# PRO-ENVIRONMENTAL BEHAVIOUR AND SUSTAINABLE DEVELOPMENT: EVIDENCE FROM A SURVEY OF LITHUANIAN AND UKRAINIAN STUDENTS

Samanta Simonavičė, <sup>1</sup> Vira Shevchuk, <sup>2</sup> Oresta Bordun<sup>3</sup>

Klaipėda University (Lithuania), Ivan Franko National University of Lviv (Ukraine)

#### ABSTRACT

This research aims to analyse and compare students' attitudes to environmental care in Lithuania and Ukraine using the New Ecological Paradigm (NEP) scale. The study also explores gender differences in environmental attitudes among students, and evaluates these attitudes using the Index of Environmental Care Attitudes. The findings reveal similarities and differences between Lithuanian and Ukrainian students, with Lithuanian students demonstrating higher ecological knowledge and a more environmentally conscious world-view. However, Ukrainian students show positive trends in engagement with environmental education. Gender-based disparities indicate that female students consistently exhibit stronger environmentally conscious behaviour. The study highlights the potential for Ukrainian universities to enhance sustainability initiatives and capitalise on the growing environmental consciousness among students. Overall, the research paves the way for targeted interventions and improvements in fostering sustainable practices in university settings. KEY WORDS: environmental care attitudes, New Ecological Paradigm (NEP) scale, sustainability, students, gender.

JEL CODES: Q2, Q3, Q5.

DOI: https://doi.org/10.15181/rfds.v44i3.2636

#### Introduction

The 21st century presents us with a significant dilemma known as sustainable development. Across the globe, scientific communities, national governments, educational institutions and social organisations are actively deliberating the essence of this concept, and how to incorporate it into their policies, structures and functioning. In the last few decades, ecological sustainability and ecologically conscious and ecological attitudes have become increasingly popular topics in scientific literature (Brochado et al., 2017; Dobson, 2010; Štraupaitė, 2023; Simonavičė, Jeyakumar, 2023). As society faces ecological challenges and searches for solutions to the problem, environmental friendliness and ecologically conscious consumers are increasingly emphasised (Judson, 2015; MacLeod, 2021).

The function of universities as hubs for sustainable development is currently the subject of in-depth examination (Beynaghi et al., 2016; Bordun et al., 2023; Disterheft et al., 2015; Lozano et al., 2013). Universities fulfil a threefold role in the context of environmental sustainability concerning society. Firstly, they cater directly or indirectly to the needs of faculty, staff, students and the wider community. These relationships

Samanta Simonavičė – PhD student at Klaipėda University Scientific field: digitalisation and sustainability in ecological citizenship E-mail: straupaite.s@gmail.com

Vira Shevchuk PhD – associate professor of accounting and audit, Ivan Franko National University of Lviv Scientific field: accounting and analytical support for strategic management of enterprises, sustainable development, international standards of financial reporting and audit

E-mail: vira.shevchuk@lnu.edu.ua

Oresta Bordun PhD – associate professor of tourism, Ivan Franko National University of Lviv
Scientific field: tourism business planning, marketing, business etiquette in the tourism business, geography of international tourism, medical health tourism
E-mail: oresta.bordun@lnu.edu.ua

foster various activities that can impact the environment, including resource utilisation, energy consumption, transport, and waste generation. Secondly, as generators of knowledge, universities bear responsibility for educating, creating and disseminating information about environmental sustainability to stakeholders, while also advocating principles of sustainable development in society. Thirdly, as centres of learning, universities must cultivate educational opportunities that equip future generations with environmental consciousness and a sense of responsibility as global citizens (Hussain et al., 2019; Peña et al., 2018). The inclusion of environmental sustainability in academic content should not be confined solely to environmental studies, but should extend across all disciplines offered. Given their pivotal role in shaping future generations, universities should take the lead in propelling the movement for environmental sustainability, not only within their own institutions but also throughout society (Ariesanti et al., 2018).

The scientific problem addressed in this study is the varying levels of pro-environmental behaviour and sustainable development attitudes among students in Lithuania and Ukraine. This includes understanding the factors that contribute to these differences, and identifying areas for improvement to foster a more environmentally conscious mindset in university settings.

The authors aim to compare and analyse the environmental attitudes and behaviour of students in Lithuania and Ukraine, with a focus on identifying both commonalities and differences. The ultimate goal is to provide insights that can help enhance environmental education and sustainable development practices in these countries.

To achieve this aim, the following tasks have been formulated: (1) to identify differences in students' attitudes to environmental care in Lithuania and Ukraine using the New Ecological Paradigm (NEP) scale; (2) to examine students' attitudes to environmental care related to gender differences; and (3) to evaluate the attitude of Ukrainian and Lithuanian students to the problem of environmental sustainability using the Index of Environmental Care Attitudes.

Research methods: survey method, comparative analysis, statistical analysis, literature review.

# 1. Literature review

The New Environmental Paradigm (NEP) (Dunlap, Van Liere, 1978), along with the Revised New Ecological Paradigm (Revised NEP Scale, Dunlap et al., 2000; Dunlap, 2008), has been widely employed to categorise and enhance our comprehension of individuals' values, attitudes and beliefs, collectively referred to as a 'world-view', specifically in relation to the natural environment. Comprising 15 statements addressing aspects such as (1) limits to growth, (2) anti-anthropocentrism, (3) balance of nature, (4) anti-exemptionalism and (5) eco-crisis. The Revised NEP scale prompts respondents to indicate their agreement on the five-point Likert scale. The NEP scale is chosen as a tool for measuring environmental care, attitudes due to its recognised advantages, including its credibility as a data collection instrument for assessing these attitudes.

The NEP is widely utilised as a measurement tool in various countries (Shephard et al., 2009; Hosseinnezhad, 2017; Ntanos et al., 2019; Dos Reis Neto et al., 2021; Wibowo et al., 2023). Studies that use the New Ecological Paradigm (NEP) scale for cross-cultural research are also interesting, such as Schultz and Zelezny (1998). This article reports the results from a study of the relationship between values and environmental attitudes in six countries: Brazil, the Czech Republic, Germany, India, New Zealand and Russia.

The New Environmental Paradigm scale has also been used by many researchers to examine gender differences in environmental attitudes. An analysis of gender differences based on the NEP scale demonstrated to a greater extent that women are more concerned with environmental issues and have a more supportive attitude than men (Hosseinnezhad, 2017; Ntanos, 2019; Dos Reis Neto et al., 2021; Wibowo et al., 2023).

For our research, we were also inspired by articles on the use of the NEP scale to assess the pro-environmental behaviour of university students in different countries. For example, Shephard et al. (2009) aimed to assess the environmental world-view characteristics of a new group of Otago Polytechnic students. The goal was to assist academic staff in gaining insights into the sustainability interests and traits of their students. This information would enable them to tailor educational programmes that align with the students' environmental

perspectives and support their sustainability initiatives. Based on the results of Wibowo (2023), the environmental education curriculum can influence students' attitudes to environmental care. In addition, environmental activities based on participation are required to improve students' attitudes to environmental care. Dos Reis Neto (2021) proposed that the NEP scale can be used to evaluate the change in behaviour of university students when submitted to environmental education, which could also be the future direction of our research.

# 2. Methodology

# 2.1. Research design

To analyse students' pro-environmental behaviour at Ivan Franko National University of Lviv and Klaipėda schools, we conducted a survey using the New Ecological Paradigm (NEP) scale (Anderson, 2012). Our research aims to identify differences in students' attitudes to environmental care in Lithuania and Ukraine, as well as gaps in pro-environmental education which can be filled at Lviv University and Klaipėda University as centres of sustainable development. Survey techniques and questionnaires were employed as data collection tools to evaluate students' attitudes towards environmental care.

# 2.2. Sample and data collection methods

Data for this research was gathered through the administration of a questionnaire. In the study, students were presented with a set of written statements. Questionnaires were developed in Google Forms and distributed in groups of students via the Microsoft Teams environment. Participation was voluntary and confidential.

At Ivan Franko National University of Lviv, students aged 17 and 18 were chosen as research subjects. The survey was conducted in May and June 2023. In Klaipėda, students aged 17 and 18 from various schools participated in the survey, which was conducted in January and February 2023.

We specifically chose the youngest students to evaluate the university's efforts in instilling environmental awareness from the very beginning of higher education. Additionally, this approach provides an opportunity to identify gaps in pro-environmental education at the initial stage, which can be addressed in the future by Ivan Franko National University of Lviv and Klaipėda University as centres for sustainable development.

The distribution of respondents by country and gender is presented in Table 1.

	(	Total	
Lithuania	Gender	Female	145
		Male	75
		Other	7
	Total		227
Ukraine	Gender	Female	106
		Male	45
		Other	4
	Total		155
Total	Gender	Female	251
		Male	120
		Other	11
	Total		382

Table 1. The distribution of respondents by country and gender

The evaluation of attitudes toward environmental care is conducted using the five-point Likert scale: Strongly disagree; Disagree; Neither agree nor disagree; Agree; Strongly agree. To determine the level of pro-environmental behaviour of students, surveys were used which, among other things, included statements about the university's attitude to sustainability.

# 2.3. Data analysis

This study measures attitudes to environmental care based on the New Ecological Paradigm (NEP) scale (Anderson, 2012). We supplemented revised NEP statements with actual questions about students' attitudes towards ecology and the environment of the university, and received a questionnaire with 27 questions which consists of seven aspects: (1) environmental knowledge; (2) ecological world-view; (3) awareness of behavioural consequences; (4) environmental responsibility; (5) private sphere behaviour; (6) public sphere behaviour; and (7) the university's attitude to sustainability (Table 2).

Table 2. Questions for measuring attitudes on environmental care in Lithuania and Ukraine based on the New Ecological Paradigm (NEP) scale, grouped by aspect

Aspect	Question						
Environmental	All materials of ecologically certificated products are ecological						
knowledge	Travelling by train is less polluting compared with travelling by plane						
	The consumption of Lithuanian/Ukrainian apples has less environmental impact than the consumption of apples imported from Holland/Poland						
	Semi-finished products have a greater impact on the environment compared to conventional products						
	Washing dishes by hand uses more water than a dishwasher						
Ecological world-	The so-called 'ecological crisis' facing humanity is real						
view	The Earth is like a spaceship with very limited space and resources						
	The balance of nature is not sufficient to cope with the effects of modern industry						
	Only when humanity changes its behaviour will we solve environmental problems						
Awareness of	When humans interfere with nature, it often leads to disastrous consequences						
behavioural	Human behaviour has a significant impact on the environment						
consequences	My existence and behaviour are related to nature						
Environmental	My personal contribution is very important in solving environmental problems						
responsibility	Society is responsible for the implementation of environmental protection						
	Responsible and rational consumption is necessary to guarantee the well-being of future generations						
Private sphere	I save water at home						
behaviour	I turn off lights and electronic equipment when not in use						
	I sort my waste						
Public sphere	I collect information about environmental issues						
behaviour	I attend lectures/classes where environmental issues are presented						
	I participate in 'green' actions and initiatives						
	I contribute personally to the organisation of 'green' actions						
	I am a member of a 'green' organisation and participate in its activities						
The university's attitude to sustainability	During lessons teachers often talk about ecological and environmental problems						
	The university has sorting bins						
	I use a reusable drinking cup in the university						
	My university can get students involved in activities related to nature conservation						

The Mann-Whitney test was employed to detect variations in students' attitudes to environmental care between Lithuania and Ukraine, and to examine how students' gender influences their attitudes to environmental care.

H0: there is no tendency for ranks in one experimental condition to be systematically higher (or lower) than ranks in any other condition.

H1: scores in at least one experimental condition are systematically higher (or lower) than in other conditions. Quantitative data analysis was carried out using the SPSS software on a Windows platform.

#### 2.4. Research ethics

In conducting this research into pro-environmental behaviour and sustainable development among students at Ivan Franko National University of Lviv and Klaipėda schools, several ethical considerations were rigorously followed to ensure the integrity and ethical standards of the study.

Prior to their participation, all students were provided with detailed information about the purpose, procedures, potential risks and benefits of the study. The confidentiality of participants was strictly maintained. Personal identifiers were removed from the data set to ensure anonymity. Any publications or presentations of the research findings did not include any information that could identify individual participants.

The research was designed to minimise any potential harm or discomfort to participants. Questions in the survey were carefully crafted to avoid causing stress or discomfort. The study acknowledged and respected cultural differences between Lithuanian and Ukrainian students. The survey questions were adapted to be culturally appropriate and sensitive to the participants' backgrounds.

The data collection process was meticulously planned and executed to avoid any errors or misrepresentation. The analysis was conducted using appropriate statistical methods, and the results were reported in an unbiased and truthful manner.

The questionnaire adhered to principles of gender equality. Participants had the option to identify their gender beyond the binary categories of male and female, ensuring inclusivity. The sample was designed to be representative of both male and female students, allowing for meaningful generalisations and comparisons between genders. The study's design and analysis accounted for gender differences, ensuring that the findings accurately reflected the diverse perspectives and behaviours of all participants.

## 3. Results

The results presented in this section provide a comprehensive analysis of students' attitudes to environmental care in Lithuania and Ukraine, employing the New Ecological Paradigm (NEP) scale. In subsection 3.1, differences between students' attitudes in the two countries are explored, revealing noteworthy distinctions in environmental knowledge, ecological world-view, private and public sphere behaviour, and university sustainability attitudes. Subsection 3.2 delves into gender-based differences in students' attitudes to environmental care, demonstrating significant variations in responses between male and female students. Furthermore, subsection 3.3 introduces the Index of Environmental Care Attitudes as a quantitative measure, revealing higher overall scores for Lithuanian students, and emphasising the potential for Ukrainian universities, particularly Ivan Franko National University of Lviv, to enhance their focus on sustainable development.

3.1. Differences in students' attitudes to environmental care in Lithuania and Ukraine using the New Ecological Paradigm (NEP) scale

The results of the Mann-Whitney test did not show differences in the categories of questions regarding Awareness of behavioural consequences and Environmental responsibility. That is, students in both Ukraine and Lithuania are equally aware that humanity, as well as individuals, influence nature, and that society, as well as each person, is responsible for protecting the environment.

At the same time, there are partial differences in Environmental knowledge, Ecological world-view, Private sphere behaviour, and Public sphere behaviour. Regarding the university's attitudes to sustainability, the answers of students in Lithuania and Ukraine are completely different for all questions.

In order to assess whether there were differences in favour of Lithuania or Ukraine on individual issues in the survey on students' attitudes to environmental care, we constructed a diagram by average rank and countries (Fig. 1).

s È	My university can get students involved in	278,68	359,96
sity' abilií ides	I use reusable drinking cup/s in the university	327,08	246,59
University's sustainability attitudes	The university has sorting bins	325,79	249,60
ns	During les sons, teachers often talk about	280,79	355,04
rior	*I am a member of a "green" organization and	304,32	299,91
ehav	*I personally contribute to the organization of	296,43	318,38
iere b	*I participate in "green" actions and initiatives	301,39	306,76
Public s phere behavi or	I attend lectures/classes where environmental	293,27	325,80
ubli	I collect information about environmental issues	285,62	343,70
	I sort waste	323,62	254,71
Private sphere behavior	*I turn off lights or electronic equipment when		294,00
Sp.	*I save water at home		320,76
ent	*Responsible and rational consumption is		295,98
omm al nsibi	*Society is responsible for the implementation of		288,92
espol	*My personal contribution is very important in		312,83
al ces r	*My existence and behavior is related to nature		296,04
Awareness of Environment behavioral al consequences responsibility	*Human behavior has a significant impact on the		304,61
war beh onse	*When humans interfere with nature, it often		307,25
۷ 3	Only when humanity changes its behavior will we		268,73
rical riew	*The balance of nature is not sufficient to cope		299,08
Ecological worldview	Earth is like a spaceship with very limited space		264,01
д≽	*The so-called "ecological crisis" facing		303,35
	*Washing dishes by hand uses more water than a		314,27
ntal	*I turn off lights or electronic equipment when  *I save water at home  *Responsible and rational consumption is  *Society is responsible for the implementation of  *My personal contribution is very important in  *My existence and behavior is related to nature  *Human behavior has a significant impact on the  *When humans interfere with nature, it often  Only when humanity changes its behavior will we  *The balance of nature is not sufficient to cope  *The balance of nature is not sufficient to cope  *The so-called "ecological crisis" facing  *Washing di shes by hand uses more water than a  *Semi-finished products have a greater impact on  306,84  295,42  306,00  309,01  309,01  305,97  301,19  301,19  301,19  317,63  21  319,65  298,19  *Semi-finished products have a greater impact on	291,64	
Environmental knowledge	Consumption of Lithuanian/Ukrainian apples has		255,94
	Travel by train is less polluting compared with		322,73
	*All materials of ecologically certificated		296,28
	■ Ukraine ■ Lithua nia	303,67	

<sup>\*</sup> Issues where there are no differences in attitudes towards environmental problems in Lithuania and Ukraine are marked.

Figure 1. Diagram by average rating and countries according to the results of the survey on students' attitudes to environmental care in Lithuania and Ukraine

Fig. 1 highlights significant differences in responses between students in Ukraine and Lithuania. For example, Ukrainian students are more aware that train travel is less polluting than air travel, while Lithuanian students recognise the environmental benefits of consuming domestic apples over imported ones. Lithuanian students also exhibit a stronger belief in the planet's limited resources and the necessity of behavioural change to solve environmental problems, indicating a greater ecological world-view and knowledge.

In the Private sphere behaviour category, Lithuanian students lead in waste sorting practices, reflecting their country's more advanced infrastructure and regulatory framework. Ukraine faces challenges, such as infrastructure deficiencies, limited regulations and economic factors, which hinder effective waste sorting. To improve, a comprehensive approach involving government initiatives, public awareness campaigns, and private sector investment is needed. Collaborative efforts can enhance Ukraine's waste management system and bring it closer to European standards.

Conversely, more Ukrainian students attend lectures on environmental issues, and actively seek related information, showing a positive trend in environmental education. This engagement suggests that Ukrainian students are likely to adopt eco-friendly practices, contributing to sustainable living and responsible environmental stewardship. The emphasis on environmental education in Ukraine's curriculum indicates a promising trajectory for the country's future in sustainability.

Regarding the university's attitude to sustainability, Ukrainian students use fewer reusable cups and encounter fewer sorting bins in university buildings than their Lithuanian counterparts. This reflects differences in environmental awareness and infrastructure. Lithuanian students are probably more conscious of the impact of single-use items, and their schools are better equipped with waste sorting facilities.

However, Ukrainian students report more frequent discussions on ecological issues during lessons and greater involvement in nature conservation activities. This emphasis on environmental topics in Ukraine's education system is raising ecological awareness among students.

In summary, Ivan Franko National University of Lviv is actively addressing ecological concerns through an emphasis in the curriculum and student engagement. This approach fosters a more environmentally aware and active population, contributing to future sustainability and nature conservation efforts.

# 3.2. Differences in students' attitudes to environmental care related to gender

The results of the Mann-Whitney test on gender differences showed significant differences in almost all answers regarding the attitude to environmental care among female and male students. Students of different genders were unanimous only in the questions Travelling by train is less polluting compared with travelling by plane, Washing dishes by hand uses more water than a dishwasher, I sort waste, During lessons teachers often talk about ecological and environmental problems, and I use reusable drinking cups in the university. Differences in responses on students' attitude to environmental care by gender are demonstrated in Fig. 2.

As can be seen from Fig. 2, male students are behind girls in all questions in the categories Ecological world-view, Awareness of behavioural consequences, Environmental responsibility, and Public sphere behaviour. Regarding the questions where there were differences between girls and boys in the Environmental knowledge, Private sphere behaviour, and University's attitude to sustainability categories, the female gender also shows greater involvement in environmental education and environmental action, and a greater interest in saving natural resources.

The differences in responses regarding environmental attitudes and behaviour between male and female students can be attributed to several factors. These distinctions may be influenced by gender-specific societal norms, values and roles. It is possible that females are, on average, more inclined towards environmentally conscious behaviour, due to cultural expectations, personal values, or a heightened awareness of ecological issues. It should be noted that our conclusions coincide with and confirm previous studies by other scientists (Hosseinnezhad, 2017; Ntanos, 2019; dos Reis Neto et al., 2021; Wibowo et al., 2023).

s À	My university can get students involved in activities	270,69	307,19
niversity' stainabilir attitudes	*I use reusable drinking cup/s in the university	276,03	304,68
University's sustainability attitudes	The university has sorting bins	270,46	307,3
ns Sn	*During les sons, teachers often talk about ecological	296,31	295,12
vior	I am a member of a "green" organization and	275,16	305,09
behav	I personally contribute to the organization of "green"	274,72	305,30
here	I participate in "green" actions and initiatives	265,90	309,45
Public s phere behavior	I attend lectures/classes where environmental issues	258,65	312,87
Pub	I collect information about environmental issues	263,25	310,70
here	*I sort waste	282,71	301,53
vate sphe behavior	I turn off lights or electronic equipment when not in use	256,95	313,67
Priva be	I save water at home	247,56	318.10
Environmental Private sphere responsibility behavior	Responsible and rational consumption is necessary to	252,14	315.94
Environmental responsi bility	Society is responsible for the implementation of	270,32	307,37
Envii respo	My personal contribution is very important in solving	242,32	320,56
s of	My existence and behavior is related to nature	260,84	311,83
Awareness of behavioral consequences	Human behavior has a significant impact on the	264,50	310,11
Awa bel cons	When humans interfere with nature, it often leads to	260,84	311,83
	Only when humanity changes its behavior will we	265,96	309,42
gical	The balance of nature is not sufficient to cope with the	273,93	305,66
Ecological worldview	Earth is like a spaceship with very limited space and	268,24	308,35
	The so-called "ecological crisis" facing humanity is real	261,25	311,64
	*Washing dishes by hand uses more water than a	298,94	293,88
Environmental knowle dge	Semi-finished products have a greater impact on the	275,06	305,14
	Consumption of Lithuanian/Ukrainian apples has less	275,02	305,15
	*Travel by train is less polluting compared with travel	290,60	297,81
	All materials of ecologically certificated products are	271,73	306,70

■ Male ■ Female

Figure 2. Diagram by average rating and gender according to the results of the survey on students' attitudes to environmental care

3.3. Evaluation of attitudes of Ukrainian and Lithuanian students towards environmental sustainability using the Index of Environmental Care Attitudes

In order to be able to quantitatively measure the attitudes towards environmental care of students in Lithuania and Ukraine, we applied the Index of Environmental Care Attitudes.

<sup>\*</sup> Issues where there are no differences in attitude towards environmental problems according to gender.

The Index of Environmental Care Attitudes refers to a metric or measurement tool designed to assess individuals' attitudes and concerns towards environmental issues. It is a composite index that typically combines various indicators or questions relating to environmental awareness, behaviour and values. This index aims to quantify and represent the level of care or consideration an individual exhibits towards the environment. Higher scores on the Index of Environmental Care Attitudes generally indicate a more positive and environmentally conscious attitude, while lower scores may suggest less concern or awareness regarding environmental issues.

The Index of Environmental Care Attitudes is calculated by aggregating scores from various indicators or questions relating to environmental attitudes, behaviour and values. Each indicator is assigned a numerical value, and these values are summed up to produce an overall score. The Index of Environmental Care Attitudes also involves assigning weighted coefficients to individual indicators to provide a more nuanced view of environmental attitudes.

Table 3 presents the results of calculating the Index of Environmental Care Attitudes based on the New Ecological Paradigm (NEP) scale by aspect (indicators) and country (Lithuania and Ukraine).

*Table 3.* Index of Environmental Care Attitudes based on the New Ecological Paradigm (NEP) scale by aspect (indicators) and country (Lithuania and Ukraine)

Indicators	Lithuania							Ukraine						
	Frequency						_	Frequency						
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total	Index of Environmental Care Attitudes	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total	Index of Environmental Care Attitudes
Environmental knowledge	119	194	785	550	472	2120	70,02	66	107	295	242	195	905	68,69
Ecological world-view	64	79	298	573	682	1696	80,40	20	62	177	209	256	724	77,10
Awareness of behavioural consequences	37	45	223	424	543	1272	81,87	8	26	121	144	244	543	81,73
Environmental responsibility	41	53	229	427	522	1272	81,01	4	44	108	164	223	543	80,55
Private sphere behaviour	71	128	215	402	456	1272	76,42	16	56	139	177	155	543	74,70
Public sphere behaviour	670	659	483	192	116	2120	45,14	283	196	232	137	57	905	48,71
University's attitudes to sustainability	191	222	457	465	361	1696	66,88	96	78	215	185	150	724	65,94
Index of Environmental Care Attitudes							71,68							71,06

As can be seen from Table 3, the overall Index of Environmental Care Attitudes is higher for Lithuanian students. It is also higher for Lithuanian students in all categories except Public sphere behaviour. This proves that Ukrainian students are currently very interested in attending lectures where environmental issues are presented, as well as in collecting information about environmental issues.

Since the university's sustainability attitudes index at Ivan Franko National University of Lviv is lower than at Klaipėda schools, this should be an impetus for the development of the Ukrainian university as a centre for sustainable development. Moreover, the results of our study indicate a trend in increasing environmental awareness among students in Ukraine.

#### Conclusions

The analysis of students' environmental attitudes in Lithuania and Ukraine using the NEP scale reveals both similarities and notable differences. Both groups recognise the impact of human activity on nature, and share responsibility for environmental protection. However, Lithuanian students exhibit greater ecological knowledge and a more environmentally conscious world-view, particularly regarding resource limitations. They also show proactive behaviour in waste sorting and using reusable items. In contrast, Ukrainian students display positive trends in environmental education, attending lectures, and seeking information, indicating a growing ecological awareness, despite the challenges in the waste sorting infrastructure.

Gender differences reveal significant disparities in responses, with female students consistently outpacing their male counterparts in categories such as Ecological world-view, Awareness of behavioural consequences, Environmental responsibility, and Public sphere behaviour. Female students display a greater engagement in environmental education and actions, and a heightened interest in conserving natural resources. These discrepancies can be attributed to gender-specific societal norms, cultural expectations, and individual values. Influenced by these cultural and societal dynamics, females exhibit a stronger inclination towards environmentally conscious behaviour. This observation aligns with prior research findings, and underscores the role of cultural and societal influences in shaping gender-related differences in environmental attitudes. The unanimity observed in certain behaviour, such as waste sorting practices and the use of reusable drinking cups, highlights shared environmentally responsible behaviour irrespective of gender.

The Index of Environmental Care Attitudes is higher among Lithuanian students, indicating a more positive attitude overall. However, Ukrainian students show a greater interest in public sphere behaviour, such as attending environmental lectures. The lower sustainability attitudes index at Ivan Franko National University of Lviv compared to Klaipėda schools highlight an area for growth, suggesting the need for enhanced sustainability initiatives.

The study underscores the opportunity for Ukrainian universities to leverage the growing environmental consciousness among students and integrate more sustainability practices. The Index of Environmental Care Attitudes provides valuable insights for targeted interventions to improve sustainable practices in university settings in both countries.

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# APLINKOSAUGINĖ ELGSENA IR TVARUS VYSTYMASIS: LIETUVOS IR UKRAINOS MOKSLEIVIŲ APKLAUSOS DUOMENYS

Samanta Simonavičė, Vira Shevchuk, Oresta Bordun Klaipėdos universitetas (Lietuva), Ivano Franko nacionalinis universitetas Lvive (Ukraina)

#### Santrauka

Šiame tyrime nagrinėjama mokslinė problema – Lietuvos ir Ukrainos moksleivių aplinkosauginės elgsenos bei darnaus vystymosi nuostatų lygių skirtingumas. Tai apima veiksnių, lemiančių šiuos skirtumus, supratimą ir tobulintinų sričių nustatymą, siekiant ugdyti sąmoningesnį požiūrį į aplinką universitetinėje aplinkoje. Autoriai siekia palyginti bei išanalizuoti Lietuvos ir Ukrainos moksleivių aplinkosaugines nuostatas ir elgseną, daugiau dėmesio skiriant tiek bendrumams, tiek skirtumams. Straipsnio tikslas – pateikti įžvalgų, kurios padėtų gerinti aplinkosauginį švietimą ir darnaus vystymosi praktiką šiose šalyse. Siekiant šio tikslo suformuluoti šie uždaviniai: (1) nustatyti Lietuvos ir Ukrainos moksleivių požiūrio į aplinkosaugą skirtumus, taikant naujosios ekologinės paradigmos (NEP) skalę; (2) ištirti studentų požiūrį į aplinkosaugą lyčių aspektu; (3) įvertinti Ivano Franko nacionalinio Lvivo universiteto studentų ir Klaipėdos moksleivių požiūrį į aplinkos tvarumo problemą, taikant požiūrio į aplinkosaugą indeksą.

Tyrimo metodai: apklausa, lyginamoji, statistinė analizė, literatūros apžvalga. Duomenys šiam tyrimui rinkti pateikiant klausimyną. Šiame tyrime mokiniams pateikti teiginiai raštu. Požiūris į aplinkosaugą vertintas pagal penkių balų Likerto skalę. Patikslintus NEP teiginius papildę aktualiais klausimais apie studentų požiūrį į ekologiją ir universiteto aplinką, sudarėme 27-ių klausimų klausimyną, kuris apima septynis aspektus: (1) aplinkosauginės žinios; (2) ekologinė pasaulėžiūra; (3) elgesio pasekmių suvokimas; (4) atsakomybė už aplinką; (5) elgesys privačioje aplinkoje; (6) elgesys viešojoje aplinkoje ir (7) požiūris į universiteto tvarumą.

Mann-Whitney'aus testas taikytas siekiant nustatyti Lietuvos ir Ukrainos mokinių požiūrio į aplinkosaugą skirtumus bei ištirti mokinių požiūrį į aplinkosaugą lyties aspektu. Kiekybinė duomenų analizė atlikta naudojant SPSS programinę įrangą *Windows* platformoje.

Abiejų šalių mokiniai pripažįsta žmogaus veiklos poveikį gamtai ir visuotinę atsakomybę už aplinkos apsaugą. Nustatyta, kad Lietuvos mokinių ekologinės žinios geresnės, jie sąmoningesni, turint galvoje jų aplinkosauginę pasaulėžiūrą, ypač tokiais klausimais kaip išteklių ribotumas. Nors Ukrainos moksleiviams kyla atliekų rūšiavimo infrastruktūros iššūkių, aplinkosauginio švietimo tendencijos yra teigiamos, jie aktyviai lanko paskaitas ir ieško informacijos. Lyčių skirtumai atskleidžia, kad merginos, palyginti su vaikinais, labiau domisi aplinkosaugos klausimais ir yra aktyvesnės, tai lemia visuomenės normos ir kultūriniai lūkesčiai.

Aplinkosauginių nuostatų indeksas aukštesnis Lietuvos studentų, tai rodo pozityvesnį ir sąmoningesnį požiūrį į aplinkosaugą, išskyrus viešąją sritį, kur labiau įsitraukę ukrainiečių studentai. Žemesnis Nacionalinio Ivano Franko universiteto Lvive studentų požiūrio į tvarumą indeksas, palyginti su Klaipėdos moksleivių, rodo augimo potencialą puoselėjant aplinkosauginį sąmoningumą. Tyrimas pabrėžia Ukrainos universitetų galimybę skatinti tvarumo iniciatyvas, pasitelkus didėjantį studentų ekologinį sąmoningumą.

PAGRINDINIAI ŽODŽIAI: požiūris į aplinkosaugą, Naujosios ekologinės paradigmos (NEP) skalė, tvarumas, moksleiviai, lytis.

JEL CLASSIFICATION: Q2; Q3; Q5.

Received: 2024-05-10

Revised: 2024-07-04

Accepted: 2024-08-20