



The Examination of the Environmental Attitudes Among the Students in Szigetköz

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ABSTRACT

Szigetköz is Hungary's largest island, a special region of Europe, with natural and cultural values, national park and nature park areas, which was significantly influenced and is still threatened by the construction of the Bős hydroelectric power plant and the diversion of the Danube. (Guti 2022, Smith et al. 2002) The neighbouring Csallóköz has significant and untapped touristic potential. The vulnerability of environmental elements, the effects caused by anthropogenic activities, and the synergism of these effects must be treated as a matter of priority, so that the people who live there, as well as those who visit it, learn about the functioning of the landscape unit, identify its outstanding importance, and become more sensitive to the processes taking place in nature and the environment. One of the most effective ways of shaping awareness is experience-based and activity-oriented educational work linked to direct experience. (Mónus, 2020)

Within the framework of the INSULA MAGNA project, the sustainability pedagogy research group of our faculty planned and implemented a complex investigation. The aim of our research is to plan our attitude formation actions, our forest school program, as well as the training and further training of teachers based on the situation analysis, with which we can improve the environmental attitudes of the students in Szigetköz. With the complex investigation we carried out, on the one hand we wanted to explore the environmental awareness of schoolchildren living and studying in the region. On the other hand, by examining the pedagogical programs of the schools and by structured written interviews prepared for the headteachers, we wanted to map the sustainability - pedagogical practices of the institutions and their emerging needs. (Boncz, 2015)

Keywords: environmental pedagogy, education, sustainability, attitude

Szakosztály: Környezetpedagógiai szakosztály

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1. INTRODUCTION

One of the regions of our country, Szigetköz, is almost unique in Europe in terms of its natural values, diversity and exposure to environmental effects. Its territory represents a particularly important environmental and cultural value among the national regional units. Because of the vulnerability of the environmental elements, the effects caused by anthropogenic activities and the synergy of these impressions, priority should be given to the people who live there and those who visit it to learn about the functioning of the landscape, to identify its outstanding importance, and to become more sensitive to the processes taking place in nature and the environment. One of the most effective ways to raise awareness is experience-based and activity-oriented educational work linked to direct experiences (Mónus 2020).

One of the most important principles of international and national strategies and documents dealing with sustainability is that the environment and education affect every single person. Environment, in this sense, means the natural, artificial (created) and social environment in a complex way. These- and the questions related to them- are inseparable from each other. The improvement of one of them usually requires and goes hand in hand with the improvement of the others. Education does not only mean institutional education, but also a process of permanent knowledge transfer and attitude formation. The goal of environmental education is forming environmental awareness and consciousness. This also means the improvement of the

social environment. Without it neither meaningful change can be imagined today, nor can there be a sustainable life (Gyulai 2011).

Place identity primarily means a personal relationship between an individual and a place. Satisfying the psychological need for security plays an important role in the formation of attachment. At the same time, the development of the sense of security does not explain the development of place attachment, because it does not consider the positive emotional attachments that provide temporal continuity, for example, to our childhood home, or to places that are connected by experiences to living or deceased persons. The places preserve the important events connected to the place and remind the individual of the experiences lived there, thereby giving the opportunity to compare the events of the present and the past. Place identity is of prime importance in the lives of individuals because it provides them with security, temporal and spatial continuity (Scannell – Giffort 2010).

A number of tasks need to be completed in order to shape attitudes and carry out community-based, sustainable Szigetköz activities. The measurement of the environmental attitudes of the different age groups, the examination of their sustainability-related knowledge, habits, and emotional attitudes, which can be used to determine what kind of existing knowledge can be used to plan attitude formation.

Our survey had two target groups. We primarily approached the principals and students of schools in Győr and Szigetköz with our questions. The purpose of the questionnaire survey was to get a complex picture of the schools' environmental education practice and activity system. In our research, we also examined the school's environmental characteristics, and we also mapped the programs and learning contents related to Szigetköz. In this study, we would like to present some of the results of the students' questionnaires.

2. CHARACTERISTICS OF SZIGETKÖZ

The Szigetköz region is located in the north-western corner of Hungary in the Győr basin. The area bounded by the Danube to the north, the Lajta to the west, and the Mosoni-Danube to the west and south. This is Hungary's largest "island", with an area of 375 km².

The region is moderately cool (NW part) and moderately warm (SE part). The whole area can be said to have a dry climate.

Szigetköz is bordered from the north by the Danube, about 57.6 kilometres long. The southern border of the island is the Mosoni-Danube. According to the EU directive, the chemical and ecological status of the two bordering rivers is good. The landscape is considered highly endangered in terms of natural hazards due to floods, inland waters and drought.

The soil-forming rocks of the region are typically sandy-muddy cast formations deposited by the Danube. They are characterized by a light mechanical composition and carbonate character. Most of the forest cover consists of softwood and hardwood groves. The higher areas are characterized by hardwood (oak-elm-ash) groves, and in some places with scotch and pedunculate oaks.

One of the specialties of its fauna is the northern vole (*Microtus oeconomus*). Butterflies are represented by 1124 species. The 206 bird species, observed in Szigetköz, are 57% of the domestic bird fauna.

The area of Szigetköz is an extremely important wetland, where the former natural conditions have changed as a result of various natural processes and human interventions.

In Szigetköz, created by water, the lives of the settled people have always been determined by the Danube. At the beginning, the population settling here tried to adapt to the water cycle. In Szigetköz, the ancient bread-giving occupations were largely connected to water. Among these, fishing was prominent, which was practiced by many people in every settlement. As time progressed, farming has become more and more important, since the safety of growing crops

on fertile soils has increased. Szigetköz was quickly transformed with the spread of arable farming and the decline of grazing livestock.

The Szigetköz region borders Slovakia and Austria. The region is crossed by major NE-E main traffic roads, cycle paths and waterways. The larger settlements of Szigetköz are Győr and Mosonmagyaróvár, but Vienna and Bratislava are also nearby. The Szigetköz villages form a smaller, isolated community, from which, most of the residents, commute to the big cities or abroad. The cohesion between the settlements is strong, and cooperation is important for them. Szigetköz covers the entire administrative area of 27 settlements (Guti 2020).

3. INSULA MAGNA PROJECT

The Insula Magna - Complex Water Management and Sustainable Development Programme aims to prepare planning, IT and monitoring developments related to water management and climate change impacts in Szigetköz.

The project focuses on the development of a long-term and multi-faceted development concept that will enable the Szigetköz-Csallóköz region to become a cross-border, sustainable and exemplary development area in Europe. This is to be achieved in the longer term by developing Szigetköz using innovative methods and nature-based solutions based on the principles of sustainable development.

The backbone of the project is the restoration of the floodplain, which also includes the long-term, complex development of Szigetköz by adapting the UN Sustainable Development Goals 2030 (17 SDGs) locally. The project will establish models, methodologies, data collection and monitoring systems, and decision support systems. These will provide the knowledge needed to underpin medium- and long-term development plans to adapt to climate change and protect natural resources. The knowledge base will be increased through education and awareness-raising linked to the results.

Within the thematic areas, 18 work packages (WP) have been developed to ensure transparent project management. One of the work packages (WP7) focuses on social awareness.

Raising social awareness is a key element of sustainability projects in order to apply the topic and results in local communities with success.

The expected outcomes of this work package are:

- Developing a Digital Environmental Information Repository

The purpose of the Digital Environmental Information Repository Development project is to map the natural and environmental values and traditions of the Szigetköz-Csallóköz region and develop a concept for a digital information repository. The resulting database will be freely searchable and will also provides a good opportunity to attract the attention and raise awareness of stakeholders.

- Shaping mindset in order to create a community-based, sustainable Szigetköz-Csallóköz region includes:

- measuring the environmental attitude, sustainability-related knowledge, habits, and emotions of different age groups.
- focusing on the thematic areas of the Insula Magna project to identify what existing knowledge can be used as a basis for designing attitude formation.

The purpose of the preparatory phase is to plan and organize the research process, identify the participants to be involved, and select research tools and methods.

This is followed by conducting the research, evaluating and publishing the results.

After that, the results will be disseminated in the forms of scientific publications, conference presentations and thematic lectures. In addition, a series of interactive thematic attitude-shaping programs should be developed for local authorities, as well as creative and playful activities should be planned for children.

- Designing and organising nature-based, sustainable education and training activities

During the development of the concept of sustainable, close-to-nature educational activities - in this project - we focused on the development of a complex forest pedagogy program of a Szigetköz forest school and the implementation of an attitude-shaping and awareness raising campaign. The main themes of the forest education programme to be developed will be biodiversity, water conservation and use, water management, drinking water and wastewater, agriculture and forestry, nature and environmental protection, sustainability, regional traditions and cultural heritage.

4. OUR RESEARCH

The aim of the complex investigation we carried out was to examine the environmental awareness of school children living and studying in the region, and by examining the schools' pedagogical programs as well as by interviewing the headteachers in writing, we wanted to map the sustainability pedagogical practices of the institutions and the emerging needs. The purpose of the research was to plan our attitude formation actions, our forest school program, teacher training, and further training of teachers based on a situation analysis. We formulated hypotheses that focused on the pedagogical practice of the institutions we examined, as well as the students' knowledge, behaviour, and emotions. This paper focuses on the students. Our hypotheses relating to this area were as follows:

H4: The surveyed students basically think with an environmentally conscious approach, which is also reflected in their actions and behaviour.

H5: We assume that the activities taking place in Szigetköz, do not appear in school education, in the programs organized by schools.

H6: The students' knowledge about Szigetköz is not extensive, it definitely needs to be expanded for the purpose of developing local identity.

4.1. THE STUDENTS' QUESTIONNAIRES

The purpose of the questionnaire survey was to reveal the relationship and attitudes towards nature of the children living in Szigetköz. We wanted to map what programs and events the students had ever participated in Szigetköz. We aimed to explore the children's knowledge, impressions and local identity in connection with Szigetköz.

4.2. SOME RESULTS OF OUR RESEARCH

We would like to introduce the results of the questionnaire survey prepared for the learners. Our questionnaire was filled in by 654 students, aged 9-16. More than a half of them live in towns.

We asked the students about the awards their school has. Based on their answers, we found that children are not aware of the titles or awards their schools have, which the schools as well as they themselves can be proud of. However, for children, school is one of the most important elements in developing community belonging, local identity, and loyalty, as the scene of secondary socialization.

From the results of the question, examining the provision of schools with tools such as bird feeders, flower gardens, bee shelters, birdhouses and selective waste containers, we found that children do not know whether their school has any of these. However, these tools could provide an excellent opportunity to strengthen environmental awareness and positive attitudes.

Regarding extracurricular activities, mainly traditional activities appear in the schools' everyday practice. Among the answers, different study circles and competitions, the celebration

of significant green days and study trips were mentioned. At the same time, camps for environmental protection, participation in the Week of Forests program, and the Theme week on sustainability, are not really popular at schools, so they do not appear in students' environmental education.

We would also like to know whether any teaching-learning material related to Szigetköz appears in lessons or in extracurricular activities. The results show that such content is not widely available in subjects. Children either do not learn about Szigetköz, or do not remember learning about it, which may also indicate that the knowledge was not permanent.

We also wanted to find out which subjects contributed to the expansion of students' knowledge about Szigetköz. According to their answers, students heard about Szigetköz, mainly in the lessons of Environmental Studies or Science, Civilisation and Music lessons. All of this points to the lack of integration between subjects.

Our next question concerned whether the students, in Szigetköz, took part in any environmental, culture historical or leisure time programmes. Most of them remember the scientific educational paths, class trips and bike tours. A cultural program, like a visit to a castle or a museum, either does not appear in the offer or is not remembered by the students. The number of scientific water tests and field trips is very low.

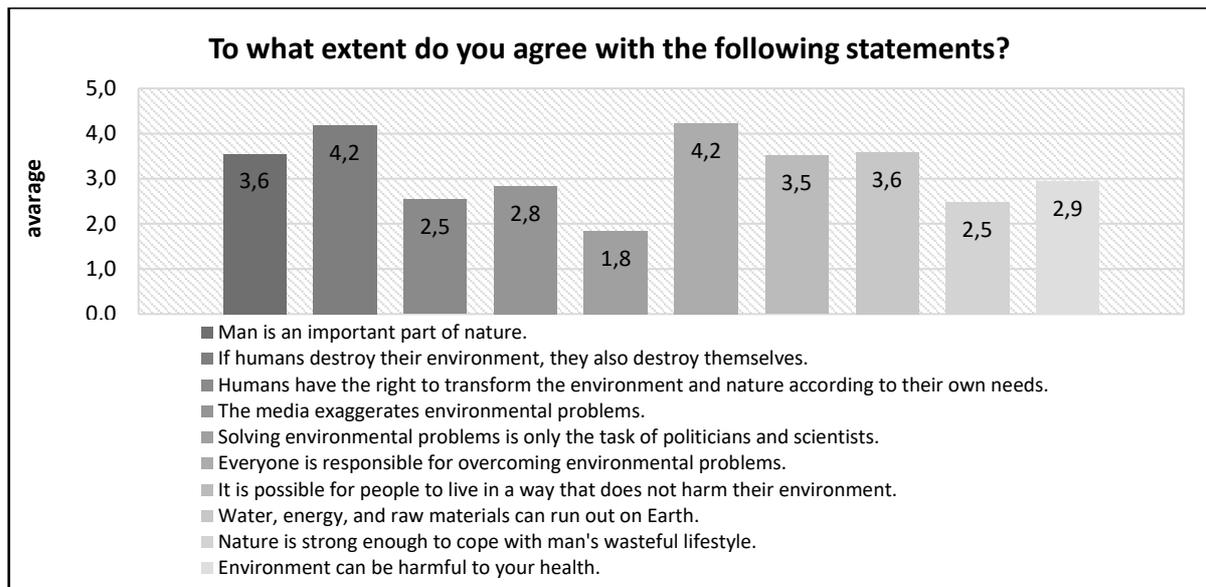
Field trips and fieldwork provide students with real-life experiences and offer them the opportunity to make direct observations, research, experiments and collect data about nature in nature by a multisensory learning experience. Students who take part in field trips can become more tolerant and can feel more empathy towards nature and their environment.

The purpose of forest schools is to develop children's physical and mental health, establish positive feelings and attitude towards their environment, improve emotional intelligence and social competences. The forest, as a special learning environment, provides an opportunity to get to know, love and respect nature through own experiences. In forest schools, sustainability education and the formation of environmental awareness are realized through activities and experience-based education (Kováts-Németh 2010). Forest schools contribute to self-development, self-reflection, problem solving, critical and creative thinking.

“The protection and promotion of cultural and natural diversity are major challenges of the twenty-first century. In this respect, museums and collections constitute primary means by which tangible and intangible testimonies of nature and human cultures are safeguarded. Museums as spaces for cultural transmission, intercultural dialogue, learning, discussion and training, also play an important role in education (formal, informal, and lifelong learning), social cohesion and sustainable development. Museums have great potential to raise public awareness of the value of cultural and natural heritage and of the responsibility of all citizens to contribute to their care and transmission” (McGhie 2019:29).

In the next part of our questionnaire, children had to decide to what extent they agree with the listed statements. (Figure 1)

Figure 1: Man, and environment



Based on the results, we can conclude that children consider people to be an important part of nature, and for the majority of them it is also clear that people endanger their own existence by destroying the environment.

That is why, although strategies related to environmental protection and various environmental policy decisions are important, we all have to do something to overcome environmental problems, alongside politicians and environmental protection experts. Although it would be much more important to prevent environmental damage than to fight against existing problems. For this reason, it is important that children believe that we can live a life that does not harm our environment. The responding students also see clearly that the Earth's supply of raw materials is a finite system, so it cannot cope with the wasteful lifestyles of humans. That is why people have to be careful when they want to transform nature according to their own needs. Despite all this, it is not clear to children that there is a very close connection between our environment and our health and that the environment can damage human health. We can be healthy in a healthy environment, but a sick environment unfortunately also makes us sick.

5. EVALUATION OF HYPOTHESES

H4: Based on the answers, we can conclude that the students basically have an environmentally conscious attitude and in their everyday life they try to protect their environment. They collect waste selectively, they prefer walking and cycling for shorter distances and they don't waste energy or water as they switch off electric appliances when they don't use them and mainly have a shower. Our first hypothesis was confirmed.

H5: The assumption was also confirmed. While Szigetköz offers a lot of environmental, culture historical and cultural programmes and free time activities that can be implemented in teaching - learning procedures as well as environmental education, schools in Szigetköz do not, or use this opportunity only to a limited extent, based on the students' answers.

H6: According to the answers, teaching materials about Szigetköz do not even appear in the curriculum and teaching-learning materials of the surveyed schools or are not memorable enough. Students can learn about Szigetköz only in some lessons, so the complexity and cross curricular approach does not appear in everyday pedagogical practice. This hypothesis was confirmed.

6. SUMMARY

The family, as the primary socialization environment, can create positive attitudes towards ourselves, our peers and the environment by providing role models and exemplary behaviour. The primary task of public education institutions is to contribute to the foundation and formation of environmental and health awareness with the tools of knowledge transfer, the development of skills, abilities, attitudes, and ways of thinking. This results in the acquired knowledge becoming an integral part of individuals' behaviour and enabling them to shape their way of life by making responsible decisions in harmony with the natural and social environment. Education must be experiential, life-like, activity-oriented, and system-oriented. Opportunities outside the classroom, which can be provided by museums, forest schools, scientific educational paths, field exercises, and school gardens, contribute to the realization of these goals. The operation of the eco-school system, the organization of competitions, quizzes, talent management programs, theme weeks, and campaigns are essential. Attention must be paid to the exploration, care, preservation and restoration of local natural and environmental values. An important task is the preparation and dissemination of various professional and methodological materials, as well as the development and promotion of good practices. The members of the local communities must also be involved, as parents or local authorities and municipalities can play a prominent role in attitude-shaping activities, in providing cultural samples, in the formation and development of local identity.

According to the results of our research we can state that although efforts are being made to develop students' environmental awareness as well as their positive and accepting attitudes towards the environment, there are still areas that can be exploited and developed.

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