environmental awareness, attitudes, and behavior between Slovenian and Croatian prospective teachers.

4. Results and discussion

Table 1 compares the perception of Slovenian and Croatian students regarding the most important global and local environmental issues, revealing several interesting patterns regarding which environmental issues are most significant to each group.

On the local scale, the three predominant issues listed by the students are pollution in general and waste problem, altering between first and second place among the two groups, and climate change and global warming ranking third.

Both groups of students also agree that population growth, soil pollution, ice melting, biodiversity loss and ozone layer depletion pose no threat on a local scale, with no students listing them at all on the local level (f = 0.0%). Out of the 18 issues students mention in total, on the local scale Slovenian students do not mention 6 (ozone layer depletion, biodiversity loss and habitat destruction, ice melting, soil pollution, population growth and urbanization, and wild dumps), while Croatian students do not mention 8 (adding to the aforementioned intensive agriculture, acid rain, and traffic). Notably, the issue of wild dumps is uniquely mentioned by Croatian students, and only on the local scale, not on the global. This might reflect specific local environmental problems in Croatia that are less relevant in Slovenia.

At the global level, climate change and global warming, together with the waste problem, were identified as the two most pressing environmental issues, alternating between first and second place among the students, with air pollution consistently ranking third. These findings are supported by the study of Grinaj Ciefova and Baculáková (2021).

It is interesting to notice that water/sea pollution is placed fourth among Slovenian students' global issues with a notable frequency of 32.2%, while Croatian students do not mention it at all globally; however, both groups consider it a local topic. Slovenian students show a more diverse concern across issues, and consider traffic, lack of drinking water and soil pollution to be an issue, while their Croatian colleagues pay no significance to those issues. Soil pollution is an issue mentioned only by Slovenian students, and only on the global scale. Systematic studies indicate that soil in Slovenia is not heavily polluted (Government of the Republic of Slovenia, 2023), which may explain why students tend to address this issue only at the global level. Furthermore, Slovenian education places strong emphasis on a wide spectrum of environmental topics—including soil pollution—fostering a more holistic understanding of environmental issues.

Table 1. Slovenian and Croatian students' list of most important global and local environmental issues

Environmental issue	Global scale f %		Local scale f %	
	SLO	***CRO***	***SLO***	***CRO***
Climate change and global warming	54.6	36.4	19.1	10.6
Waste problem	42.8	86.3	27.0	15.2
Air pollution	33.6	15.2	13.8	1.5
Water/sea pollution	32.2	0.0	9.9	7.5
Pollution in general	31.6	13.6	26.3	28.8
Deforestation	21.1	9.1	0.7	3.0
Ozone layer depletion	15.8	1.5	0.0	0.0
Biodiversity loss and habitat destruction	10.5	9.1	0.0	0.0
Traffic	9.9	0.0	2.6	0.0

Excessive use of non-renewable resources	9.2	4.5	2.6	4.5
Lack of drinking water	8.6	0.0	0.7	1.5
Ice melting	7.9	1.5	0.0	0.0
Plastics	6.6	13.6	1.3	6.1
Acid rain	5.9	3.0	1.3	0.0
Soil pollution	4.0	0.0	0.0	0.0
Intensive agriculture	3.3	1.5	1.3	0.0
Population growth and urbanization	3.3	4.5	0.0	0.0
Wild dumps	0.00	0.0	0.0	4.5

The comparison between Slovenian and Croatian prospective teachers' perceptions of environmental risks caused by human activity reveals several noteworthy trends (Table 2), contextualized by existing literature. All students rated water overuse and pollution as a very high-risk issue, with no significant difference between the groups ($t(216) = -.296$, $p = .767$). This aligns with global studies emphasizing that water-related issues, particularly pollution and overuse, are considered critical environmental threats across different regions (Edo *et al.*, 2024). The growing scarcity of clean water due to pollution and over-extraction is often a pressing concern, particularly in countries where freshwater resources are stressed (Kumar *et al.*, 2023). Similarly, greenhouse gas emissions were viewed as high-risk by both groups, also with no significant difference ($t(216) = -1.133$, $p = .259$). This is consistent with global concerns about climate change, where rising greenhouse gas emissions are viewed as a primary driver of global warming (Kogan, 2022).

Table 2. Slovenian and Croatian students' perception of environmental risks (1– no risk, 5– very big risk)

Environmental risk	**SLO (*N* = 152)**		**CRO (*N* = 66)**		***t*-test**	
	M	*SD*	*M*	*SD*	*t*	*p*
Water overuse and pollution	4.61	.682	4.64	.777	-.296	.767
Emission of greenhouse gasses	4.45	.744	4.58	.824	-1.133	.259
Emission of freons and halons	4.42	.733	4.38	.924	.329	.743

Plastic pollution	4.40	.800	4.71	.739	-2,781	.008
Hazardous waste	4.38	.689	4.70	.701	-3.132	**.002**
Deforestation	4.30	.788	4.52	.827	-1.858	.064
Heavy metal pollution	4.26	.812	4.73	.669	-4.402	**.001**
Persistent organic pollutants	4.22	.823	4.58	.745	-3.102	**.002**
Traffic	4.20	.825	4.67	.730	-4.130	**.001**
Destruction of habitats	4.18	.738	4.38	.973	-1.502	.136
Depletion of natural resources	4.16	.857	4.24	.978	-.591	.555
Activities causing biodiversity loss	4.08	.810	4.71	.780	-5.362	**.001**
Inadequate disposal of medicinal waste	4.06	.871	4.36	.971	-2.289	**.023**
Use of plant protection products	4.03	.817	4.18	1.021	-1.048	.297
Untreated wastewater	3.86	.924	4.26	.900	-2.978	**.003**
Emission of sulfur and nitrogen oxides	3.80	.766	4.24	.946	-3.673	**.001**
Indoor air pollution	3.74	1.059	4.05	1.195	-1.900	.059
Human population growth	3.70	1.054	3.53	1.112	1.099	.273
Activities causing eutrophication	3.69	.808	4.27	.795	-4.911	**.001**
Wetland destruction	3.68	.925	4.21	.832	-4.037	**.001**
Light and noise pollution	3.68	.994	4.29	.907	-4.273	**.001**
Oil drilling	3.65	.901	4.55	.826	-6.901	**.001**
GMOs	3.58	.973	3.92	1.114	-2.302	**.022**
Activities contributing to erosion	3.54	.835	4.12	.937	-4.491	**.001**
Invasive species	3.50	1.029	4.17	.938	-4.510	**.001**
Nanoparticles	3.47	.837	4.02	1.000	-4.181	**.001**
Damming rivers	3.41	.999	3.77	1.093	-2.407	**.017**
Sport fishing and hunting	2.97	1.048	3.33	1.232	-2.069	**.041**
Overgrazing	2.78	1.016	3.86	1.006	-7.238	**.001**

Education on climate risks plays a crucial role in shaping this understanding, as studies have shown that environmental education increases awareness of the anthropogenic causes of climate change (Mata

et al., 2024). However, Croatian prospective teachers perceived plastic pollution as a significantly greater risk than Slovenian ($t(216) = -2.781$, $p = .008$). This heightened concern in Croatia may reflect more prominent public discourse and media coverage around plastic pollution in recent years, consistent with global trends in awareness of plastic waste, particularly in coastal and marine environments (Jambeck *et al.,* 2023; Markić *et al*., 2024). Recent educational campaigns and policies targeting plastic reduction may have further influenced Croatian prospective teachers' perceptions (Tišma *et al.,* 2024). The same pattern emerged with hazardous waste, where Croatian students rated it higher than their Slovenian counterparts ($t(216) = -3.132$, $p = .002$). This finding is in line with research indicating that hazardous waste management is a growing concern, particularly in areas where industrial waste, chemical spills, and electronic waste are prominent issues (Hernández-Blanco *et al*., 2022). The increasing public awareness of the health and environmental impacts of hazardous materials could explain the higher risk perception in Croatia. Heavy metal pollution also showed a significant difference, with Croatian prospective teachers perceiving it as a greater risk than their Slovenian peers ($t(216) = -4.402$, $p < .001$). Studies indicate that regions with higher industrial activities and historical pollution are often more attuned to the dangers of heavy metal contamination, which can severely impact ecosystems and human health (Binner *et al*., 2023). This difference may be rooted in differing local experiences or media focus on heavy metal contamination issues in Croatia. Furthermore, public awareness is often influenced by the frequency of environmental incidents and the level of education on environmental risks, which further shapes how communities perceive and respond to such pollution. Similarly, Croatian students rated persistent organic pollutants higher than Slovenian ($t(216) = -3.102$, $p = .002$), and traffic was viewed as a more severe risk by Croatian participants compared to Slovenian ($t(216) = -4.130$, $p < .001$). Differences extended to issues like biodiversity loss, with Croatian students rating it significantly higher than Slovenians ($t(216) = -5.362$, $p < .001$). This may be partly due to the Croatian education system placing greater emphasis on the threats to forests, wetlands, and rare habitats such as fens. These topics are often integrated into biology and environmental education curricula, helping raise awareness among students from an

early age. In terms of untreated wastewater, Croatian prospective teachers also rated it as a greater risk than Slovenians ($t(216) = -2.978$, $p = .003$). In Croatia, where water quality issues may be more pressing due to tourism and agricultural activities, the risk associated with untreated wastewater may be perceived as more immediate and tangible (Geić *et al*., 2012). The same pattern of concern was found for sulfur and nitrogen oxides ($t(216) = -3.673$, $p < .001$), invasive species ($t(216) = -4.510$, $p < .001$), and nanoparticles ($t(216) = -4.181$, $p < .001$). Croatian prospective teachers also viewed activities like oil drilling as a significantly greater risk ($t(216) = -6.901$, $p < .001$). In recent years, there have been several oil spills along the Croatian coast of the Adriatic Sea, drawing considerable media attention. This frequent coverage has likely contributed to heightened awareness among young people about the environmental risks associated with offshore drilling. In contrast, both groups perceived certain issues similarly, such as the emission of greenhouse gasses and freons, the depletion of natural resources ($t(216) = -.591$, $p = .555$), and the use of plant protection products ($t(216) = -1.048$, $p = .297$). While both groups generally viewed human activities as significant contributors to environmental risks, Croatian prospective teachers consistently rated many of these risks, particularly those related to pollution, habitat destruction, and specific activities like plastic pollution, hazardous waste, and invasive species, as more severe than their Slovenian counterparts. The elevated concern among Croatian prospective teachers for these issues highlights a need for targeted educational interventions in both countries.

The third question in the questionnaire focused on the activities students believed were important for addressing environmental issues (Table 3). The results indicate that students from both countries highlighted waste management and environmental education as key activities, with Slovenian students placing greater emphasis on proper waste treatment and Croatian students prioritizing environmental education. A significant portion of Slovenian prospective teachers viewed the promotion of public transport as an activity to mitigate environmental problems. This result has been expected since Slovenia has an extremely high share of private cars in passenger transport, which is one of the most unsustainable modes of transport (Kušar *et al*., 2014). In contrast, Croatian prospective teachers did not mention public transport at all. Students from both countries

also recognized the importance of organizing activities for environmental protection and implementing relevant legislation. Slovenian students considered the use of renewable resources and the reduction of fossil fuel consumption more crucial for environmental protection than Croatian students –a view likely influenced by a strong national support for renewable energy initiatives (Government of the Republic of Slovenia, 2023).

Table 3. Slovenian and Croatian students' suggestions for activities to solve environmental problems (N_{SLO} = 152, N_{CRO} = 66)

Activities	**SLO (f%)**	**CRO (f %)**
Waste management (reduction, sorting, recycling, wastewater treatment)	40.79	39.39
Environmental education	38.16	54.55
Use of public transport or riding a bike	24.34	0.00
Organizing activities for environmental protection	23.03	18.18
Adequate environmental policy and legislation	8.55	6.06
Use of renewable sources/reduction of fossil fuel	8.55	1.51
Less packaging, less plastic	6.58	3.03
Water-saving	6.58	0.00
Lifestyle changes to preserve the environment	6.58	4.55
Reduction of greenhouse gas emissions	5.92	3.03
Energy-saving	5.26	0.00
Change of dangerous/toxic materials	0.00	3.03
Reduction of pollution in sea water	0.00	4.55
More protected areas	0.00	3.03

Additionally, Croatian students did not highlight the importance of water- and energy-saving, and they viewed reducing plastic use as slightly less important than Slovenian did. Despite the prominence of climate change as a global issue, only a small proportion of prospective teachers mentioned reducing greenhouse gasses. A few Croatian students indicated the reduction of marine pollution, which was not mentioned by Slovenian peers – likely due to Croatia's more extensive coastline compared to Slovenia's. Furthermore, only Croatian students considered

increasing protected areas as a solution to environmental problems. This omission by Slovenian students may be due to Slovenia already having a higher proportion of protected areas compared to Croatia.

To examine the students' environmental attitudes and behaviors, they were asked to express their views on selected statements. Students from both countries showed positive environmental attitudes (mean values ranging from 4 to 5), with the exception of the last two statements (Table 4). The statements that received the highest levels of agreement in both groups were "I enjoy being in nature because it helps me relax" and "Protecting nature is important to me," which aligns with the findings of Koc and Kuvac (2016). Notably, there was a statistically significant difference between the two groups regarding the first statement ($t(216) = 2.926$, $p = .004$), with Croatian students expressing stronger agreement.

Prospective teachers also showed strong agreement on the importance of nature conservation, emphasizing its benefit for all living beings, not just for human well-being. Both groups expressed the lowest levels of agreement with the statement that scientific and technological development is the solution to environmental problems (Table 4). The results revealed statistically significant differences between the groups, with Croatian students showing slightly higher agreement with this statement ($t(216) = 2.576$, $p = .003$). Rapid progress in science and technology has significantly enhanced our quality of life, improving areas such as healthcare, communication, and energy supply. However, these advancements can also have negative impacts on both our lives and the environment. For instance, while technology offers many solutions to environmental problems, it also contributes to those issues (Proudfoot & Kelley, 2017; Voulvoulis & Burgman, 2019).

The second set of statements, focusing on pro-environmental actions in daily life, was employed to assess students' environmental behaviors. Higher mean values indicated greater environmental awareness and sensitivity. The results showed that prospective teachers expressed the highest levels of agreement with statements supporting the use of renewable energy, reducing waste, and recycling (Table 4). Statistically significant differences between the groups were observed for the statement on reducing packaging volume ($t(216) = 2.463$, $p = .016$), with Slovenian students showing a higher agreement. Both groups expressed the lowest agreement with the statement about reading articles related

to environmental issues ($t(216) = -4.315$, $p = .001$). The results also revealed statistically significant differences between students from the two countries regarding their preference for biodegradable ($t(216) = -5.590$, $p = .001$) and recycled products ($t(216) = -2.724$, $p = .007$). Croatian students pay more attention to recyclable and biodegradable products than Slovenians, which may be due to the different recycling strategies in the two countries. Croatian students were more likely than Slovenians to warn others when they observed environmental harm ($t(216) = -3.811$, $p = .001$).

Table 4. Slovenian and Croatian students' environmental attitudes and behaviors (1– strongly disagree; 5 – strongly agree)

Environmental attitudes and behaviors	**SLO (*N* = 152)**		**CRO (*N* = 66)**		***t*-test**	
	M	*SD*	*M*	*SD*	*t*	*p*
I like being in nature because I relax.	4.69	.555	4.88	.373	-2.926	.004
Protecting nature is important to me.	4.52	.681	4.65	.540	-1.524	.129
Nature must be preserved primarily due to plants, animals, bacteria, viruses and fungi, and not just for the well-being of people.	4.50	.789	4.62	.855	-1.016	.311
I believe that environmental problems will only intensify.	4.36	.715	4.36	.939	-.014	.989
Industry should be required to use recycled material, although it may cost more than production from new raw materials.	4.33	.779	4.56	.825	-2.070	**.040**
As an individual, I can greatly contribute to the preservation of the environment.	4.13	.897	4.15	1.011	-.145	.885
I think people in developed societies should adopt a more conservative way of life to solve environmental problems.	3.97	.857	3.83	1.032	.994	.321

The development of science and technology will eliminate environmental problems.	2.25	.832	2.67	1.194	-2.576	**.003**
I support the use of renewable energy sources.	4.69	.622	4.73	.542	-.413	.680
Before I discard packaging, I reduce its volume.	4.57	.786	4.17	1.210	2.463	**.016**
I regularly recycle waste.	4.27	.913	4.20	1.410	.306	.760
When I go to the store, I take a shopping bag with me.	4.23	.973	4.52	.769	-2.109	.360
I switch off electrical appliances if I am not using them.	3.95	1.161	4.14	1.188	-1.096	.274
In the winter I'm careful not to heat my home more than necessary.	3.91	1.035	3.83	1.284	.453	.651
I have paid attention to my consumption habits to contribute to environmental protection.	3.51	.869	3.74	1.100	-1.545	.125
I prefer biodegradable products over non-degradable ones.	3.48	1.016	4.29	.890	-5.590	**.001**
I prefer recyclable products over non-recyclable ones.	3.45	.996	3.85	1.026	-2.724	**.007**
If possible, I choose a bike ride or public transport instead of driving a car.	3.39	1.288	3.26	1.460	.693	.489
I always warn people if they are doing damage to the environment.	3.43	.946	3.97	1.007	-3.811	**.001**
I'm willing to pay more for environmentally friendly products.	3.30	1.004	3.56	1.152	-1.666	.097
I actively participate in environmental protection activities.	3.04	1.079	3.06	1.263	-.126	.900
I read articles related to environmental issues.	2.46	.969	3.20	1.231	-4.315	**.001**

The comparison between Slovenian and Croatian prospective teachers' perceptions of the reliability of different information sources on environmental issues reveals several noteworthy patterns (Table 5). Students considered the education system a highly reliable source of information, with no significant difference between the groups ($t(216) = 1.946$, $p = .053$). This aligns with literature emphasizing the central role of formal education in shaping environmental knowledge and attitudes (Dolenc Orbanić & Kovač, 2021; Bulić, 2023). Educational institutions are often viewed as credible sources due to their structured curricula and the perceived authority of educators in disseminating scientifically validated information (Anđić, 2023). Similarly, books were rated as reliable by both groups, with no significant difference ($t(216) = 0.841$, $p = .402$). This is consistent with research suggesting that books remain trusted sources of environmental information due to their peer-reviewed content and the rigorous editorial processes involved in their publication (Dillon & Herman, 2023). When considering state institutions, Slovenian students rated them significantly higher in reliability than Croatian, with the difference being statistically significant ($t(216) = 5.024$, $p < .001$). A similar trend was observed for local institutions, with Slovenian students again rating them more reliable than their Croatian counterparts, also reaching statistical significance ($t(216) = 3.899$, $p < .001$). This difference in trust may reflect varying levels of public confidence in governmental bodies between the two countries, influenced by factors such as political transparency, environmental governance, and public communication of environmental risks (Davidovic & Harring, 2020). In Slovenia, stronger environmental policies and more transparent communication may explain the higher trust in state and local institutions (Dolenc Orbanić & Kovač, 2021). Interestingly, Croatian prospective teachers rated voluntary organizations as more reliable than their Slovenian counterparts, with a significant difference ($t(216) = -2.245$, $p = .026$). This may reflect the prominent role that non-governmental organizations (NGOs) and voluntary groups have historically played in raising environmental awareness in Croatia, compared to Slovenia (Tokar *et al*, 2023). NGOs often advocate for environmental justice and grassroots movements (Keinonen *et al*., 2016), which could explain why Croatian prospective teachers have higher trust in these organizations. Regarding media sources such as radio and TV,

no significant differences were found between Slovenian and Croatian prospective teachers ($t(216) = -1.595$, $p = .112$). However, Slovenian students rated magazines and journals as significantly more reliable than their Croatian colleagues, with a significant difference ($t(216) = 3.668$, $p < .001$). These mixed results regarding media reflect broader trends in environmental education, where traditional media sources are sometimes met with skepticism due to concerns about misinformation and varying quality of environmental reporting (Nazarenko & Kolesnik, 2018). A notable difference emerged regarding the internet, with Croatian students perceiving it as a more reliable source of information compared to Slovenian ones ($t(216) = -3.225$, $p = .001$). This may reflect greater exposure to online environmental activism and digital resources in Croatia. While the internet provides dynamic access to information, concerns over misinformation persist (Ren & Zhao, 2023), yet younger generations increasingly rely on it for environmental education (Moody-Marshal, 2023). Family was rated as a significantly more reliable source by Croatian prospective teachers compared to their Slovenian colleagues ($t(216) = -4.383$, $p < .001$). This significant difference likely reflects the influence of social networks on environmental awareness. Informal social networks, such as family, are often key mediators of environmental knowledge, particularly in cultures with strong communal ties (Piras *et al.*, 2023). Similarly, Croatian students rated friends as a more reliable source than Slovenian students, with a significant difference ($t(216) = -5.225$, $p < .001$). In summary, while both groups valued formal educational sources such as the education system and books, significant differences were found in their trust in other information sources. Croatian prospective teachers showed greater trust in voluntary organizations, the internet, family, and friends, whereas Slovenian students placed more trust in state and local institutions, as well as magazines and journals. These findings suggest that cultural, historical, and national governance contexts may influence the perceived reliability of information sources on environmental issues.

Table 5. Slovenian and Croatian students' opinions on the reliability of information sources about environmental issues (1– the least reliable, 5 – the most reliable)

Information sources	SLO (N = 152)		CRO (N = 66)		*t*-test	
	M	SD	M	SD	t	p
Education system	4.36	.713	4.12	1.015	1.946	.053
Books	4.3	.829	4.18	.959	.841	.402
State institution	3.91	.952	3.12	1.283	5.024	**.000**
Local institution	3.82	.887	3.24	1.216	3.899	**.000**
Voluntary organizations	3.82	1.124	4.14	.892	-2.245	**.026**
Radio, TV	3.40	.915	3.64	1.172	-1.595	.112
Magazines, journals	3.34	.914	2.80	1.166	3.668	**.000**
Internet	3.15	.988	3.64	1.090	-3.225	**.001**
Family	3.14	.977	3.74	.917	-4.383	**.000**
Friends	2.80	.965	3.53	.948	-5.225	**.000**

As environmental literacy is assumed to be an important prerequisite for environmental protection and conservation, the students' views on the levels of environmental literacy in our society were collected. Therefore, prospective teachers were asked to share their opinions on the environmental literacy of different generations (Table 6). Slovenian students rated themselves as having the highest level of environmental literacy, while they assessed their grandparents as having the lowest. Croatian students, on the other hand, were more self-critical, rating themselves as the least and primary school students as the most environmentally literate. Across all respondents, grandparents were consistently ranked as having low environmental literacy, with no statistically significant differences between the groups ($t(216) = .766$, $p = .444$). This can largely be attributed to the different lifestyles and living conditions of earlier generations. Factors such as economic conditions, education and access to information, social status, place of residence, political ideology, government regulations on environmental issues, and the level of environmental pollution all play a significant role in shaping public awareness of environmental concerns (Üstün & Celep, 2007). However, when evaluating the environmental literacy of other

generations, there were statistically significant differences between the opinions of Slovenian and Croatian students.

Table 6. Slovenian and Croatian students' opinions on environmental literacy (EL) in our society (1 – low, 4 – very high)

EL of different generations	**SLO (*N* = 152)**		**CRO (*N* = 66)**		***t*-test**	
	M	*SD*	M	SD	t	p
EL student's self-assessment	3.04	.538	2.20	.795	8.958	**.000**
EL of faculty students	2.97	.533	2.35	.794	6.737	**.000**
EL of parents	2.88	.703	2.56	.963	2.699	**.008**
EL of primary school students	2.66	.672	2.88	.869	-2.034	**.043**
EL of grandparents	2.53	.876	2.42	.795	.766	.444

Students' opinions on two statements regarding the importance of environmental education are presented in Table 7. They expressed a high level of agreement with both statements, emphasizing the positive impact of environmental education on fostering a respectful attitude toward nature and increasing knowledge of environmental issues. For both statements, the results show statistically significant differences between the groups, with Croatian students expressing slightly higher levels of agreement.

Table 7. Slovenian and Croatian students' opinions on environmental education (1 – strongly disagree, 5 – strongly agree)

Statement about environmental education	**SLO (*N* = 152)**		**CRO (*N* = 66)**		***t*-test**	
	M	*SD*	*M*	*SD*	t	p
Environmental education contributes to becoming more respectful of nature.	4.35	.730	4.71	.602	-3.552	**.000**
Environmental education in school influences the later understanding of environmental issues.	4.29	.751	4.70	.701	-3.753	**.000**

Conclusion

The comparative analysis of environmental concerns between Slovenian and Croatian prospective teachers highlights distinct local and global issues. Locally, both groups recognize pollution in general, waste management, and climate change as key issues. The difference between the groups is evident in their perception of air pollution issues, as Slovenian students emphasise it to a greater extent. On a global scale, climate change and the waste problem alternated between first and second place among the students, with air pollution ranking third.

Regarding perceptions of environmental risks, both groups identify water pollution and overuse and greenhouse gas emissions as high risks; however, Croatian prospective teachers rate issues such as plastic pollution and biodiversity loss more severely, suggesting their concerns are shaped by regional challenges and public discourse.

Both groups underscored waste management and environmental education as the most important activities to solve environmental problems, with Slovenian students emphasizing waste treatment and Croatian prioritizing education. Differences in priorities reflect the national contexts: Slovenian students emphasized public transport probably due to high private vehicle reliance, while Croatian students focused on marine pollution, likely influenced by their extensive coastline.

The differences in attitudes and behaviors emphasize the importance of localized educational initiatives tailored to specific societal contexts. Analysis of environmental attitudes and behaviors shows positive attitudes among students. Both groups value nature's importance, but Croatian students show stronger attachment to nature. Slovenian students prioritize reducing packaging waste, while Croatian prefer recyclable and biodegradable products. Both groups expressed the lowest level of agreement regarding reading articles about environmental issues, underscoring the need to increase student interest in such materials within school-based environmental education

The comparison of prospective teachers' perceptions of reliable information sources on environmental issues reveals that, while both groups highly trust formal education and books, they diverge in their trust toward other sources. Slovenian students place greater reliability on state and local institutions, as well as on magazines and journals,

whereas Croatian students trust voluntary organizations, the internet, and informal social networks, such as family and friends.

Slovenian students see themselves as the most environmentally literate, while Croatian students rate primary school students higher and themselves lower.

Both groups recognize the importance of environmental education in fostering respect for nature and understanding environmental issues, with Croatian students placing slightly greater emphasis on its value.

These findings reinforce the need to strengthen environmental education in schools to foster responsible attitudes and equip future generations with the knowledge, skills, and mindset needed to address pressing environmental issues. Similarity among Slovenian and Croatian students' environmental literacy could be attributed to similar curricula. On the other hand, the observed differences between the groups illustrate how environmental understanding is shaped by regional contexts and personal experiences, highlighting the importance of customized educational and policy approaches to address both common and specific environmental challenges.

This study has some limitations that should be acknowledged. First, the relatively small sample size may constrain the generalizability of the findings. Second, the data were collected from a single geographic location, which may limit the extent to which the results can be applied to broader populations. Additionally, the sample was unevenly distributed between the two participating countries, potentially affecting the comparability of the results and further limiting their generalizability. This imbalance reflects the actual differences in the number of students enrolled at the participating faculties in each country.

Despite these limitations, the study provides valuable insights into prospective teachers' perceptions of society's most pressing environmental challenges and provides a foundation for future research.

Literature

Al-Mansoori, Fatima & Hamdan, Ahmed (2023), "Integrating indigenous knowledge systems into environmental education for biodiversity conservation: A study of sociocultural perspectives and ecological outcomes", *AI, IoT and the Fourth Industrial Revolution Review*, 13(7), pp. 61–74.

Anand, Mugdha (2023), "An evaluative study of the B. Ed. Curricula operative in universities with specific reference to environmental education", *Journal of Teacher Education and Research*, 18(01), pp. 11–17. https://doi.org/10.36268/JTER/18103

Anđić, Dunja (2023), "Kako mjeriti 'povezanost s prirodom'"? Provjera valjanosti i pouzdanosti skale Povezanost s prirodom na uzorcima učenika, roditelja i učitelja", *Socijalna ekologija*, 32(3), pp. 227–259. https://doi.org/10.17234/SocEkol.32.3.2

Binner, Hannah; Sullivan, Thomas; Jansen, Marcel A. K., & McNamara, Maura E. (2023), "Metals in urban soils of Europe: A systematic review", *Science of The Total Environment*, *854*, 158734, https://doi.org/10.1016/j.scitotenv.2022.158734

Bulić, Mila (2023), "Students' interests in human health topics and environmental topics", *Metodički ogledi*, 30(1), pp. 145–167. https://doi.org/10.21464/mo.30.1.6

Chaudhary, Parul; Xu, Miao; Ahamad, Lukman; Chaudhary, Anuj; Kumar, Govind; Adeleke, Bartholomew Saanu; Krishan, Verma K.; Hu, Dian-Ming; Širić, Ivan; Kumar, Pankaj; Popescu, Simona M. & Abou Fayssal, S. (2023), "Application of synthetic consortia for improvement of soil fertility, pollution remediation, and agricultural productivity: a review", *Agronomy*, 13(3), 643, https://doi.org/10.3390/agronomy13030643

Damoah, Benjamin & Omodan, Bunmi Isaiah (2023), "Tracing the footprints of environmental education in teacher education: A review of pre-service teachers' training in universities", *Journal for Educators, Teachers and Trainers*, 14(5), pp. 184–196. https://doi.org/10.47750/jett.2023.14.05.020

Davidovic, Dragana & Harring, Niklas (2020), "Exploring the cross-national variation in public support for climate policies in Europe: The role of quality of government and trust", *Energy Research & Social Science*, 70, 101785. https://doi.org/10.1016/j.erss.2020.101785

de Moraes Abrahão, Viviane; Vaquero-Diego, Maria & Curras Móstoles, Rosa (2024), "University social responsibility: The role of teachers", *Journal of Innovation & Knowledge*, 9(1), 100464. https://doi.org/10.1016/j.jik.2024.100464

Dillon, Justin & Herman, Benjamin (2023), "Environmental education", in: Norman G. Lederman, Dana L. Zeidler, Judith S. Lederman (eds), *Handbook of research on science education*, New York, Routledge, pp. 717–748. https://doi.org/10.4324/9780367855758

Dolenc Orbanić, Nataša & Kovač, Nives (2021), "Environmental awareness, attitudes, and behaviour of preservice preschool and primary school teac-

hers", *Journal of Baltic science education*, 20(3), pp. 373–388. https://doi.org/10.33225/jbse/21.20.373

Edo, Great I.; Itoje-akpokiniovo, Lilian. O.; Obasohan, Promise; Ikpekoro, Victor. O.; Samuel, Princess O.; Jikah, Agatha N.; Nosu, Laurine C.; Ekokotu, Helen A.; Ugbune, Ufuoma; Oghroro, Ephraim Evi A.; Emakpor, Oghenerume L.; Ainyanbhor, Irene E.; Mohammed, Wail Al-Sharabi; Akpoghelie, Patrick O.; Owheruo, Joseph O. & Agbo, Joy J. (2024), "Impact of environmental pollution from human activities on water, air quality and climate change", *Ecological Frontiers*, 44(5), pp. 874–889. https://doi.org/10.1016/j.ecofro.2024.02.014

Fakhriyah, Fina; Masfuah, Siti & Margunayasa, Gede (2024), "A review of environmental literacy learning for prospective teachers", *Jurnal Penelitian Pendidikan IPA, 10*(8), pp. 536–547. https://doi.org/10.29303/jppipa.v10i8.8327

Geić, Stanko; Geić, Jakša & Rašetina, Sanja (2012), "Interactions between marine ecosystems and tourism on the Adriatic and Mediterranean", in: *Marine Ecosystems*, IntechOpen, pp. 267–310. https://doi.org/10.5772/35664

Gifford, Robert & Nilsson, Andreas (2014), "Personal and social factors that influence pro-environmental concern and behavior: A review", *International Journal of Psychology*, 49(3), pp. 141–157. https://doi.org/10.1002/ijop.12034

Goldman, Daphne; Yavetz, Bela, & Pe'er, Sara (2014), "Student teachers' attainment of environmental literacy in relation to their disciplinary major during undergraduate studies", *International Journal of Environmental and Science Education*, 9, pp. 369–382. https://doi.org/10.12973/ijese.2014.22a

Grinaj Ciefova, Michaela & Baculáková, Kristina (2021), "University students' perception of environmental issues" *Gazdaság és Társadalom*. *Journal of Economy & Society*, 14(3–4), pp. 49–62. https://doi.org/10.21637/GT.2021.3-4.03

Government of the Republic of Slovenia (2023), *Obnovljivi viri energije.* https://www.gov.si/teme/obnovljivi-viri-energije/

Goulgouti, Anastasia, Plakitsi, Aikaterini, & Stylos, Georgios (2019), "Environmental literacy: evaluating knowledge, affect, and behavior of pre-service teachers in Greece", *Interdisciplinary Journal of Environmental and Science Education*, 15(1), e02202. https://doi.org/10.29333/ijese/6287

Hernández-Blanco, Marcello; Costanza, Robert; Chen, Haojie; DeGroot, Dolf; Jarvis, Diane; Kubiszewski, Ida; Motoya, Javier; Sangha, Kamaljit; Stoeckl, Natalie; Turner, Kelly & van 't Hoff, Vince (2022), "Ecosystem health, ecosystem services, and the well-being of humans and the rest of nature", *Global Change Biology*, 28(17), pp. 5027–5040. https://doi.org/10.1111/gcb.16281

Jambeck, Jenna; Moss, Ellie; Dubey, Brajesh; Arifin, Zainal; Godfrey, Linda; Hardesty, Britta Denise; Hendrawan, Gede I.; Hien, To Thi; Junguo, Liu; Matlock, Marty; Pahl, Sabine; Raubenheimer, Karen; Thiel, Martin; Thompson, Richard & Woodall, Lucy (2023), "Leveraging multi-target strategies to address plastic pollution in the context of an already stressed ocean", in: Lubchenco, Jane & Haugan, Peter M. (eds), *The Blue Compendium: From Knowledge to*

Action for a Sustainable Ocean Economy, Cham: Springer International Publishing, pp. 141–184. https://doi.org/10.1007/978-3-031-16277-0_5

Keinonen, Tuula; Palmberg, Irmeli; Kukkonen, Jari; Yli-Panula, Eija; Persson, Christel, & Vilkonis, Rytis (2016), "Higher education students' perceptions of environmental issues and media coverage", *Discourse and Communication for Sustainable Education*, 7(1), pp. 5–22. https://doi.org/10.1515/dcse-2016-0001

Kilag, Osias Kit T.; del Socorro, Adones S.; Largo, Jebbrys L.; Peras, Cyd C.; Book, John Francis P., & Abendan, Cara Frances K. (2023), "Perspectives and experiences in online teaching and learning", *International Journal of Formal Education*, 2(6), pp. 1–13.

Koc, Isil & Kuvac, Meltem (2016), "Preservice science teachers' attitudes toward environment", *International Journal of Environmental and Science Education*, 11(13), pp. 5925–5941.

Kogan, Felix (2022), "The IPCC reports on global warming and land changes", in: *Remote Sensing Land Surface Changes*, Springer, Cham. https://doi.org/10.1007/978-3-030-96810-6_3

Kollmuss, Anja & Agyeman, Julian (2002), "Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behavior?", *Environmental Education Research*, 8(3), pp. 239–260. https://doi.org/10.1080/13504620220145401

Kumar, Prashant; Sahani, Jeetendra; Rawat, Nidhi; Debele, Sisay Eshetu; Tiwari, Arvind; Mendes Emygdio, Ana Paula; Valappil, Abhijith K.; Kukadia, Vina; Holmes, Kathryn, & Pfautsch, Sebastian (2023), "Using empirical science education in schools to improve climate change literacy", *Renewable and Sustainable Energy Reviews*, 178(1), 113232, https://doi.org/10.1016/j.rser.2023.113232

Kušar, Urška; Bernard Vukadin, Barbara, & Kovač, Nataša (2014), *Kazalci okolja v Sloveniji,* Ministrstvo za kmetijstvo in okolje, Agencija Republike Slovenije za okolje.

Markić, Ana; Iveša, Neven; Budiša, Andrea; Kovačić, Ines; Burić, Petra; Pustijanac, Emina; Buršić, Moira; Banai, Benjamin; Pokas Legin, Dora; Palatinus, Andreja & Tutman, Pero (2024), "Fragmented marine plastics as the prevalent litter type on a small island beach in the Adriatic", *Marine pollution bulletin*, 203, 116467, https://doi.org/10.1016/j.marpolbul.2024.116467

Mata, Fernando; Dos-Santos, Maria; Cano-Díaz, Concha; Jesus, Meirielly, & Vaz-Velho, Manuela (2024), "The society of Information and the European citizens' perception of climate change: natural or anthropological causes", *Environmental Management*, pp. 1–12. https://doi.org/10.1007/s00267-024-01961-x

Mifsud, Mark (2012), "Environmental education development in Malta: A contextual study of the events that have shaped the development of environmental education in Malta", *Journal of Teacher Education for Sustainability*, 14(1), pp. 52–66. https://doi.org/10.2478/v10099-012-0004-x

Moody-Marshall, Rasheda (2023), "An investigation of environmental awareness and practice among a sample of undergraduate students in Belize", *Environmental Education Research*, 29(7), pp. 911–928. https://doi.org/10.1080/13504622.2022.2079613

Morand, Serge & Lajaunie, Claire (2017), *Biodiversity and health: linking life, ecosystems and societies*, Elsevier https://doi.org/10.1016/C2015-0-05996-2

Nazarenko, Alexander V. & Kolesnik, Anna I. (2018), "Raising environmental awareness of future teachers", *International Journal of Instruction*, 11(3), pp. 63–76. https://doi.org/10.12973/iji.2018.1135a

Nunnally, Jum C. (1978), *Psychometric theory* (2nd ed.), New York, McGraw-Hill.

Özden, Mustafa (2008), "Environmental awareness and attitudes of student teachers: an empirical research", *International Research in Geographical and Environmental Education*, 17(1), pp. 40–55. https://doi.org/10.2167/irgee227.0

Padmanabhan, Jubilee; Borthakur, Aradhana, & Mittal, Kunjana (2017), "Environmental awareness among teachers and students of higher education", *Educational Quest*, 8(3), pp. 721–726.

Palita, Saharat Kumar (2016), "Climate change and its impact on biodiversity", in: *Conference: Climate Change-India and the World, the Future Course for Cooler Planet, SN College, Rajkanika, Kendrapara, Odisha, India*.

Piras, Simone; Righi, Simone; Banchelli, Federico; Giordano, Claudia, & Setti, Marco (2023), "Food waste between environmental education, peers, and family influence. Insights from primary school students in Northern Italy", *Journal of Cleaner Production*, 383, 135461, https://doi.org/10.1016/j.jclepro.2022.135461

Proudfoot, Reece & Kelley, Samuel (2017), *Can technology save the planet?*, WWF Australia. Available at: https://www.wwf.org.au/ArticleDocuments/360/pub-can-technology-save-the-planet-30may17.pdf.aspx?Embed=Y

Ren, Huiyu & Zhao, Liang (2023), "Demonstration and suggestion on the communication efficiency of new media of environmental education based on ideological and political education", *International Journal of Environmental Research and Public Health*, 20(2), 1569, https://doi.org/10.3390/ijerph20021569

Sadik, Fatma & Sadik, Semra (2014), "A study on environmental knowledge and attitudes of teacher candidates", *Procedia-Social and Behavioral Sciences*, 116, pp. 2379–2385. https://doi.org/10.1016/j.sbspro.2014.01.577

Shivanna, Kundaranahalli (2022), "Climate change and its impact on biodiversity and human welfare", *Proceedings of the Indian National Science Academy*, 88(2), pp. 160–171. https://doi.org/10.1007/s43538-022-00073-6

Statistical Office, Republic of Slovenia (2024), *Working population by occupational group and gender*. Available at: https://pxweb.stat.si/SiStatData/pxweb/sl/Data/-/0764803S.px/table/tableViewLayout2/

Tišma, Sanja; Mileusnić Škrtić, Mira; Maleković, Sanja; Jelinčić, Daniela Angelina, & Keser, Ivana (2024), "Empowering innovation: Advancing social en-

trepreneurship policies in Croatia", *Sustainability*, 16(15), 6650, https://doi.org/10.3390/su16156650

Tokar, Marian; Kumar, Hanna; Kostyrya, Inna, & Kliuchnik, Alona (2023), "Determining the Eastern European non-governmental organizations sustainability under crisis conditions and during social and technological transformations", *Transfer of Technologies: Industry, Energy, Nanotechnology*, 6(13), 126, https://doi.org/10.15587/1729-4061.2023.292932

Üstün, Belemir & Celep, Burak (2007), "The connection between environmental awareness and socio-economic and cultural structure", *WIT Transactions on Ecology and the Environment*, 102. https://doi.org/10.2495/SDP070602

Veisi, Hadi; Lacy, Michael; Mafakheri, Salah, & Razaghi, Fatemeh (2018), "Assessing environmental literacy of university students: A case study of Shahid Beheshti University in Iran", *Applied Environmental Education and Communication*, 18(9), pp. 1–18. https://doi.org/10.1080/1533015X.2018.1431163

Voulvoulis, Nikolaos & Mark A. Burgman (2019). "The contrasting roles of science and technology in environmental challenges", *Critical Reviews in Environmental Science and Technology*, 49(12), pp. 1079–1106. https://doi.org/10.1080/10643389.2019.1565519

Williams, Phoebe. C.; Beardsley, Justin; Isaacs, David; Preisz, Anne & Marais, Ben J. (2023), "The impact of climate change and biodiversity loss on the health of children: An ethical perspective", *Frontiers in Public Health*, 10, 1048317, https://doi.org/10.3389/fpubh.2022.1048317

Xu, Yi & Zhao, Fang (2023), "Impact of energy depletion, human development, and income distribution on natural resource sustainability", *Resources Policy*, 83, 103531, https://doi.org/10.1016/j.resourpol.2023.103531

KAKO BUDUĆI NASTAVNICI DOŽIVLJAVAJU OKOLIŠNE IZAZOVE SUVREMENOG DRUŠTVA

Nataša Dolenc, Ines Kovačič, Bojan Burić, Nives Kovač

U ovom istraživanju uspoređena su mišljenja o ekološkim problemima među studentima odgojnih i obrazovnih znanosti u Hrvatskoj i Sloveniji. Studenti smatraju da su klimatske promjene, onečišćenje okoliša i upravljanje otpadom ključni problemi na lokalni razini, pri čemu Hrvati posebno ističu divlja odlagališta, a Slovenci zagađenje zraka. Na globalnoj razini obje su skupine istaknule klimatske promjene, upravljanje otpadom i onečišćenje zraka. Studenti u Hrvatskoj smatraju da su plastični otpad i smanjenje biološke raznolikosti ozbiljni problemi. Obje skupine naglašavaju važnost upravljanja otpadom i neophodno uvođenje edukacije o okolišu u škole. Kao rješenja količine otpada, studenti u Sloveniji predlažu smanjenje ambalažnog otpada, dok hrvatski studenti preferiraju reciklirajuće i biorazgradive ambalaže. Primijećeni su i različiti stavovi prema

pouzdanim izvorima informacija: slovenski studenti više vjeruju institucionalnim izvorima, dok se hrvatski studenti oslanjaju na neformalne mreže. Ovo istraživanje ukazuje na potrebu za jačanjem obrazovanja o ekološkim problemima u školama kako bi se poticala odgovornost prema okolišu i osnažile buduće generacije znanjem i vještinama.

Ključne riječi: *stavovi o okolišu; ekološko ponašanje; ekološka pismenost; onečišćenje; održivo obrazovanje*