

EDUCATIONAL PATHS IN ENVIRONMENTAL EDUCATION ON THE EXAMPLE OF THE SILESIA VOIVODESHIP IN POLAND

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Abstract: The notions of educational path and environmental awareness are defined in the article. The paper aims at finding out whether the Silesian province residents know about the existence of didactic paths located within the area and what expectations for this type of objects influence the general attitude of the respondents to the natural world. An additional objective is to find in the electronic media about the largest number of didactic paths and to analyze their subject. The survey data collected in 2014 include 152 randomly selected inhabitants of the province of Silesia. The questions pertain to the knowledge about didactic paths and the inhabitants' attitude to the paths and the nature. Public sources containing information about didactic paths in Silesia are also analyzed.

Keywords: environmental education, educational path, Silesian Voivodeship, public education, survey, didactic paths

Introduction

Didactic paths in Poland are found in almost all forest districts or regions cognitively attractive [9]. They are often referred to as educational paths, although the term was once strongly associated with Polish education and not a path demarcated in the environment. According to Antczak [2] *an educational path is a demarcated and signposted route, located in the natural environment, allowing the acquisition of knowledge by visitors, either on their own or with a guide*. Although this definition refers to the educational nature paths, mostly forest ones, it does not differ from the general understanding of the didactic path. The advantage of didactic paths is that their contents are directed to every age group. These can be both students and adults who have completed education and yet still want to deepen their knowledge. Creating didactic paths is therefore

a postulate fulfillment of teaching about the environment people of all ages [10] and promoting issues of environment protection [15]. Paths touching on natural issues play an important role in promoting awareness about the surrounding environment. Their placement in the natural environment gives visitors the chance for a direct contact with the nature, which is the best way of gaining knowledge about it - and consequently deepening ecological awareness. The environmental awareness is a widely understood concept that can be defined as the knowledge, ideas, values and opinions about the environment [5]. It is also a major and indispensable objective of environmental education, the mission of which is to shape positive human attitudes towards the environment. Didactic paths help to shape these attitudes. Thanks to them pro environmental attitudes develop in the society [7]. It is kind of obvious, because greater knowledge about the

world and greater awareness of the environmental consequences of human activities, usually result in a more rational attitude towards the nature [11].

Didactic paths will serve their purpose only if certain criteria are met. Namely - the society must not only want to visit them but, first of all, must know about their existence. It is hard to use didactic paths in environmental education and raising ecological awareness of people, when local communities are not aware of their existence. Thus, the overarching goal of our research was to check whether the Silesian province residents know about the existence of didactic paths located within the area and what expectations for this type of objects are on the background of the general attitude of the respondents to the natural world. An additional objective was to find in the electronic media about the largest number of didactic paths and to analyze their subject. The Silesian region as an area of relatively high diversity of landscape is the one where you can expect a wide variety of didactic paths, and therefore the research was conducted here.

Methodology

The analyzed material were survey data collected in 2014 from 152 randomly selected inhabitants of the province of Silesia. The surveys were anonymous. They consisted of 17 questions, including 4 demographic questions. There were questions of one and multiple choice. The questions pertained to the knowledge of the surveyed about didactic paths and their attitude to the paths and the nature. There were also analyzed public sources containing information about didactic paths in Silesia. A number of paths and subjects of these paths were checked. It was also checked whether conventional (paper) information and promotional materials, guides and organized forms of using the paths, e.g. workshops and lectures, were available for individual use. It was also checked which paths were equipped with boards and under whose management they were.

Results

On the Internet you can find a list of didactic paths, while it is harder to find their descriptions and additional materials related to them. Based on the analysis of Internet sources

[17, 18, 19] the number of pedestrian nature paths in the province of Silesia, could be determined at 180. Our analysis shows that 91% of paths have boards and 8% are only marked as didactic paths. For the remaining paths no data on boards was found but only the number of stops on the path. These stops are for example viewpoints, but this does not disqualify these paths from didactic ones.

Information about stops is then included in the conventional materials - brochures or guides. 40 % of didactic paths located in the province of Silesia are managed by Forest Districts of Regional Directorate of State Forests; 24% of the paths are under the management of the Silesian Complex of Landscape Parks (LP); 20 % belong to the cities and municipalities, 19% are in the care of associations or companies and 2% are in hands of the educational institutions.

The boards of didactic paths mostly contain information about flora (at 93% paths), fauna (78%), the functioning of terrestrial ecosystems (70%) and the impact of human activities on the nature (48 %). Much smaller is the content on aquatic ecosystems (32%) and geology (18%). Other, more rarely presented contents concern: silviculture, work of foresters, functioning of sewage treatment plants, municipal waste landfills and related issues (17%). 21% of paths touch on subjects related to the history of the region (Fig. 1).

In the case of 79% of paths additional materials such as brochures, guidebooks were prepared. 37% of the paths gave the opportunity to explore the path with the guide (the others did not offer such an opportunity or no data were found on this) (Fig. 2).

The paths that are under the management of the Silesian Complex of Landscape Parks (ZPKWŚ) can be visited on one's own or with a guide. The staff of ZPKWŚ organize workshops, discussions, festivals, competitions associated with the paths or competitions directly carried out on their territory [20], similar forms of activity are also organized by the Forest Districts, companies which manage the paths and local governments. Most often they are workshops and competitions. In any case, additional forms of didactic activity on the paths are payable. Paths in the LP are most often the objects used for the implementation of forest education (Report on the activities of the LP) [4]. In case of schools managing the paths lesson plans conducted on the paths are offered.

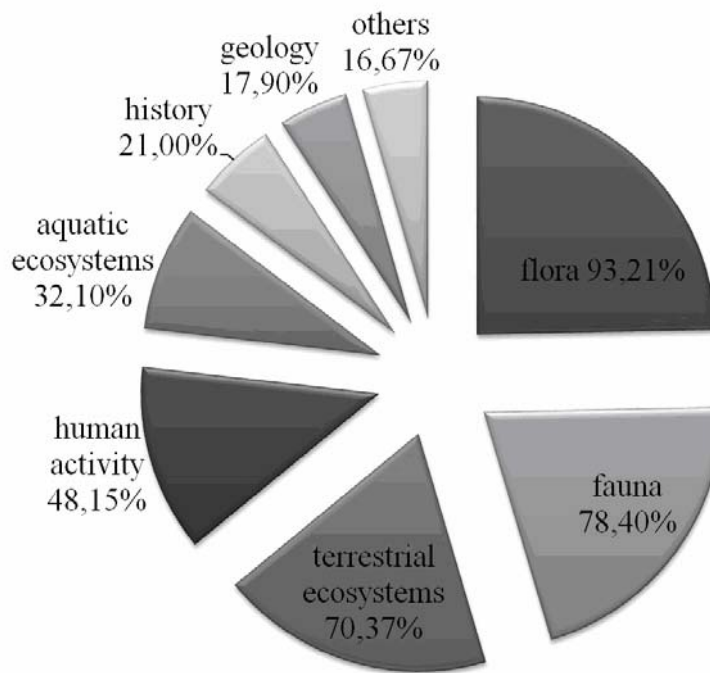


Fig. 1. Subjects contained in the didactic paths

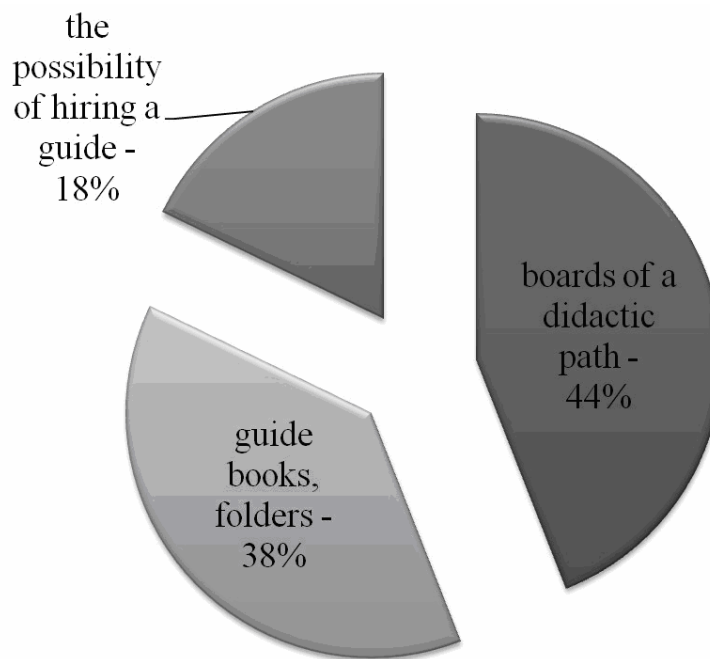


Fig. 2. The offer of didactic paths in the Silesia Voivodship

Unfortunately, in these studies, only a few ones were found [5]. Of all respondents 99% said that they liked to spend time in the great outdoors; 94% declared their interest in the surrounding nature. In the same group, 79% of respondents would like to get to know the natural world better. Less than 30% of the

respondents look for interesting issues about the nature on their own and the same number declared willingness to deepen their knowledge if they had more spare time. 27% of respondents do not deepen knowledge about the nature without giving a reason (Fig. 3).

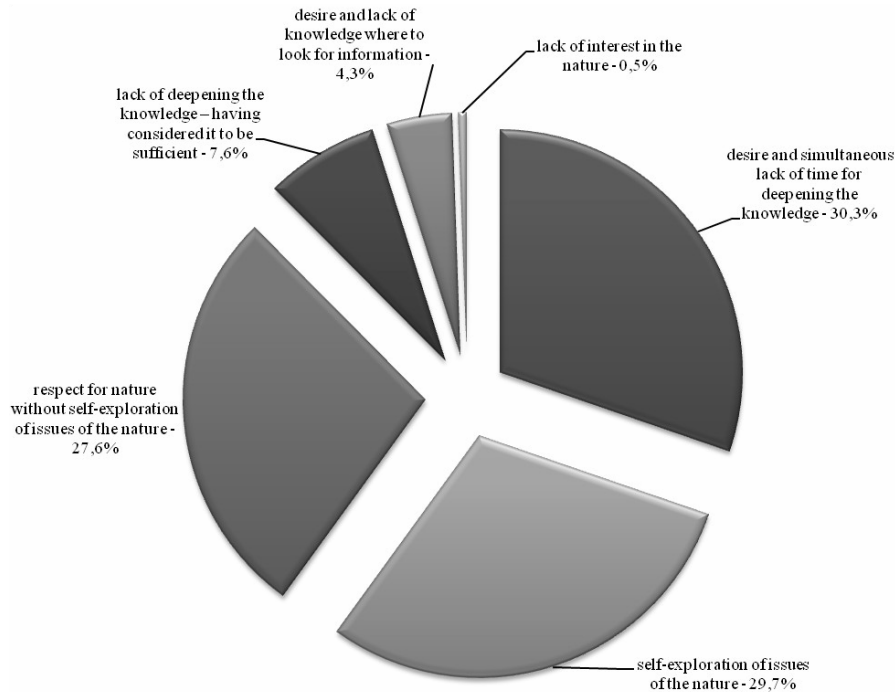


Fig. 3. Respondents and their self-deepening the knowledge of the nature

The respondents most frequently spend time outdoors during the holiday season - days off from work/school and on weekends (46%). 85% of respondents met up with the concept of

a didactic path. 63% of people have visited one of them once, but only 26% in the province of Silesia. Some respondents (32%) have not visited the path but would like to do it (Fig. 4).

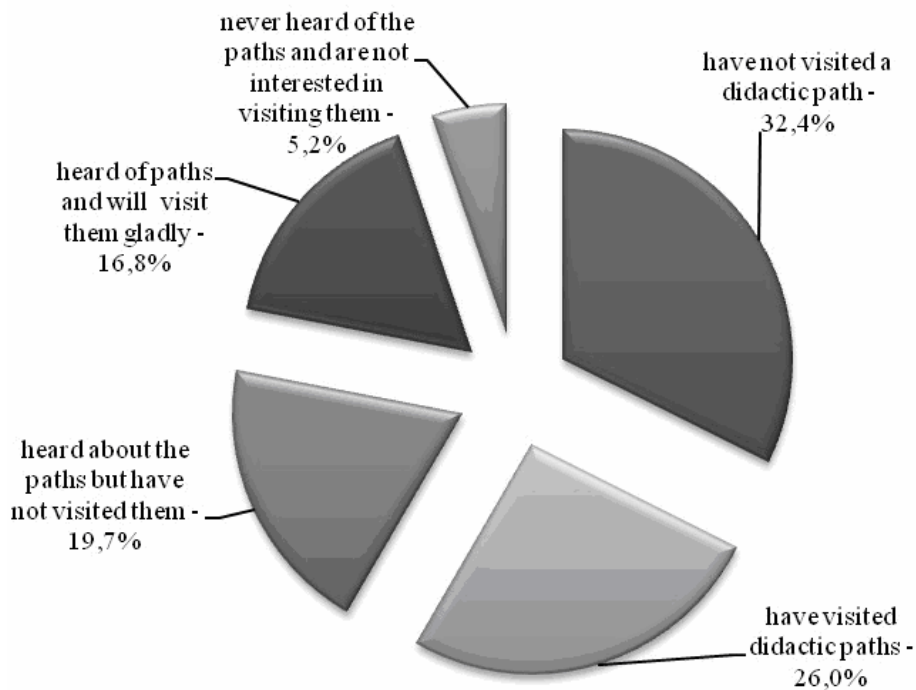


Fig. 4. Respondents who in the Silesia Voivodship...(percentage of respondents)

Respondents would preferably visit the paths associated with botanical, zoological and geological subjects (Fig. 5).

Almost 91% of respondents believe that the path can be used in environmental education of the society, additional information and promotional materials would encourage people to visit the path and deepen their knowledge. Opinions of respondents are divided when it

comes to the assessment of what materials/activities should accompany didactic paths to encourage them to explore and enhance ecological knowledge. The most common suggestions were the following: workshops conducted on the paths - 23% , information on the Internet - 19% , articles in local newspapers and guides in the form of books - 15% (Fig. 6).

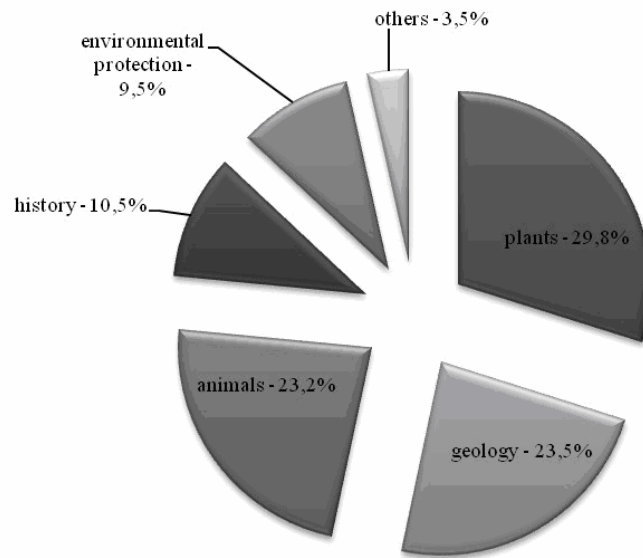


Fig. 5. Subjects of the paths that are in respondents' interest (percentage of respondents)

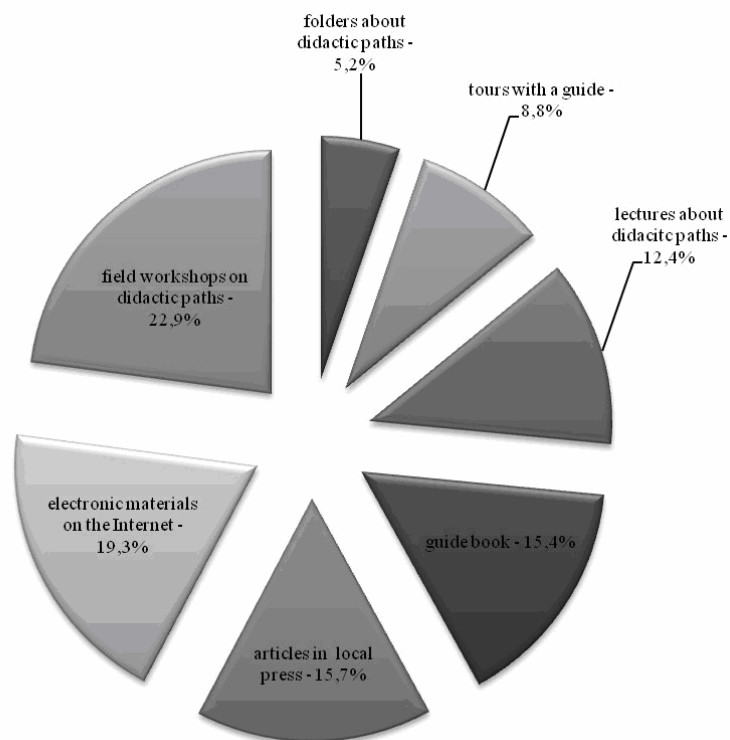


Fig. 6. Additional materials expected by respondents

These materials according to the respondents should be free (84% of respondents) to encourage people to visit the path. Almost the same number of respondents (87%) believe that

the information on the didactic paths is not well propagated among the local community (Fig. 7).

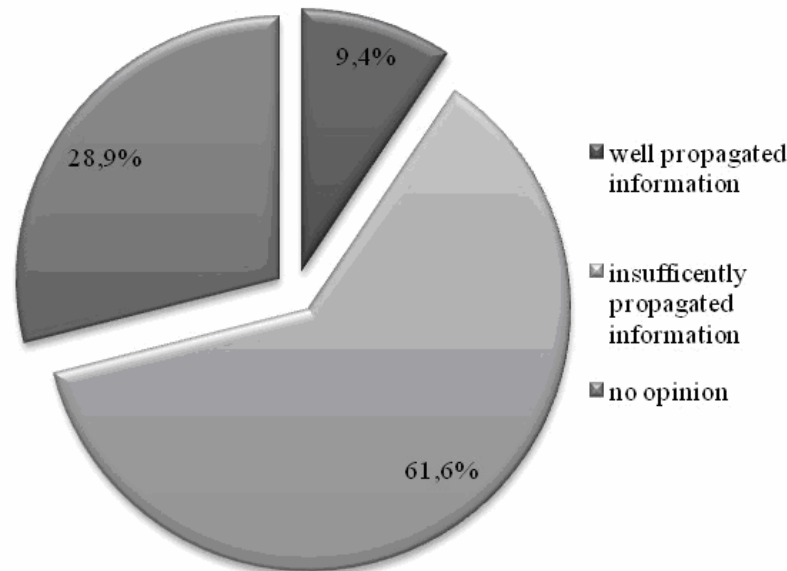


Fig. 7. Availability of information about didactic paths in the Silesian Voivodship in the opinion of respondents

In order to verify whether the views and knowledge about didactic paths are associated with the place of residence of the respondents (village - city), a test to assess the significance of the two indicators of structure (percentage) was conducted. This test showed no statistically significant differences in responses to questions when comparing respondents living in rural and urban areas. Among the surveyed 55% of inhabitants of the city and 53% of inhabitants of the country had higher education.

Discussion

The results indicate that information about didactic paths in the Silesia province equally reach the inhabitants of the country and city. The results showed that among these two groups of respondents the same percentage of the inhabitants of the town and village have a higher education and a positive attitude towards the nature. Similar conclusions were drawn from the studies by Bednarek-Gejo [3] - respondents regardless of their origin were interested in the nature. So it seems that the

main factor influencing the interest in didactic paths is the attitude of the society to the nature and a desire to seek knowledge about it, while deepening the issues of the nature. The amount of respondents who met with the concept of didactic paths and visited at least one of them confirms this claim. It is worrying that 87% of all respondents believe that information on didactic paths is poorly propagated in Silesia. This information should be easily available because it largely determines the popularity of the paths. Szyrmer and Smolnicki are of the same opinion [15]. They claim that the path will serve its purpose only when information about its existence is propagated in a form of leaflets, brochures and other materials available in schools and libraries. As a significant source of information Internet should also be considered, because it is used by both the young and adults [14]. In its resources one can find lists of didactic paths located in the province of Silesia, but without descriptions and additional related materials.

These deficiencies can hinder the natural self-education on the paths with no boards but an

easier access to conventional materials (as well as electronic materials preferred by respondents) could be a kind of facilitation for teachers conducting the classes on didactic paths within the core curriculum. A possibility to hire a guide may be inadequate here, since it is often associated with costs. According to Szyrmer and Smolnicki [15] only half of indexed paths (the area of Lower Silesia) have this kind of materials. In case of the present study the percentage was much higher, approximately 79% of the paths. The availability of these materials may be significant for people who have not had the opportunity to visit the path but want to do it. Such visits are usually a way of spending free time. The development of tourism and its mass character has become an opportunity to increase the environmental awareness of people [9]. Didactic paths are often points of interest on tourist routes or their main element that makes the place attractive to tourists. Many authors have increasingly introduced the concept of educational and touring paths as a form of educational tourism [8]. Developing tourism forces to take active measures to raise ecological awareness of both visitors and residents of touristic areas [1]. State Forests have recognized that tourism concerns mainly forest areas, that is why a significant part of the infrastructure is designed for those who want to get to know the forest better. This is a very important phenomenon in times of high demand of the forest education [13]. In light of the survey data, which show that the majority of people interested in the nature have time to spend it in the great outdoors only during the holiday, it seems necessary to promote didactic paths. They may combine learning with pleasure - spending holidays in a place where in addition to hiking one can acquire some knowledge of the nature. The paths can also popularize knowledge about interesting natural objects, as it is in case of the Muńcoł reserve in the Silesian province where there is a specially designed path for this purpose [16]. Didactic paths and their content can also be good means to make school classes interesting. This is very important as issues concerning knowledge of the natural environment are included in the core curriculum. Respondents visiting the paths would like to broaden their knowledge of plants, animals, geology and threats to the nature. Such content may be a supplement of

nature or biology teaching at different stages of education. As early as at the first stage of education (classes I- III) students learn about threats to the environment caused by human-being. They should also be able to describe the life of organisms in selected ecosystems - forest, meadows and water, and to recognize the surrounding animals and plants. Most of boards on didactic paths correspond to these issues. An additional advantage is the possibility to create the scenarios for the lessons, which will correspond to the curriculum and will be conducted in the natural environment. However, despite the high attractiveness of this kind of classes, they are not a sufficiently widespread form of field classes [6], which is also confirmed by our results. Contents of the boards can also be useful in completing knowledge of adults. The paths are often and willingly visited by students of Universities of the Third Age, who also use the additional materials (guides).

Conclusion

There is no significant difference between knowledge and expectations in connection with didactic paths among respondents living in cities and rural areas. The majority of the respondents (85%) know the concept of didactic paths and agree that such paths are useful in education and more than half of respondents (63%) have already benefited from the paths. 37% of respondents visited a path outside the Silesian province and 26% visited the one within the territory. In the region of Silesia there are at least 180 pedestrian didactic paths. The majority of them (91 %) are typical paths with didactic boards, although there are paths (8%) that are only marked as a didactic ones but there are not any boards and information about the path to be found in the brochures. On the boards information on flora (93%), fauna (78%), the functioning of terrestrial ecosystems (70%) and the impact of human activities on the nature (48%) is placed. Other kind of information appears less often - less than a third of the boards. The subjects of existing paths should satisfy the expectations of the respondents as most frequently they declare their willingness to visit the botanical and zoological ones.

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