Selected Paper of 7th International Conference on Education (IC-ED-2018), 28-30 June 2018, BAU International Berlin University of Applied Sciences, Berlin – Germany

Impact of ecologic education and values on pupils' ecologic consciousness

Rutenis Jancius[a]*, Construction and Service Training Centre of Kaunas, LT-52364 Kaunas, Lithuania
Gintare Vaznoniene[b], Aleksandras Stulginskis University, LT-53361 Kaunas District, Lithuania
Algirdas Gavenauskas[c], Aleksandras Stulginskis University, LT-53361 Kaunas District, Lithuania
Juozas Pekarskas[d], Aleksandras Stulginskis University, LT-53361 Kaunas District, Lithuania

Suggested Citation:

Jancius, R., Vaznoniene, G., Gavenauskas, A. & Pekarskas, J. (2018). Impact of ecologic education and values on pupils' ecologic consciousness. *New Trends and Issues Proceedings on Humanities and Social Sciences.* [Online]. *5*(5), pp 49–59. Available from: www.prosoc.eu

Selection and peer review under responsibility of Prof. Dr. Milan Matijevic, University of Zagreb, Croatia

Abstract

Ecological challenges encourage thinking about the quality of education, the need to develop a person who is responsible and able to live in harmony with the environment and is distinguished by ecological competences. The purpose of the research is to identify the ecological consciousness of pupils and values of pupils, which are developed based on the 'Concept of the development of ecology and environmental technologies'. For the purpose of the research, a case study was applied, a quantitative research was carried out—the first school in Lithuania was analysed, where the concept of ecology and environmental technology development has been implemented since 2015. The research involved 11thand 12th grade pupils (*N* = 80). The results of the research were analysed using descriptive statistics, factor analysis, correlation analysis and comparison method.

Keywords: Ecologic education, pupils, values, ecologic consciousness.

* ADDRESS FOR CORRESPONDENCE: **Rutenis Jancius**, Construction and Service Training Centre of Kaunas, LT-52364 Kaunas, Lithuania.
E-mail address: rutenis.jancius@gmail.com

1. Introduction

Today's man lives in a world whose progress, destructive activities of the human himself become a regress and demands a re-contemplation of the meaning of the world in respect of a man and vice versa, the significance of a man in relation to the world. The planet is affected by the ecological crisis, which shows the path chosen by humankind leading to self-destruction. The man has to realise that nature, in which some non-stopping processes are already taking place, can show signs of recovery only by courtesy of a man. Consumer culture is one of the reasons leading to the ecological crisis as well as the above-mentioned destruction of the environment, but also of the man himself (Kuprina, Maslennikova, Lykova & Bormotova, 2015). Benedict XVI (2009) calls for a serious rethink of own style of life, which tends to hedonism and consumption, regardless of their harmful effects. When speaking of being, Professor Leonas Jovaisa states that 'A man is a changing and constant, orderly and chaotic, creative and destructive being but his behaviour is rated by nature and strictly managed by the environment of the people' (Jovaisa, 2012, p. 402). Lithuanian philosopher Antanas Maceina drew attention to the fact that 'By his action, a man had to join this natural creation, improve it, raise it to a higher degree of being and complete it' (Maceina, 1992, p. 144). The creator does not create everything, but '... allows manifestation; first of all, to the people whom he has given the ability to know, want and create' (Hoffner, 1996, p. 123). Negating the essence of own mission by his destructive activity, the man materialised the nature as a given gift and began to use it to satisfy his egoism, exploiting the wealth of the earth that are given to the man indiscriminately. Human activity determines the dramatic impact of the world, the victim of which the man can be himself (Paulius VI., 2010, p. p. 21). Ongoing activities have a huge impact on the nature, forgetting that people are dependent on it, and it becomes a threat to the existence of the humanity. Understanding and solving the challenges of ecological problems is the most important task of today's humanity (Suton & Anderson, 2010; Nasibulina, 2015).

Ecological education not only for young people but also for society as a whole is one of the tools to tackle the problems of ecological crisis. Ecologisation of public awareness due to its social significance should occupy a special place in the development of scientific knowledge. The United Nations Environment Program recognised ecological education as one of the main tools for harmonising human-nature interaction. Ecological education can be an aid to understand the scale and danger of ecological situation that has reached the critical level. Ecological consciousness is formed when one perceives the relationship between man and nature, which mediates the behaviour of the latter, and simultaneously reveals the axiological position of the object of consciousness in the world (Panov, 2013; Wolff, Sjoblom, Hofman-Bergholm & Palmberg, 2017). Ecological consciousness is also formed as a change in the nature caused by industrial activities and the need to address ecological problems is recognised as well.

Ecological challenges encourage thinking about the quality of education, the need to develop a person who is responsible and able to live in harmony with the environment and is distinguished by ecological competences. Ecological education is associated with knowledge, understanding of the relationship between different environmental systems, the perception of the influence of a human on the environment, the formation of a responsible attitude and environmental behaviour. Ecological education becomes the foundation and path to a mature person with essential ecological knowledge, abilities and values in order to preserve the nature and help him to choose the appropriate ways of activities by foreseeing the outcomes of their activities for nature. The full maturity of personality leads to the development (self-development) of personality, which includes the valuable *content* of a human—what I have to give a sense to, and the *forms*—how to give a sense and convey the change (Bieliauskiene, 2013).

The *object* of the research is the ecologic consciousness of pupils, which is influenced by the attitude of the pupils towards values and education thereof in accordance with the concept of ecology and environmental education. The *purpose of the research* of this article is to identify the ecologic consciousness of pupils and values that are developed based on the 'Concept of the development of ecology and environmental technologies'. *Research tasks* are as follows: 1) to analyse foreign and

Lithuanian research dealing with the impact of attitude towards the values on ecologic consciousness; 2) to establish values and ecologic behaviour that influence the ecologic consciousness of pupils.

2. Literature review

The ecological crisis has led to the necessity to form a new personality that has humanistic and ecological values corresponding to the needs of the present world's development (Kuprina et al., 2015). In today's consumer culture, we can achieve this through the value-based and ecologic education of a young person, realising that after we are gone, the world should be suitable for future generations as well.

We find answers to the choices of human values through education methods. S. Kanisauskas points out that 'The values in education (both theoretical and practical) are associated with the problem of the meaning of life and spirituality' (Kanisauskas, 2014, p. 196). A person being educated begins to identify himself and makes this by comparing himself with other people, who surround him. In this regard, every adult becomes a teacher to a young person by revealing his degree of responsibility with regard to the world. Professor B. Bitinas states that the basis for the purpose of education is the adoption of one or another value by another person(s) which he does(do) not recognise as personally significant (educational goals as certain good things) (Bitinas, 2004). These values are often named as spiritual, which are considered the basis of the meaning of life for a person. According to Dr. S. Kanisauskas, by virtue of these values, it is easier for a person to perceive a complicated world, and at the same time choose meaningful things (Kanisauskas, 2014). Spiritual values are not significant for all people; therefore, it is important '... that those being educated would accept the proposed values and follow them in life' (Bitinas, 2004, p. 40).

V.M. Cojocariu points out that the attitude of a teacher is revealed through the values that he adheres to and expresses both in his daily life and in his work with his pupils. 'Their role is vital because they set the pillars of the whole professional approach, regulate the relationships between the teacher and himself, the teacher and his whole work, the teacher and students, provide the foundation for classroom climate and relationships with students' families, school management and the community, imprinting a direction and significance' (Cojocariu, 2018, p. 2). Teachers play an important role in accepting the values because the attitudes and beliefs of the teachers form their behaviour (Prabawani, Hanika, Pradhanawati & Budiatmo, 2017). E. Martisauskiene notices that values are relevant for teachers because their primary professional function is '... to waken up the value relationship of the pupils with the familiar reality' (Martisauskiene, 2012, p. 74) while the teacher must have an ecological culture as the necessary condition for the education of ecological culture of the pupils (Zeleeva & Asafova, 2016). A young person, having acquired knowledge and experience, shares them in his social environment, but it is important that this would be acceptable and not harmful to the society in which he lives. According to Karoglu and his colleagues, the child acquires different values in his life in different environments, i.e., family, school, among friends, etc., which become effective to him and determine his behaviour (Karoglu, Calisandemir & Unuvar, 2017). V. P. Zeleva and her colleagues point out that values and attitudes develop in specific situations of the child that transfer the personal meaning of human development coinciding with universal values (Zeeleva & Asafova, 2016). In the ecological context, the education of pupils' responsibility based on the idea of the ecologic personality 'Homo ecological' is important, which is characterised by a moral and value-based attitude towards the nature, people, sense of responsibility and ethics to own environment and the world (Kuprina et al., 2015; Nasibulina, 2015).

Demirkan (2018) noticed that it is important for a person to realise in the early age that he has the right to live in a healthy and safe environment, and this becomes a decision on the environment-related consciousness and sensitivity in the field of education. Teachers help pupils to learn their own values and beliefs while reflecting their own values in their behaviour. Despite the primary responsibility of parents for the moral education of children, the school comes to the aid in developing social values

(Karoglu, Calisandemir & Unuvar, 2017). Teachers have developed ecologic culture and can help the pupils to form beliefs, management and co-operation in respect of nature through educational events. Attention should be drawn to the fact that ecologic-oriented education becomes a path to the personal future professional position by perceiving the responsibility for the adoption of appropriate decisions (Zeeleva & Asafova, 2016; Wolff et al., 2017).

Today, education must be aimed at making people become aware of the natural environment in which they live and use the natural resources available to them properly. It is very important that education of the person would start from early ages, i.e., in the family, and would continue at school in order to reduce ecologic problems. All this can be achieved through the active promotion of ecologic consciousness of the man and taking particular actions to protect nature (Demirkan, Erzurumlu & Kuzucu, 2018).

3. Research methods

Preparation for the implementation of the empirical research covered two stages. At first, a methodological part of the research that was intended to justify the choice of the study group and to describe the structure of the questionnaire was substantiated. The organisational part further reveals the preparation for the research and its actions, such as the process of collecting information and interviewing, the time of research, data processing methods, analysis and presentation of outcomes. In order to implement the empirical research, the above-mentioned stages of the preparation and organisation of the research were taken into account as well: 1) reasonable choice of the study group; 2) a questionnaire prepared based on the ecologic paradigm and experience of various previous scientific works, as well as data analysis methods were foreseen; 3) survey of pupils was conducted; 4) the outcomes of the research were analysed.

The case analysis was used to conduct the research: Kaunas Gymnasium of the President Valdas Adamkus was the first in Lithuania to teach the pupils based on the concept of the education of ecology and environment technologies approved by the Minister of Education and Science of the Republic of Lithuania on 16 July 2015. Scientists of the Faculty of Forestry and Ecology of the University of Aleksandras Stulginskis (ASU) participated in the preparation of the concept of ecology and environmental technologies as consultants. Even before the concept was formulated, gymnasium pupils participated in a non-formal education according to the environmental curriculum. These education classes were conducted not only by the teachers of the gymnasium but also by the scientists of ASU Faculty of Forestry and Ecology. The main objective of the concept of the development of ecology and environment technologies is 'to educate a mature personality with the essential knowledge, skills and values of ecology and environment technologies, capable of choosing independently appropriate behaviour strategies, predicting of the impact of their activities on the environment and acting actively in order to preserve the environment' (The concept of ecology and environmental technologies, Article 6).

The quantitative research, a questionnaire survey, based on closed-type questions related to the attitude of the pupils towards the values was used (the questions were adapted based on the Schwartz value questionnaire (Schwartz, 1992)) as well as the ecologic attitude and consciousness of the pupils (the questions were adapted according to F. Kaizer's general questionnaire of ecologic behaviour (Kaizer, 1998)). The outcomes of the study were analysed using descriptive statistics, factor analysis, correlation analysis and comparison method. The research was conducted in March 2018. The research involved 80 pupils (41 boys and 39 girls) of 11–12 class from the Kaunas Gymnasium of the President Valdas Adamkus. Questionnaires were submitted at the gymnasium; before the research was presented to the pupils, and they were explained how to answer the questions. The collected data were statistically processed using the IBM SPSS Statistics 20 software version. In order to evaluate the interdependence of qualitative attributes, the *Chi*-square criterion was used. In the course of the

research, ethical principles of the research were observed such as voluntarism, confidentiality and anonymity of the study objects.

4. Research results

4.1. Socio-demographic characteristics of respondents

The socio-demographic characteristics of the respondents suggest that 41 boys (51%) and 39 girls (49%) participated in the research, i.e., 80 pupils in total, of whom 37 people were 16–17 years old and 43 people were 17–18 years old. The most frequently indicated (Moda) age was 18, and the average age of respondents was 17.5, the youngest student was 16 and the eldest (high school graduates) were 19 years old. The distribution according to the classes shows that the research involved 35 eleventh class pupils and 45 twelfth class pupils.

4.2. Assessment of pupils' values and ecological consciousness

Evaluating ecological consciousness of the pupils, two related questions were presented (Table 1): do you attribute yourself to those interested in ecology and do you attribute yourself to those leading an ecological lifestyle? The said questions were considered by gender, class and age variables. When analysing the question 'Do you attribute yourself to those interested in ecology?', the data show that more girls (27) than the boys were interested in the ecology, nine of which stated that they were not interested in ecology at all or 15 who were not very interested.

Table 1. Responses of pupils about interest in ecological lifestyle and practising thereof (made by authors)

	Do you attribute yourself to those interested in ecology?				Do you attribute yourself to those leading an ecological lifestyle?			
Indicators	Absolute ly YES	More YES than NO	More NO than YES	Absolute ly NO	Absolut ely YES	More YES than NO	More NO than YES	Absolute ly NO
Gender								
Men	6	11	15	9	2	14	18	6
Women	9	18	12	0	5	21	9	4
Class								
11	7	14	9	5	4	17	11	3
12	8	15	18	4	3	18	16	7
Age (years)								
16	6	4	3	2	3	6	5	1
17	1	10	8	3	1	11	6	4
18	5	14	9	2	3	14	11	2
19	3	1	7	2	0	4	5	3

The interest in ecology according to the classes reveals that there is no significant difference between those, who are interested in ecology, but it is evident that a significant proportion of pupils, both 11th and 12th class, either are more interested in ecology or are not interested in it at all. According to the age criterion, we can see that the answers are distributed in a similar way, depending on the age, the differences are not very large. When examining the question of the practice of ecological lifestyle by gender, it is evident that boys are less likely to support such a lifestyle than girls, as well as this similarly should be also said by the distribution of pupils by classes and age.

It can be assumed that the limit between the interest/practice and noninterest/non-practice is not very significant according to all three criteria, and it is therefore should be alleged that an outbreak could occur if more related and systematic internal and external measures functioned: for example,

internal—more purposeful implementation at school or the implementation of concept of the development of ecology and environmental technologies, a closer link between pupils and teachers, more ecology-related events, where the pupils themselves would engage and participate; *external*—guest lectures/seminars/trainings, trips to watch examples of good practice, etc.

The correlation between these two questions showed a strong direct relationship ($r = 0.715$) between the pupils' perception of the ecological lifestyle and real practising. Such a relationship suggests that pupils in elder classes understand that ecological lifestyle can directly affect not only their own health but also the health of people living around them, the environment and quality of life in general, etc. However, there is still no deep awareness and the reason may be a short period when the concept of ecological and environmental technology education is applied in this school.

Before presenting the results of the survey about the distribution of pupils' values, it is necessary to make some observations in the aspect of value studies in Lithuanian schools. When analysing the value context of the quality of life in school, A. Juodaityte and Z. Zuklijiene (2007, p. 61) point out that insufficient attention is paid to the axiology-based research in Lithuania, although this is an important aspect orienting towards '<...> free social, cultural, anthropocentric context created by people through the world of value'. Understanding the importance of value education not only in everyday life but also for ecological education, the authors of this article decided to find out the attitude of the gymnasium pupils towards the values.

Various values people invoke in their lives play a very important role in society, but this is not always typical of the younger generation. Research shows that (Atkociuniene, Navasaitiene & Aleksandravicius, 2012; Goodale, 2016; Livazovic & Jukic, 2017) many social groups, including young people, have experienced a crisis of values when they do not know what to follow in their life. Therefore, respondents were asked to rate the indicated values on a 6-point scale, where 1 is the least significant and 6 is the most significant value. Characteristics of descriptive statistics show that the mean, median and most common indicators of values are similar, i.e., the pupils focus on love and health most (Table 2).

Table 2. Statistical characteristics of the assessment of pupils' values (made by authors)

	Indicators	Love	Work	Justice	Health	Money	Peace
N	Valid	78	70	57	55	63	49
	Missing	2	10	23	25	17	31
Mean		4.53	3.53	3.96	4.25	2.89	3.49
Median		5.00	3.00	4.00	5.00	3.00	4.00
Mode		6	5	5	6	1	4
Standard deviation		1.544	1.472	1.614	1.787	1.676	1.660
Variance		2.382	2.166	2.606	3.193	2.810	2.755

It is interesting to note that young people mostly and most often (Moda) allocated 6 points to health (36.4%), similarly to love—35.9%, 5 points were equally often given to work and justice, most often 4 points were given to peace as a value, 1 point was usually given to money. Unfortunately, the work (although they indicated 6 points) was only important to 7.1% of respondents. The latter observation is interesting in the sense that modern youth is more likely to seek material well-being while the results of this research indicate otherwise.

The opinion of respondents by gender on the importance of values is slightly different. If love was mentioned as a significant value by both girls and boys, only two boys and three girls allocated 6 points to work, significantly more boys allocated 6 points to justice than girls—and vice versa, 6 points were allocated by 15 girls and only five boys; the girls did not allocate 6 points to money at all. Only one boy and five girls gave six points to the peace as a value. It can be assumed that pupils of this age are more concerned with non-global values such as peace, money, work but more personal related to their experiences, problems and feeling.

The importance of pupils' values is evident in their ranking (Figure 1). In this figure, we see that over 80% of pupils rated only a small part of the values (6 out of 28) that are likely to be important to them at this stage of life when the personality is still forming, life choices and decisions about the future are being made. The five values that were considered important/very important and which received the least attention were beauty, respect to traditions, job satisfaction, economic well-being and evaluation of a person. Such a choice reflects the relatively decreasing interest of young people in traditions, and the job as a value becomes less important.
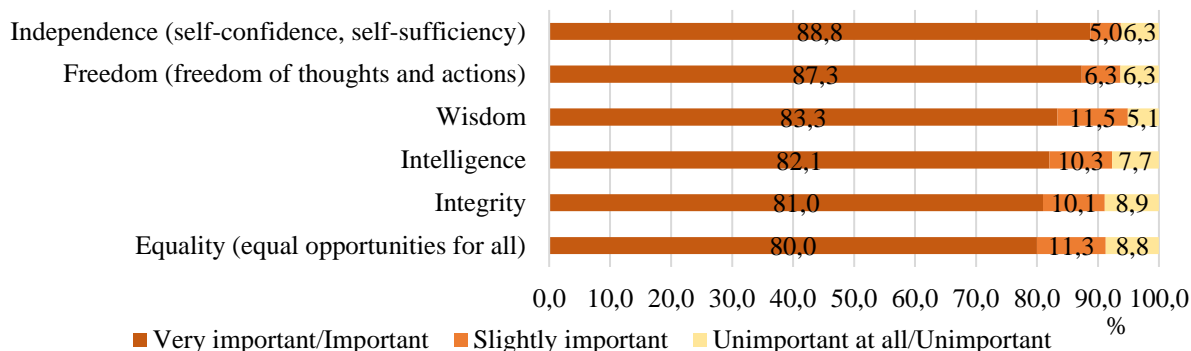

Figure 1. Rank of pupils stated values, percent (made by authors)

As the least significant values, the pupils indicated internal harmony (5%), trust, respect and wisdom (5.1%) and 6.3% for freedom (freedom of thought and action) and professionalism. It can be assumed that such assessments of young people are conditioned by their young age, living environment and yet unsettled attitude what in fact the values of life mean to them.

Since a great number of values were highlighted in the questionnaire, it was expedient to carry out a factor analysis, which helped to combine and classify all the values into the relevant groups according to the factors that bind them (Table 3).

Table 3. Classification of pupils' values by factors (results of factor analysis)

Factors	Factor weight						
	1 factor Social values	2 factor Rational values	3 factor Democratic society	4 factor Selflessness values	5 factor Moral values	6 factor Work values	7 factor Sociality values
Responsibility for others	0.865	0.049	0.140	0.116	0.231	0.071	−0.102
Economic well-being (material property0. possession of money)	0.854	0.124	0.010	0.200	0.037	0.204	0.076
Aim of the dream (help to the friends by creating own dream of life)	0.654	0.168	0.262	0.076	0.310	0.125	0.346
Trust and respect	0.611	0.162	0.330	0.304	0.450	0.016	0.061
The pursuit of good	0.609	0.174	0.048	0.396	0.297	0.086	0.317
Creativity (uniqueness of activity, thinking, imagination)	0.552	0.278	0.196	−0.240	−0.091	0.424	0.317
Intelligence	0.024	0.876	0.030	0.086	0.163	0.251	0.037
Independence (self-confidence0. self-sufficiency)	0.080	0.789	0.210	−0.076	0.211	0.251	−0.019
Wisdom	0.367	0.689	0.131	0.258	-0.186	0.222	0.164

Equality (equal opportunities for all)	0.196	0.111	0.844	0.047	0.106	0.108	0.175
Tolerance	0.118	0.114	0.632	0.316	0.301	0.416	0.047
Freedom (freedom of thoughts and actions)	0.192	0.473	0.548	0.356	0.247	0.084	−0.169
Altruism	0.283	−0.043	0.233	0.697	0.271	0.127	0.027
Empathy	0.101	0.233	0.085	0.675	0.041	0.174	0.470
Respect to parents and the elder	0.260	0.274	0.187	−0.087	0.699	0.008	0.373
Evaluation	0.171	−0.080	0.271	0.287	0.642	0.275	−0.020
Integrity	0.233	0.328	0.077	0.203	0.598	0.154	0.131
Self-discipline	0.155	0.233	0.222	0.076	0.140	0.711	0.009
Job satisfaction	−0.029	0.194	0.403	0.014	0.270	0.643	0.161
Professionalism	0.197	0.510	−0.098	0.149	0.093	0.610	−0.047
Inner harmony	0.264	0.386	−0.128	0.477	−0.125	0.561	0.025
Respect to traditions (preservation of past values)	0.054	−0.069	0.018	0.033	0.150	−0.009	0.889
Sociality	0.346	0.039	0.436	0.363	0.044	0.186	0.585

The groups highlighted with the help of the SPSS program indicate that factor 1 combines 6 values — it can be called the factor of social values, because it includes objects that help to form an attitude, including beliefs, activities, aspirations and moral norms. We called the factor 2 as rational values because it includes the human mind, which indicates that it is relevant for pupils to stimulate their minds with science. We named factor 3 as democratic values, showing that young people face the lack of democracy in their daily lives and in the environment, and thus distinguish them as values that are relevant to them. Factor 4 we called as selflessness values, which shows that helping another person as well as themselves is not alien to the pupils. With regard to empathy, the value distinguished by pupils shows that relationship of mutual communication, which is impossible if they are not trying to empathise the present situation of a person, is important to them. We provided factor 5 with a definition of moral values because it involves the aspect of human dignity. Factor 6 was identified as a factor of work values because aspects of work are involved and factor 7 was identified as sociality values that involve traditions important to a person and the sense of sociality that are primarily conveyed in families.

The values possessed by the pupils and the ones being nurtured have certain links with their ecological consciousness. Firstly, we see that the value of responsibility, which is relevant not only in their particular environment but also in respect of the world, is not alien to them, because this is the only way the pupils can seek an appropriate living environment for future generations.

The following aspect allows assuming that students foster economic well-being, the pursuit of good, creativity and other distinguished values not at an egoistic level, but by their concern in the humanity and the environment as a whole. It can also be assumed that pupils, through the knowledge of different forms of education, aim at their own wise action concerning the world.

The formation of pupils' values and their continuity are influenced not only by internal factors (i.e., their own personal experiences, empathies, attitudes to life, etc.) but also by various external factors (Figure 2). Namely, they are very important for the formation of a young person's consciousness, values and life priorities.
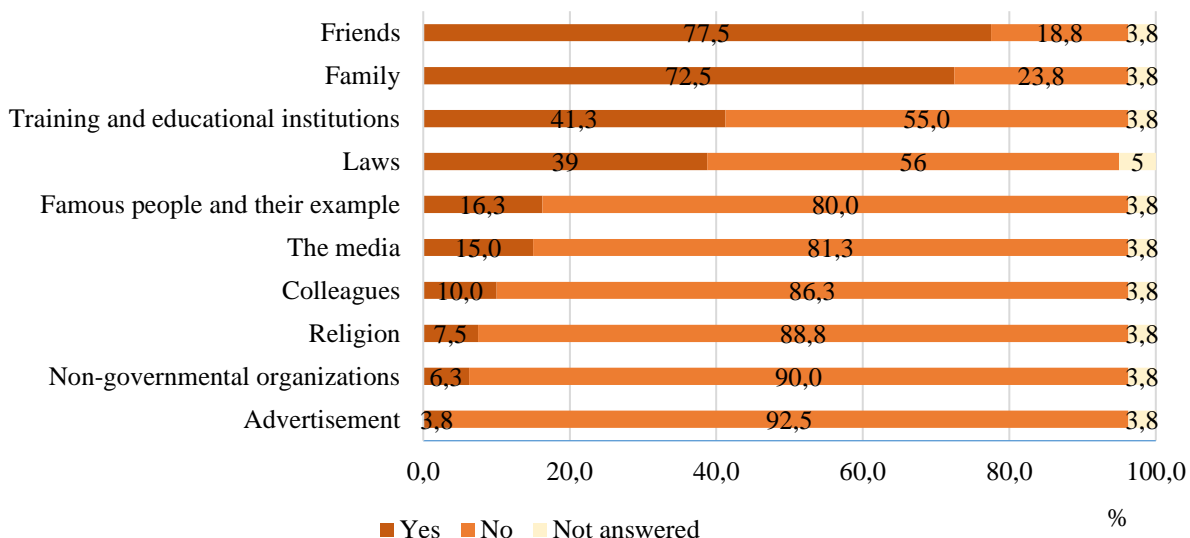
Figure 2. Pupils' opinion about what influences the formation of their values most, percent (made by authors)

The research data showed that pupils are most formed by friends, family and training and educational institutions. This can be appreciated as the environmental characters surrounding the pupils, where their interaction takes place on a daily basis. Since the age of this target group is such where the friends become the most important persons in their lives, it does not seem like a weird thing. The family is considered not only to the core of society but also it remains important to young people. In the period of the social transformation of the society, when family de-institutionalisation takes place, such assessments of pupils are very positive. The fact that training and educational institutions are the values—allows us to make dual observations. On the one hand, it can be argued that the pupils indicated this factor because they spend a lot of time there and have a close relationship with the school community. On the other hand, this may be the guarantor of security to the pupils or the main environment of their activity. The fact that an advertisement has the least impact on the pupils is both surprising and makes to evaluate this fact positively. It is surprising that modern youth spend a lot of time in various media, social networks, where they can see many different advertisements. However, it is positive that perhaps this advertisement is not so important in the formulation and choices of values. I want to highlight the aspect of religion that is not deniable to the formation of values, but the pupils revealed that religion is one of the smallest aspects for the nurture of values. This thereby leads to the conclusion that, with regard to environmental and ecological consciousness, religion is becoming less influencing, despite the importance of strong documents of the Pope and Church scholars' works on the importance of preserving the world, which depends on the good activities of a man.

Another question on the choices and intentions of pupils that could directly affect their ecological consciousness and behaviour in the future was also related to the latter questions. The pupils were asked to indicate how they assess each of the following statements (Figure 3).
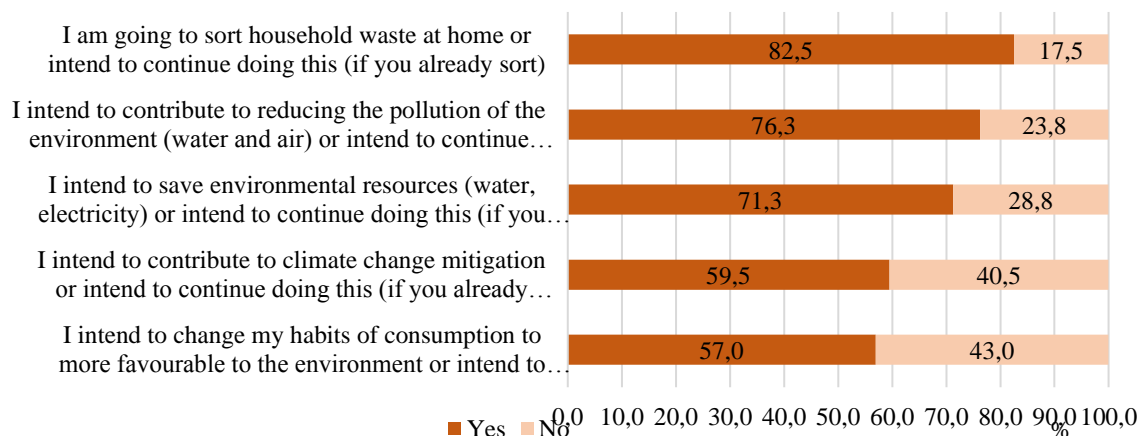
Figure 3. Pupils' opinion on their intentions relating to ecological behaviour, percent (made by authors)

The data in the figure suggest that even over 80% of pupils agreed that they intend to sort household waste at home or are planning to continue doing so. It is likely that this attitude of pupils is being developed not only in families but also by the successfully implemented concepts of education of ecology and environmental technology since the school was mentioned as one of the three key factors forming the values and ecological consciousness. On the other hand, other answers to this question show that over 50% of pupils sustain various ecology-related activities, which shows their positive attitude to stick to nature- and climate-friendly behaviour. It can also be assumed that by their present ecological behaviour, these pupils can become a model both in the family as well as for their friends who have not decided to live more environmentally friendly yet.

5. Conclusions

The research results showed that pupils rather feel the importance of ecologic consciousness, but they have not realised this yet. Mostly, the pupils focus on values such as love and health that are personal, related to their experiences, problems and well-being. However, the universal values were not indicated by the pupils as very significant.

The research results in relation to the values allow assuming that the spiritual values are not alien to the pupils and the material ones are not classified as priority. The outcomes also suggest that the values relevant to their personal emotional experiences and emerging problems are important to the pupils in the context of values. In the aspect of attitudes towards the values, it is also observed that evaluations of pupils regarding the least valued values (inner harmony, trust and respect, wisdom) can be determined by the living environment and the well-established attitude to the true values in life. Factor analysis revealed seven factors that showed that attitudes of the pupils towards the values, which are educated at school, contribute to the ecological consciousness of pupils: the values that are attributed to responsibility, the pursuit of good and creativity allow assuming that pupils are concerned not only with the environment they live in but also with the world, which makes think not only about self but also about appropriate conditions for the future generations.

The obtained results on the influence of formation of the values allow assuming that external factors (friends, family and school) are of great importance for the pupils' consciousness, the orientation of values and life priorities.

References

Atkociunienu, V., Navasaitiene, S. & Aleksandravicius, A. (2012). Jaunimo vertybines nuostatos, poreikiai ir ju tenkinimo galimybes: Sakiu rajono atvejis. *Management Theory and Studies for Rural Business and Infrastructure Development*, 3(32), 5–14.

Benedict XVI. (2009). *Enciklika Caritas in veritate*. Vilnius, Lithuania: VsI Kataliku interneto tarnyba.

Bieliauskiene, R. A. (2013). Visybiska asmenybe ir jos vieta sociume. *Logos, 77*, 147–158.

Bitinas, B. (2004). *Hodogetika. Auklėjimo teorija ir technologija.* Vilnius, Lithuania: Leidykla UAB 'Kronta.'

Cojocuriu, V. M. (2018). Some complementary perspectives in understanding the axiological universe of teachers. *New Trends and Issues Proceedings on Humanities and Social Sciences, 5*(1), 1–8.

Cekanavicius, V. & Murauskas, G. (2006). *Statistika ir jos taikymai*. I, II dalys. Vilnius, Lithuania: TEV.

Demirkan, G. C., Erzurumlu, G. S. & Kuzucu, E. (2018). The study on determining environment and nature awareness of pre-school students and mentally disabled in Nigde province: art therap. *New Trends and Issues Proceedings on Humanities and Social Sciences*, *5*(1), 83–89.

Goodale, M. (2016). Human values and moral exclusion. *Ethics & Global Politics, 9*(1), 32957. doi: 10.3402/egp.v9.32957

Hoffner, J. (1996). *Krikscioniskasis socialinis mokymas*. Vilnius, Lithuania: Aidai.

Jovaisa, L. (2012). *Edukologija* (II T.). Vilnius, Lithuania: Agora.

Juodaityte, A. & Zuklijiene, Z. (2007). Siuolaikines mokyklos gyvenimo kokybes vertybinis kontekstas (empirinis tyrimas). *Mokytoju ugdymas, 8*, 60–76.

Kaizer, F. G. (1998). A general measure of ecological behavior. *Journal of Applied Social Psychology, 28*, (5), 395–422.

Kanisauskas, S. (2014). *Aksiologijos ivadas: vadovelis*. Vilnius, Lithuania: Mykolo Riomerio universitetas.

Karoglu, H., Calisandemir, F. & Unuvar, P. (2017). Values in preschool education. *New Trends and Issues Proceedings on Humanities and Social Sciences, 4*(6), 9–97.

Kuprina, N., Maslennikova, S., Lykova, T. & Bormotova, O. (2015). Moral and Ecological Function of Students' Upbringing. *Procedia–Social and Behavioral Sciences, 214*, 135–142.

Lietuvos Respublikos Svietimo ir mokslo ministras. (2015). *Isakymas del ekologijos ir aplinkos technologiju ugdymo sampratos tvirtinimo* (Nr. V-379), Vilnius, Lithuania.

Livazovic, G. & Jukic, R. (2017). Adolescent values and risk behavior: predicting developmental paths in youth. *SGEM2017 Conference Proceedings*, 4, 3–10.

Maceina, A. (1992). *Rastai* (II T.). Kaunas, Lithuania.

Martisauskiene, E. (2012). Mokytoju vertybines orientacijos kaip ju menines individualybes formavimosi veiksnys. *Acta pedagogica Vilnensia, 28*, 73–82.

Nasibulina, A. (2015). Education for sustainable development and environmental ethics. *Procedia–Social and Behavioral Sciences, 214*, 1077–1082.

Panov, V. I. (2013). Ecological thinking, consciousness, responsibility. *Procedia–Social and Behavioral Sciences, 86*, 379–383.

Paulius VI. (2010). Enciklika *Populorum progressio.* Vilnius, Lithuania: VsI Kataliku internet tarnyba.

Prabawani, B., Hanika, I. M, Pradhanawati, A. & Budiatmo, A. (2017). Primary schools eco-friendly education in the frame of education for sustainable development. *International Journal of Environmental & Science Education, 12*(4), 607–616.

Pukenas, K. (2009). *Kokybiniu duomenu analize SPSS programa: mokomoji knyga.* Kaunas, Lithuania: Lietuvos kūno kultūros akademija.

Schwartz, Sh. (1992). Universals in the content and structure of values: theoretical advances and empirical tests in 20 countries. *Advances in experimental social psychology,* 25, 1–65.

Suton, M. O. & Anderson, E. N. (2010). *Introduction to cultural ecology*. Lanham, MD: Rowman & littlefield publishers.

Wolff, L. A., Sjoblom, P., Hofman-Bergholm, M. & Palmberg, I. (2017). High performance education fails in Sustainability?—a reflection on finnish primary teacher education. *Education Sciences,* 7, 32. doi:10.3390/educsci7010032.

Zeleeva, V. P. & Asafova, E. V. (2016). Transcommunicative model of development of ecological culture of the participants of the educational process. *Iejme—Mathematics Education, 11*(4), 549–558.