

SUSTAINABLE DEVELOPMENT FROM THE PERSPECTIVE OF GEOGRAPHY EDUCATION

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Abstract

For several years, many secondary vocational schools in Zadar County, especially Hospitality-touristic and catering school in Zadar have been involved in different extracurricular activities. By participating in GLOBE and Eco school programmes in particular, the school combines professional knowledge and skills. Past projects include: energy efficiency in the school building, rural tourism development in Zadar County, school gardening of autochthonous plants, urban parks evaluation resulting in publication of a guide on town parks in all six languages that are being taught in the school, etc. Mentioned activities involved around 100 students of different age and around 15 teachers among whom also Geography teachers. The aim of this paper is to point to the possibilities of geography education for sustainable development. The paper is based on results of research conducted in February 2016 and January 2017.

Keywords: sustainable development, geography education, vocational school

1. INTRODUCTION

In the Croatian school system, Geography is a general education subject that is formally taught from the 5th to the 8th grade of elementary schools, so during all four higher grades. Still, some of geographic terms and content is present in the elementary school program from grade one, within the subject called Nature and Society. Unlike elementary school programmes, high school programmes include geographic content in their curricula in a different way. Considering the structure of high school education in Croatia, there are comprehensive schools, vocational schools and arts schools. In comprehensive school programmes, geography is a general education subject usually taught throughout all four years of education. In some, new comprehensive school programmes, so-called vocational comprehensive schools, although there are differences, geography is also usually taught throughout all four years of education.

In vocational schools, regardless of the programme and vocation, geography is a part of general education subjects, it is prevalently taught for two years, and includes general and

national geography content. However, in various vocational schools, the content and the duration differs. Namely, along with general geographic content, programmes also foresee special geographic content such as tourist geography (in touristic schools), transport geography (in maritime and technical schools), economic geography (in economic schools). Thereat, the duration of geography teaching differs. While, for example, in economic programmes, geography is taught throughout all four years, in touristic programmes, depending on the vocation, it is taught for two and three years, in transport programmes for two years, etc. However, there are high school programmes with no geography as subject, mostly those that last three years and vocations for which geography is considered irrelevant, such as programmes for the field of agriculture and nutrition or the programme for the vocation chef.

2. SUSTAINABLE DEVELOPMENT CONCEPT IN EDUCATIONAL PROGRAMMES

Already since Agenda 21, the concept and the idea of sustainable development has included education and teaching. One of important aspects of modern education is education for sustainable development. Teaching and leading in direction of sustainability we should accept as cluster of activities that produces developing ideas, decisions and practise (Bušljeta Tonković, 2015).

One of the basic requirements of the future society is necessity for children to have access to appropriate secondary education incorporating the concepts of environmental awareness and sustainable development throughout the curricula, to expand vocational training, implementing innovative methods aimed at increasing practical skills, such as environmental scouting and education for environmental and developmental responsibility. Key issues of sustainable development education should be introduced in curriculum so to achieve necessary skills and knowledge (Husanović-Pejnović, 2011). It is no less of importance to mobilize communities through schools for environmental issues (Agenda 21, 1992).

The development of the sustainable development concept depends on educated and motivated individuals that can acquire and develop a correct relationship and responsibility toward consumption, nature and natural balance, toward natural resources through education, thereat looking for different creative possibilities. If we consider sustainable development as the process of advancing the quality of human life that takes place within the so-called capacities of sustainable eco-systems, then it is important to develop sustainable lifestyle, including considerations about how we live, what we buy, what we use and how we organize everyday life, for advancing the quality of human life. Sustainable lifestyle implies the transformation of the society toward maintaining the balance of society and nature (overall).

Educational systems can actively contribute to education for sustainable development. There are numerous individual examples showing how it is possible and how much it is necessary to act within the schooling system to update the curriculum on the one hand, and to update the methodology of education on the other hand. It is necessary and desirable to involve it in various content during education, to consider it through all sustainability components: ecological, economic, technological and socio-cultural.

In the Croatian educational system, most of school programmes were adopted some twenty years ago. Since a complete curricular reform is necessary, which is obviously a long and demanding process, novelties are necessary and desirable that cannot wait for formal changes. Disregarding the fact that the Croatian educational system partly falls behind in regards of implementing the sustainability idea in its curriculum (Brkić-Vejmelka et al. 2016), and since Croatia started relatively late with the educational process that shall include sustainable development as its goal (Matutinović, 1998), there is no obstacle to introduce

(even before formal changes) contents and methods that would make this concept more familiar and introduce it within present framework curricula. Namely, in respect of the UNESCO's *Implementation Project of United Nations' Decade of Education for Sustainable Development (2005-2015)*, in which resolution the need of integrating sustainable development, its values and practice in all forms of education and teaching is emphasized, many different projects were realised. In document *Europe 2020 Strategy for smart, sustainable and inclusive growth* one of the main goal and priority is smart growth which means more efficient investment in education, also better matching labour supply and demand, which is adopted to schools and educators. From 2009 to 2014, in the organization of the (Croatian) National Agency for Education (AZOO) a larger number of assemblies, meetings and workshops intended for grade 1 to 4 teachers, and teachers of various subjects, but also vocational teachers and principals of many Croatian elementary and high schools were held. The goal was to direct attention to the current topic of sustainable development and to inspire considerations about the manner of implementing the idea within existing programmes. After held modules, numerous ideas developed for (future) school projects that correspond to the sustainability. So far, the gap between old and new knowledge, old and new methods of teaching, acquired and necessary skills, and new available teaching tools, has been avoided by including individual teachers in different activities and additional, extracurricular programmes. *United Nations Economic Commission for Europe* in its Strategy for education for sustainable development (2005) also emphasizes that education, as a human right and tool for good management, decision making and promoting democracy, can help implement the sustainable development concept in reality.

Going further, the 2030 Agenda and the Sustainable Development Goals (adopted in 2015 for the period 2016-2030) underlines seeking for peace and inclusive societies as a whole. Among 17 goals put down in the Agenda, there is one concerning education, demanding "ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all" (Sustainable Development Knowledge Platform, 2017). It is very important for students to acquire knowledge and skills to promote sustainable development and also to live it in everyday life. It means that they should be taught about sustainable living promoting sustainable lifestyles, promoting the idea of peace and tolerance, appreciating cultural diversity.

It is in the interest of the development of Croatia and Croatian society to harmonize national goals with the sustainable development concept. The development of the educational system and investing in it is one of significant national interests (Lay, Šimleša, 2012). In the Strategy for Sustainable Development of the Republic of Croatia (2009), education for sustainable development is considered one of basic principles, as well as one of important assumptions of further development, where at different levels are proposed for education: formal education, non-formal education and informal learning. It is expected to be lifelong education so that we are prepared for a variety of challenges during the lifetime. Besides, there are many different topics that should be considered during education, like protection of natural and cultural heritage, biodiversity and natural resources management, social justice, rural and urban development, etc. To achieve all this, it is necessary to adapt contemporary curricula. Demands for changings in educational system are so frequent and loud that no one should stay aside. Those demands reflect the reality – faster technology development, social and political conflicts, natural disasters and threats, so the schools (system) should transform and adapt to life circumstances (Bezinović, 2003).

2.1. Geography as a meeting point for sustainable development education/projects

In many educational systems geography as a subject has found its place as the base of a general culture, it represents the path of students' entrance into the world – today, and it also anticipates the possible situations and problems of the global world (Brkić-Vejmelka, 2000). Geography may be one of the most prominent and oldest disciplines in the conceptualization of human-environment interactions that integrates elements from natural and social sciences (Skou Grinsted, 2013).

In line with listed, numerous demands and challenges that stem from social and political development of the modern society, there are numerous examples of extracurricular activities that develop not only necessary skills and help acquire knowledge for students' professions but also help acquire life skills for the lifestyle harmonized with the sustainable development concept. New organization of business does not rely solely on information, but also on a particular culture, style and manner of work (Srića, 2003). Therefore, in the teaching process it is desirable to foster creativity (which is one of the most important skills), cognitive agility and decision-making skills. Living in a time of artificial intelligence, huge possibilities and quick changes, learning is getting more and more out of the institutions (e.g. online open courses), learning is transforming into a permanent process without limits in space or time (Brkić-Vejmelka, 2000).

Geography teachers, who are often organizers and associates in extracurricular activities in Croatian schools, have a significant role in developing necessary knowledge and skills for the application and implementation of the sustainability concept. Some activities are linked with previously acquired knowledge in physical and social geography. Previously acquired knowledge and skills from all fields (subjects) are also used, enabling a holistic, integral approach to learning. Science is the field for possible teaching reform in schools providing students the opportunity for experience-based and practical learning (Sahlberg, 2012), as the basis for education on sustainable development concept.

Concerning vocational schools, their specificity is in preparing students' knowledge and skills for the labour market (initiative, entrepreneurship and self-confidence). Hospitality-touristic and catering school (in Zadar) was involved in the previous year in various (European) projects, and also devised a few, with the goal of educating students for sustainable development, and for developing independence, innovation and entrepreneurship.

3. RESEARCH METHODOLOGY

The methodology is adapted to the problem and the goal of the research. The paper investigates the possibility of geography curriculum in vocational schools through (school) projects with various topics, but with common goals: pupils' recognition of the value of natural and cultural heritage of the local environment as one of the more important assumptions of promoting the sustainability idea, supporting self-initiative, creativity, and development of social sensitivity. Therefore, the qualitative method, deemed the most appropriate, was selected. As this is a complex and dynamic social context, which is a compendium of meanings and perspectives, understanding can be best achieved starting from the experience of collocutors and their interpretation of the social reality, since they are the most familiar with specific conditions of life in their environment (Halmi, 2004). In accordance with the goal of research aimed at students and teachers, the method of semi-structured interview proved to be the most appropriate for collecting detailed data, opinions and impressions. Sampling was realized according to the criteria of geography teachers' participation in activities related to school projects that is in line with the set research goal. Interviews were conducted with thirteen collocutors all of whom were able to provide

important information on the research topic, as well as important vocation-specific opinions based on their experience (Pertić, 2007, Mason, 2007) through participation in activities related to school projects. Three geography teachers (T1, T2, T3), three vocational subjects teachers (T4, T5, T6), and seven students (S1, S2, S3, S4, S5, S6, S7) participated in interviews. The first part of research was conducted during February 2016. After the first phase conducted in the Hospitality-touristic and catering school, where we determined that teachers of different subjects manage projects, we conducted six more interviews to determine if through geography content the notion of importance of sustainable development could be instilled in students. We also wanted to determine how much geography teachers are involved in school projects, what they highlight as advantages and shortcomings of projects, and possible shortcomings of the school curriculum itself. In the second phase of research, apart from the teachers from the Hospitality-touristic and catering school, two geography teachers with experience in participation in projects, from two other vocational schools in Zadar, also participated in interviews. This was done to acquire insight into the experience from the perspective of geography teachers in different vocational schools. Interviews were conducted with another three students who participated in a recent project realized in the Hospitality-touristic and catering school in cooperation with the Hospitality school from Finland.

4. ANALYSIS

To acquire insight in the possibility of implementing the sustainable development concept in geography classes through various school projects, obtained data were processed through three topics contained in the interview protocol. The instrument encompassed the following topics: Experience of geography teachers in vocational schools with sustainable development concept implemented in the official curriculum, Conducting projects at schools, Projects' impact on students' sustainability awareness and knowledge.

4.1. Experience of geography teachers in vocational schools with sustainable development concept implemented in the official curriculum

Geography teachers from all three vocational schools with whom interviews were made participated in one of school projects related to different topics, like environmental protection, climatic changes (SEMEP; GLOBE), sustainable tourism. They all emphasised insufficient representation of sustainable development concepts in geography curricula. The sustainable development concept is not sufficiently discussed, and it is usually treated as a term in one lesson in the curriculum. This lesson is foreseen at the end of the curriculum and sometimes, teachers do not even manage to get to it due to the total low number of geography class periods.

“Well, not really.... We all emphasise it... nature protection, but I believe it is not enough... I have two class periods, I do not have enough time for it, and I have one lesson only. Actually, we try to present it in each lesson” (T1).

As these are vocational schools (Hospitality, Maritime, Graphic), vocational subjects are more important to pupils, so they see geography as something they *“do not really need”* (T3). Geography teachers are aware of the importance, so they try to present the sustainability idea to pupils through other units, even though in the curriculum, in their opinion, it is underrepresented. Moreover, in vocational schools, the number of geography class periods is small, so there is mostly only one teacher conducting all the geography lessons in the school, and therefore often the teachers of other subjects, mostly vocational ones, are involved in the projects.

4. 2. Implementing projects at schools

For teachers to be able to manage projects, they participate in numerous educational programs that are mostly organized by the relevant Ministry.

“You have to pass a course to be a manager of that program.” (T1)

Ideas for projects that were conducted in schools came not only from teachers, but also from students. Teachers got the ideas by informing themselves in various ways, via various publications, or web pages, by consulting colleagues, as well as through notifications on possible accesses in projects preparation that the school obtains from different institutions and companies (Ministry of Tourism, Environmental Protection Fund, Ministry of Environmental Protection, large companies such as INA, Nexe). Teachers refer to the importance of continuously following information on possible involvement in the realization of certain projects.

Teachers presented project ideas to students, attempting to offer as much information as possible, and motivate them for work. Students were also involved in this process of projects realization; the teachers considered their ideas, and it can be concluded that complete projects are realized in creative interaction between pupils and teachers. Thereat, it should be noted that the topics are selected also in line with the interests of students from these schools (tourism and hospitality, graphics, maritime) so that they may benefit in more ways from the work on projects.

“I would think of a project, and then I would tell the pupils about it to see what they thought, and they would make some suggestions. From then on, the project developed, in each phase we would change something, add, or exclude something.” (T1)

“Well, I can tell you that I was most surprised by the response.... Later, when you draw pupils into a project, they work on it very happily. I was surprised how engaged they become, and how much they are willing to do something that is not within the scope of homework..., those are usually extra hours. They like doing it. It is far more interesting for them than the school subject matter, and I think it is also far more useful...” (T5)

In different phases, different stakeholders from the local community were also involved in the project; so the collocutors talked about cooperation with the county Tourist Board, other tourist offices, for example that of the city of Zadar and Pag, the Ministry of Science, Education and Sport, family farms, restaurants, local community like city of Zadar and other smaller towns and villages in the county.

The cooperation between teachers in the school itself is especially important for the implementation of projects. Both teachers and pupils talk about cooperation with teachers that teach different subjects, and so they mentioned assistance and engagement provided by the teachers of Psychology, Physical Education, Cooking, Confectionary, Food Technology, Basics of Tourism, foreign languages, Biology.

“Managing the Ecoschool section, I attempted to connect ecology and the vocation, and then I realized it made sense, the section does not need necessarily to be managed by a biologist, or a chemist, but it could be managed by a vocational subject teacher. This is interesting for the teacher also, to “get away” from things he/she teaches every day.” (T4)

The teachers emphasise the understanding and support from colleagues and the school administration, especially considering that pupils occasionally missed out on regular classes because in a certain phase, the projects included also field classes for which teachers and pupils say it is the most useful, interesting and creative component.

Project realization demands a lot of engagement by teachers involved, and a lot of their free time. All teachers agree that the enthusiasm of individuals is key for realizing such projects, because it is sometimes difficult to realize certain elements, such as getting in touch

with various stakeholders, or to transport students to the locations where field classes are to be held.

One of mentioned limiting factors is also the lack of funds, even though part of funds was provided from project financing, sometimes schools, or even pupils themselves payed a certain amount to assure funds necessary for project realization. Apart from that, since classes in most schools are held in two shifts, it was sometimes difficult to gather students. Most of them live outside the city where the schools are located and are depend on public transportation, so this was also an additional problem for their participation in projects, even though they did not lack the will.

Due to lack of funds, most projects were realized according to capabilities.

“We tested sea quality with modest instruments... the amount of waste, rubbish on the surface. We went to Kolovare, city beach. The field classes were held in the city. There is no money for us to take them somewhere.” (T2)

Furthermore, the teacher also mentioned the complicated procedure necessary to take students to field classes outside the city as a problem for field classes.

“The parents have to give us permission to organize a trip, and then we have to organize a public competition. Agencies come forward, and then we have to gather parents again to choose the agency, the price... then they have to give permission for their child to go somewhere. Only when this procedure is confirmed; when we finish the procedure, only then we can say that on a particular date a particular number of students are going... I cannot take them anywhere, the furthest that I take them is very close beach Borik, if you want to realize a project, you have to go somewhere at least twice, for example to check the situation in the fall and then in spring... It is such a procedure that the end of the year surprises you.” (T2)

Entrepreneurs that should get involved in the projects were often disinterested, in the teachers' opinion, and not ready to assist in the project realization. These are only some of the problems that project participants encountered during projects implementation. There were attempts to raise some funds, for example by selling own products that students made at school. Funds raised from the sale were for humanitarian purposes (in cooperation with school volunteers), so thusly goals were achieved, namely contribution to the local community and social awareness and inclusion. Teachers also mentioned the lack of ideas for new projects as an obstacle, as their experience made them aware of limitations and obstacles. Therefore, attempts were made to harmonize the ideas with the material capabilities of the school, and wishes of the students.

4.3. Projects' impact on students' sustainability awareness and knowledge

All collocutors talk only of positive effects of projects. Teachers were those who, in the initial phase, inspired students to participate in projects. Students mentioned a number of subjects in which they encountered content related to sustainable development, such as preserving natural and cultural heritage, but they also said they had never linked this with real life before, until they got involved in school projects. One student talked about the experience of visiting a protected locality, special ornithology reserve Veliko blato on the Island of Pag.

“This is a huge, beautiful area and I have never heard about it, but I also believe that many of us students have not heard about it before this project. It is wonderful, we were walking through a field, and suddenly a heron flew off, I have never experienced something like that. I am sure people are not aware of this place on Pag, and I have learnt so much.” (S1)

All pupils emphasize the importance of nature and its preservation.

“Nature... it is the most important thing we have...” (S1)

Pupils also believe that they learnt more and are more aware of the importance of environmental protection than those who have not participated in any projects. They believe that with their participation they can interest other pupils, as well.

“I find it beautiful, but people don't care. I knew about it, but there are so many stories behind it... the whole class will now see what I have worked on, and 20 more people will know about it. I would look at what my friend is doing and then think about it...” (S1)

Older students who participated in several projects showed more knowledge about the importance of environmental protection than those who participated in only one project. A student who participated in most of the projects said it was very interesting what they found out from tourist guides, and that he, if he becomes a tourist guide, shall also attempt to transfer knowledge about his countryside in an interesting way.

“It was very cool when a tourist guide tells a story about it all. If I become a tourist guide, I will surely tell everyone that Zadar is surrounded with four national parks, and our teachers also tell us that.” (S1)

Students say that before projects, they did not think much about the importance of healthy food, but they learnt a lot from their visits to family farms. For example, they learnt a lot about planting strawberries, and they also made jam in the school kitchen with the help of the pastrycook (teacher). They have noticed the benefits of having been able to see the whole process, from planting to the final product – jam that they sold for humanitarian purposes.

During the visit of students from Finland, all project participants had the opportunity to see an example how a family farm functions and how the needs for the catering industry can be satisfied in full with own production of necessary products (olive oil, meat, milk, cheese). Students from Finland were nicely surprised for having the opportunity to consume the food manufactured on this farm. Our students were also delighted with such an example and also with the local environment that they haven't noticed before.

“One boy was really surprized to see that we have rosemary everywhere... that really delighted him.” (S5)

During the realization of some projects, like for example Fig, the Queen of the Mediterranean, interesting recipes were collected for figs, autochthonous fruit that is both neglected and underestimated, and rarely appears on menus of restaurants. A book of recipes was compiled and even translated into French in cooperation with French teachers and the Francophonie association – Zadar, and was presented to the public in the main City library. The whole edition was sold out shortly after it was issued. As contribution to the project, the pupils planted an autochthonous specie of fig in the schoolyard.

A teacher also emphasized the importance of learning about healthy food and points to the importance of new projects that shall include special kind of nutrition. That is requested more and more due to the change in the quality of food caused by changes in the environment. That has in turn caused different food intolerances and allergies. She also spoke about the importance of raising students' awareness of changing trends in gastronomy and that demands constant adjusting during professional career.

“Eco friendly food European projects, preparing special food... more and more diseases as celiac disease, they should be ready to prepare food that is on high demand today.” (T5)

“I knew about healthy food, but I did not know how healthy those strawberries were, I did not know that imported strawberries were treated with different products to keep them fresh as long as possible. She taught us how to plant our own strawberries in our garden...,” (S5)

“So we can use what is home grown and less treated with pesticides... and not planted near roads, near exhaust gases.” (S6)

“Teacher always emphasize that fresh ingredients should be used, not those from shopping centres, but those from local suppliers... more precisely, if you have a garden, and you do not live in a flat, you have no problem.” (S5)

“The jam was made using only strawberries and a little sugar, so students were able to see how to make jam without preservatives and additives, as our grandmothers used to make it.” (T6)

Answers to the question what sustainable development were very interesting. Namely, the students did not provide a definition they learnt from the book, but they gave an explanation according to their understanding of sustainable development.

“Oh, I heard about it... sustainable development...it means that advancement of nature... well, that no matter how much we go forward we should respect where we came from. Nature was here first, and there is us. I know this from my grandmother...how much the elder respect nature on the island. When I go to my parents’ village, we all think that we who are coming from the city, are above them because we do not live there, and they do respect... sustainable development in villages is natural... if it was not for my grandparents no one would show me, and my kid would not know, he will get lost... these islanders... people from the countryside... they have a different attitude toward life.” (S1)

“Sustainable... well when we preserve our things, I do not destroy it with the paper, we do not throw it away, we separate waste.” (S3)

“For example when we preserve a tradition, or something that used to be before, so it does not disappear.” (S2)

Students from vocational schools who did not have geography as a subject in the curriculum, can enumerate mostly ecological issues they mentioned in the elementary school within different subjects, but now they have learnt through the project what sustainable development is and how to support it through their profession.

“We can preserve nature by cooking food less, processing it less thermally, so less CO₂ is released into the nature, by not using cars, but bikes more, or public transportation, and so on... by growing our own food, having our animal farm“ (S5)

The students became aware of the need to use picking and foodstuffs, instead of throwing it away, to give to the needy, and thereby they strengthened social competence.

“We talked about giving away food from restaurants... bakery’s... to public kitchen, not to throw it away, but to use it” (S4).

Students emphasize also nice school surroundings and think that education and information they get in the school, especially through the environmental projects, contribute to proactive attitude toward environmental issues.

“We are taught through planting, cycling, maintaining the school yard, if we clean it and maintain it, we are more likely to keep clean, if we plant a tree we are going to appreciate it more... this cycling tour ...called “One car less”, because of CO₂ emission from cars, it is bad for ozone mantle, for smog. If only it would be done globally, but this is good also. Other schools were involved, not only ours, many people go for cycling tour, from children to older people. As soon as you are involved, you become more aware. We need a habit, a drill, if only we have more such activities, like “Eco days”. I think it should be implemented “it is cool to be eco”...to drive a bike is healthier for the people and for the environment. If we maintain and clean, we would take care, if we plant a tree we will appreciate it more...that is why such projects are good”. (S7)

“We have posters in the school, and the school put up waste bins everywhere so you do not throw trash around, in the street, but walk over to the waste bin, and when you are in the city, you will then also throw waste in the bin”. (S2)

Through some projects students also got ideas that may be useful for their future profession related to hospitality and tourism, and they cleverly link the knowledge acquired through the project with the knowledge acquired from the curriculum:

“With so many types of tourism, maybe some people from other countries and cities would come here... there are so many people who never planted, tourists to plant strawberries, who never worked with plants. They would pay for that experience... they would find it more interesting than we do, linking some type of tourism with that, linking some type of rural tourism with all of that”. (S3)

Teachers believe that participation in the projects contributed more to the students’ awareness of the importance of sustainable development concept than the curriculum.

“They find this far more interesting than school subject matter, and I believe also more useful, why... because through all these projects in a way they can get some entrepreneurial ideas for developing their own business in the future. In the project Fig, the Queen of the Mediterranean, students – future cooks were involved, one day they may have their own restaurant, and they can include fig dishes in the menu. I tried to inspire entrepreneurial spirit in each of these projects, and perhaps this is one the most valuable points of these projects.” (T4)

“Well, I think that these projects have left a more significant mark on students than the theoretic subject matter. All these projects can be very useful in their future work, and after all these children are the future of Croatian tourism.” (T5)

5. CONCLUSIONS

In the opinion of geography teachers, the number of class periods in the curriculum is too low to encompass topics related to sustainable development in a more comprehensive manner. They attempt to implement important topics in the geography subject matter through other lessons. All collocutors point out the importance of school projects for raising the students’ awareness, which includes knowledge about the current state of the environment, as well as the readiness to protect and preserve actively the environment in the future, which is also the basics of the sustainable development concept. Furthermore, projects inspired students’ initiative, creativity and involvement. Special pleasure and usefulness is assigned to field classes in which students link the subject matter taught at school with the real state of the environment. Teachers encouraged students to participate in projects through all phases, from the initial idea to the working agenda and final results.

Due to the low number of geography class periods, there is only one geography teacher, and therefore teachers of vocational subjects also got involved in project realization. They teach vocational subjects at school, but also tried to acquire certain knowledge informing themselves in various manners, and attempted to incorporate this in their subjects. Students and teachers emphasise the benefits of knowledge and skills acquired during projects. They shall be able to use it in the future, thereby contributing to actual implementation of sustainable development concept in practice, especially related to the fields for which pupils are educated. It was pointed out that the lack of funds, complicated and long process of organizing trips out of the city, work in shifts and the fact that most students live outside the city where the school is located, make it difficult to work over the weekend or between shifts. All this made certain problems for the organization of field classes.

Mentioned projects are the path leading to a more efficient manner of acquiring knowledge and skills, and of achieving better pupils’ focus and self-confidence. We believe that realized projects are a way of achieving these goals, and apart from facts, students also acquired generic competences. During the projects, they communicated with each other, they presented their results using information and communication technologies, they were actively

involved in the local community, and they learnt more about their interests and capabilities, thereby certainly determining the direction of their future education and professional career.

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