

ARTICLES

EDUCATION FOR ACTIVE CITIZENSHIP IN SPATIAL-PLANNING PROCESSES: FROM TEACHER TO STUDENT

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ABSTRACT

Education for active citizenship in spatial-planning processes: from teacher to student

In countries with a brief democratic tradition, which also includes Slovenia, it is necessary to blaze new paths for teaching sustainable spatial development. As part of the international project R.A.V.E. Space we therefore sketched out guidelines for how information on spatial values and spatial planning can improve the learning process for geography and related subjects. Special attention was directed toward teacher education because teachers spend the most time with young people during their period of personality development. This comprehensive approach also envisioned restructuring the curriculum and seeking teaching materials and aids that can be used to bring up young people as active, responsible, and critically thinking citizens that are aware of how their everyday life practices are reflected in space and how they can be included in spatial-planning processes.

KEY WORDS

geography, education, spatial values, spatial planning, active citizenship

IZVLEČEK

Vzgoja za aktivno državljanstvo v procesih prostorskega načrtovanja: prek učitelja do učenca

V državah s kratko demokratično tradicijo, med katere sodi tudi Slovenija, je treba utirati nove poti za izobraževanje o trajnostnem prostorskem razvoju. Zato smo z mednarodnim projektom R.A.V.E. Space načrtali smernice, kako z vsebinami o vrednotah prostora in prostorskem načrtovanju nadgraditi učni proces pri geografiji in sorodnih vedah. Posebno pozornost smo namenili izobraževanju učiteljev, saj ti v obdobju osebnoznega razvoja mladih z njimi preživijo največ časa. Celovit pristop je predvidel tudi prenovo učnih načrtov in iskanje učil ter učnih pripomočkov, s katerimi lahko dijake vzgojimo v aktivne, odgovorne in kritične državljane, ki se bodo zavedali, kako se njihove vsakdanje življenjske prakse odsevajo v prostoru in kako se lahko vključujejo v procese prostorskega načrtovanja.

KLJUČNE BESEDE

geografija, izobraževanje, vrednote prostora, prostorsko načrtovanje, aktivno državljanstvo

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In countries with a short tradition of including the public in decision-making processes it is necessary to prepare citizens for active involvement. This is also clearly shown in the current situation in Slovenian society, characterized by unreasoned opposition to any kind of proposal or spatial change (Fridl, Urbanc and Pipan 2009, 370). The first reason for this is bad experiences from the past, especially the political misuse of expert findings and not taking the public into account, and the second reason is the materialistically oriented society, whereas space has a distinctly post-materialist value (Resnik Planinc 2006, 13). It is therefore necessary to raise people's awareness that proper spatial management may be more expensive in the short term but it is the only reasonable path in the long term. The third reason, which cannot be neglected, is that in the educational system the sustainable perspective was largely treated as relating to environmental protection, whereas spatial aspects were completely overlooked (Kasimov, Malkhazova and Romanova 2005). In general as well, the sustainability concept is often treated with an emphasis on environmental principles (Higgitt, Haigh, and Chalkley 2005, 14). Slovenia is no exception in this regard, and therefore in 2005 the Ministry of the Environment and Spatial Planning assumed leadership of the international project R.A.V.E. Space (Raising Awareness of Values of Space through the Process of Education) as part of the Interreg IIIB program. The project's activities were based on the premise that raising awareness is especially effective if it becomes part of the educational process (Demšar Mitrovič et al. 2007). This article seeks to present the key findings of this project and some further activities; for example, restructuring the Slovenian curriculum, educating teachers at seminars, and raising general public awareness with the help of research articles and discussion papers.

The process of raising awareness must start intensively especially among young people as the most receptive group because in a few years they will assume the burden of responsibility for future development. It is essential for individuals to be aware of how their lifestyle influences the use of space and development of activities, and indirectly also influences costs and accessibility. For example, living in a single-family house with a yard is considerably more expensive and demanding for the individual and for the community than living in an apartment building because this substantially increases the per capita costs of public utilities and it also reduces accessibility to activities, especially for children and the elderly (Fridl et al. 2007, 202). Therefore this project outlined several measures at various levels: preparing strategies, improving the curriculum, educating teachers, and selecting suitable teaching methods and materials. By suggesting new teaching methods or improving existing ones, we primarily built on skills and not on teaching facts. Many researchers have emphasized the importance of experimental learning, including Kotval (2003) and Michiko Hama et al. (2005).

To achieve the goals set, it is clearly most important to train teachers, who spend a substantial amount of time with young people during the period when they are shaping their view of life and the living environment based on the information they have received and the experiences they have had. At both the conscious and unconscious levels, teachers build their perspectives, values, and world views into the educational process, whereby these values primarily depend on time (they are not permanent), culture (evaluation criteria change in line with social changes), and participants (individual or social values).

How to integrate new material into the existing curricula of the countries participating in the project was a demanding question because school systems differ considerably between countries, especially regarding their receptivity to innovations. Of course, children already learn about space in school, and so we did not consider a special new subject, but instead looked for opportunities to make connections between subjects and links to outside sources of knowledge (Marentič Požarnik 2005, 4).

2 Teachers' values

Intentionally or not, teachers' personal points of view are reflected in their classroom work (Zimmer et al. 1994; Bayard and Jolly 2008, 124), and so as part of the R.A.V.E. Space project we con-

ducted an extensive international study that included 1,897 teachers from Slovenia, Italy, Poland, Greece, and Montenegro. Here we will emphasize only a few content areas that apply to the responses received from Slovenian teachers in the survey and, as needed, will draw parallels with the situation in other countries.

Just over three decades ago, Inglehart (1977) defined the difference between materialist and post-materialist values as the starting point for understanding cultural changes in advanced industrialized countries after the Second World War. According to Inglehart, rapid economic development and the expansion of prosperity increased the economic security of postwar generations, and thus the values of the masses have been gradually shifting from materialist to post-materialist. In contrast to materialist values, which emphasize the importance of economic and physical security, post-materialist values place freedom of expression and quality of life in first place (Resnik Planinc 2008b, 27).

In order to determine what teachers' values were, the survey first asked which developmental goals of the country should take priority. The respondents, who were able to choose among various answers, put economic growth in first place (54%), followed by the opportunity for people to make decisions (35.8%), and then urban beautification (10%) and finally national defense (0.2%). A comparison shows that Slovenian teachers value post-materialist priorities higher than their Greek colleagues, and that the Slovenian results especially stand out from the results of their Polish and Montenegrin colleagues.

For the general social question, four options were also given: preservation of law and order in the country, the voice of the people in government decision-making, fighting against rising prices, and freedom of speech. In this part the Slovenian responses ranged between materialist and post-materialist values. All in all, Slovenian society is comparable with Greek society, more postmodern than Polish and Montenegrin, and more materialist than Italian.

In determining the values connected with living space, among the eighteen options offered Slovenian teachers ranked quality of the environment first (air, water, soil, biodiversity) and waste management second, from which it can be concluded that teachers are very well informed about the environment. This was followed by exploitation of natural resources (energy, water, space) and economic growth with the creation of high-quality jobs. The ratio between environmentally and economically oriented teachers was 60 : 40.

The next question applied to evaluating landscape elements. Natural heritage was followed by countryside, hydrological elements, and finally cultural heritage and the urban landscape. Teachers expressed greater inclination toward the natural landscape and the rural landscape closely associated with it. At the same time, they expressed great willingness to contribute to improving the situation in their living space if they received appropriate guidance for this.

Summing up the findings of the survey, one can say that Slovenian teachers are well aware of the importance of environmental and spatial matters, but that they would like to receive additional guidance on how to expand elements of sustainable development with spatial themes.

3 Premises for education about sustainable spatial development

Through education for sustainable development we primarily wish to disseminate knowledge of spatial values and guide students to think about spatial problems and ways to solve them. At the same time, they must be aware of the consequences of various interventions in space, understand the interconnectedness and interdependence of activities in space, and develop a responsible relationship to space. Through a wide variety of activities as part of the project presented, such as analyzing the situation, restructuring the curriculum, educating teachers, and using various teaching materials, we sought to find the most comprehensive approach to solving the problem. We were aware that the goals set can be most easily achieved if already established environmental education in the Slovenian schools is expanded to education of young people with a view to sustainable development.

3.1 Restructuring the curriculum

Restructuring the curriculum at the beginning of 2007 was an ideal opportunity to include spatially oriented material (i.e., material on spatial values, sustainable development, and spatial planning) in the curriculum of various subjects (Demšar Mitrovič, Resnik Planinc and Urbanc 2007, 5). An international study has shown that the curriculum is a key element that guarantees the successful inclusion of new values in the education process (Resnik Planinc 2008a).

According to most experts participating, it was reasonable to add new material (e.g., use of space, planning spatial development, spatial management, conflicts of interest in space) only to a small degree, especially to geography as the core subject, but of course indirectly to others as well. In general, a need was shown to build on already existing material with spatial dimensions (e.g., use of natural resources, settlement, natural and cultural heritage, traffic, tourism and free time, pollution and waste management, economic development). In education for sustainable development, it was especially important to include understanding and solving problems and conflicts caused by lifestyle changes and socio-economic and technical development in relation to the environment and space.

Many circumstances favored introducing topics about spatial values into the curriculum, but the majority of teachers felt under time pressure when teaching because of the large amount of material required. It was therefore necessary to take care not to overload the curriculum, which could have resulted in students not learning all the material.

We arrived at a broader selection of material by analyzing strategic spatial development documents and using the »brainstorming« method at four institutions (The Spatial Planning Directorate at the Ministry of the Environment and Spatial Planning (the name of the institution at that time), the Geography Department at the University of Ljubljana's Faculty of Arts, the Anton Melik Geographical Institute at ZRC SAZU, and the Ljubljana Urban Planning Institute). Proposals for improving the material in the curriculum were prepared for geography (the entire vertical progression from sixth to ninth grade of elementary school, at four-year secondary vocational schools, at vocational-technical schools, and at general upper secondary schools) and for related or connected subjects: social studies/science, natural science and technology, natural science, environmental education, social studies for three-year secondary vocational schools, and education for sustainable development as an interdisciplinary curricular area.

Table 1: Suggestions for new topics in the curriculum (Fridl, Ilc and Kušar 2007a, 14).

Thematic area	Topics
Space	Spatial values, spatial limitations, spatial complexity, sustainable spatial development
Settlement	Settlement typology, spatial pattern of settlement, system of central settlements, building typology, architecture, building materials, quality of life, green spaces, cultural heritage, cultural monuments
Infrastructure	Natural resources (renewable/non-renewable), traffic infrastructure, public transport, parking, sports and recreation infrastructure
Landscape	Land use, protected areas, degraded areas, afforestation, natural disasters (floods, earthquakes, landslides, slumping)
Man: environment and space	Wastewater, hazardous waste, source separation of waste, global changes, influence of spatial changes
Social environment	International, cross-border, and inter-regional cooperation, individual and group responsibility
Spatial planning	Spatial-planning system, democracy of planning, public participation, harmonizing interests

3.2 Teachers' seminars

Under the aegis of the Slovenian Ministry of the Environment and Spatial Planning and the R.A.V.E. Space project, three two-day seminars were held for teachers in which we wished to present certain not-yet-established forms and methods of work and teaching materials that could more effectively orient students to recognize the values of space, engage in proper environmental management, comprehensively understand the causes and effects of human interventions in space, and realize the importance of spatial planning. The idea of holding seminars immediately showed itself to be extremely useful because the majority of teachers understood »sustainability« merely as environmental sustainability.

We designed the teachers' seminars such that the activities were primarily oriented toward (Urbanc and Fridl 2007, 227):

- Presenting methodological approaches to teaching that are based on research from the R.A.V.E. Space project;
- Registering spatial values in four selected study areas with various activities;
- Simulating possible educational processes that can be carried out with students;
- Testing certain teaching materials and methods of presenting sustainable spatial development and spatial planning;
- Playing out the roles of the public vs. spatial planners;
- Collecting proposals and opinions regarding the selection and preparation of teaching materials by teachers.

The seminar took place for two days in the form of workshops and deskwork in small groups. The presentation of the R.A.V.E. Space project and concepts such as »sustainable development,« »spatial values,«



PRIMOŽ PIPAN

Figure 2: Fieldwork in the two-day seminar for elementary- and secondary-school teachers in Portorož emphasized the recognition of spatial values. The photo shows a group at the Sečovelje Saltpans.

and »spatial planning« were followed by explanations of certain teaching methods and materials used in the seminar. The activities continued in small groups with applied fieldwork at four selected locations: the Lucija Marina, Seča, the Portorož Airport and its surroundings, and the Sečovelje Saltpans. The fieldwork was primarily oriented toward experiencing, observing, studying, and interpreting the landscape with an emphasis on various spatial values defined in the morning part of the seminar and in seeking new values. After finishing the fieldwork the individual groups presented their findings. The second day of the seminar was exclusively dedicated to deskwork; specifically, to presenting and solving an imaginary case of seeking the most suitable location for placing a new activity in space, taking into account perceptions and information received from the field inspection from the previous day, and thinking about conflicts of interest in space. At the conclusion of the seminar a discussion developed on how the activities, methods, and teaching materials presented could be implemented in learning processes. We invited the teachers present to try out the forms and methods of work and teaching materials during the current school year in their classes.

3.3 Teaching materials

Teaching must also be supported with suitable teaching materials such as books, manuals, worksheets, videotapes, multilingual brochures, web pages, and so on that shed light on spatial topics. Among other things, the R.A.V.E. Space project also planned the design of new teaching materials and the analysis of existing ones, and so the survey included some questions that were also directed at the most frequently used teaching materials, aids, and methods.

The results of the survey indicate that there is too little emphasis on recognizing spatial topics in the curriculum, which could also be ascribed to a lack of suitable teaching materials and literature about



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Figure 3: A »Gulliver map« that includes additional features perceived in the field offers a complex image of existing and future spatial development.

spatial topics. Slovenian teachers still use textbooks as teaching material to the greatest extent (18.9%), followed by worksheets (16.4%) and books (14.6%). According to them, students prefer to use modern media such as CDs, DVDs, videos, and software (30.5%). The discrepancy between the actual situation and what students want is therefore interesting because teaching materials should also be a means of motivation.

With the publication of a special handbook for teachers and a collection of worksheets for students titled *Raising Awareness of Values of Space*, the R.A.V.E. Space project tried to at least partially fill this gap. As part of the seminars we also gave teachers guidelines for using existing material. In addition to field trips, either during classroom hours or school outings, it is advisable to use cartographic teaching material for recognizing spatial values and various elements and changes in a region. Aerial photos can play a double role: put together and enlarged, they can be used as a »Gulliver map« in which children play the role of a giant that looks at the landscape from up high (Fridl and Urbanc 2008, 658). In this way they receive a more comprehensive impression of the space and the distribution of activities in it than by observing them in the field. After finishing their fieldwork on the »Gulliver map« they can also mark the location of values that they perceive in the space.

Aerial photos and topographic maps are generally important for orientation in space and for marking field observations, as well as for various web applications; for example, for the Slovenian interactive online atlas Geopedia. In order to determine the state and distribution of activities in space in past time periods and to understand spatial processes, useful materials also include nineteenth-century cadastral maps and eighteenth-century military maps. A comparison of maps from various time periods makes it possible to recognize changes in space, especially in land use, and to more easily understand the changing values of space.

According to the survey results, 3D animation is the most attractive to students. This also offers a better visual concept of space than a two-dimensional presentation. Google was of great help in offering general access to a 3D model of the Earth's surface through free user access to its Google Earth application.

Similarly illustrative and interesting are simulated presentations of spatial development, which are of great use to architects when preparing conceptual projects and are already accessible on websites and in promotional material. These help students better conceptualize the consequences that an anticipated development will have in a particular space.

4 Conclusion

Education for active citizenship in spatial-planning processes, especially for young people, is the only guarantee for balanced economic, environmental, spatial, and social development of individual areas, regions, or the entire country. The goals that we wish to achieve through education for sustainable development are primarily connected to disseminate knowledge about spatial values, thinking about spatial problems and ways to solve them, being aware of the consequences of spatial development, understanding the interconnectedness and mutual dependence of activities in space, and developing a responsible attitude toward space. In this we must be aware that the idea of educating and informing the public to achieve sustainable spatial development can only be slowly realized. According to the teachers that participated in the seminars, there are major obstacles to this: the classes are too large, there is a lack of suitable staff and funding, the curriculum is overloaded, and there is too little fieldwork. In general, however, teachers are convinced that the stated goals will be achieved, despite everything, if the aforementioned topics, methods, and teaching materials can find a place in the standard teacher-education program.

It is necessary to especially emphasize that the purpose of active citizenship in spatial-planning processes is not to educate future spatial planners, but merely users of space that will be aware that their lifestyle has an influence on the living space and environment, and that, as stakeholders, will be appropriately included in the spatial-planning processes.

5 References

- Bayard, B., Jolly, C.M. 2008: Environmental perceptions and behavioral change of hillside farmers: the case of Haiti. *Farm & Business: The Journal of the Caribbean Agro-Economic Society* 7-1. St. Augustine.
- Demšar Mitrovič, P., Resnik Planinc, T., Urbanc, M., Fridl, J., Simoneti, M., Šorn, M., Borsari, M., Demšar Mitrovič, P., Uršič, M., Rihar, J. 2007: R.A.V.E Space: Project final report: raising awareness of values of space through the process of education. Zaključno poročilo projekta, Ministrstvo za okolje in prostor. Ljubljana.
- Demšar Mitrovič, P., Resnik Planinc, T., Urbanc, M. 2007: Geografsko izobraževanje o vrednotah prostora za zagotavljanje trajnostnega razvoja. *Geografija v šoli* 16-3. Ljubljana.
- Fridl, J., Ilc, M., Kušar, S. 2007: Uvajanje vsebin vrednot prostora in prostorskega načrtovanja v učni proces. *Geografija v šoli* 16-3. Ljubljana.
- Fridl, J., Kušar, S., Resnik Planinc, T., Simoneti, M. 2007: Vključevanje vrednot prostora v proces izobraževanja. Kurikul kot proces in razvoj: Zbornik prispevkov posveta. Ljubljana.
- Fridl, J., Urbanc, M. 2008: Kartografski in drugi grafični prikazi kot nepogrešljiva učila pri izobraževanju za trajnostni razvoj. *Geodetski vestnik* 52-4. Ljubljana.
- Fridl, J., Urbanc, M., Pipan, P. 2009: The importance of teachers' perception of space in education. *Acta geographica Slovenica* 49-2. Ljubljana. DOI: 10.3986/AGS49205
- Higgitt, D., Haigh, M., Chalkley, B. 2005: Towards the UN decade of education for sustainable development: introduction. *Journal of Geography in Higher Education* 29-1. Abingdon. DOI: 10.1080/03098260500030272
- Inglehart, R. 1977: *The Silent Revolution: Changing Values and Political Styles Among Western Publics*. Princeton.
- Kasimov, N. S., Malkhazova, S. M., Romanova, E. P. 2005: Environmental education for sustainable development in Russia. *Journal of Geography in Higher Education* 29-1. Abingdon. DOI: 10.1080/03098260500030363
- Kotval, Z. 2003: Teaching experiential learning in the urban planning curriculum. *Journal of Geography in Higher Education* 27-3. Abingdon. DOI: 10.1080/0309826032000145061
- Kušar, S. 2008: Aktualizacija učnih vsebin z vidika vrednot prostora in participacije javnosti v procesu prostorskega planiranja. *Dela* 29. Ljubljana.
- Marentič Požarnik, B. 2005: Okoljska vzgoja ali vzgoja za trajnostni razvoj. *Okoljska vzgoja v šoli* 7-1. Ljubljana.
- Michiko Hama, A., Seitz, M., Sansone, A., Stötter, J. 2005: An environmental education concept for Galtür, Austria. *Journal of Geography in Higher Education* 29-1. Abingdon. DOI: 10.1080/03098260500030371
- Resnik Planinc, T. 2006: Vrednote prostora kot integralni del izobraževanja. *Geografski vestnik* 78-2. Ljubljana.
- Resnik Planinc, T. 2008a: Geographical education and values of space: a comparative assessment from five European countries. *International Research in Geographical and Environmental Education* 17-1. Bundoora. DOI: 10.2167/irgee228.0
- Resnik Planinc, T. 2008b: Vrednote prostora v procesu geografskega izobraževanja. *Dela* 29. Ljubljana.
- Urbanc, M., Fridl, J. 2007: Ozaveščanje o prostoru kot pomemben dejavnik izobraževanja za trajnostni razvoj: primer projekta R.A.V.E. Space. Veliki razvojni projekti in skladni regionalni razvoj, Regionalni razvoj 1. Ljubljana.
- Zimmer, M. R., Stafford, T. F., Stafford, M. R. 1994: Green issues: dimension of environmental concern. *Journal of Business Research* 30. New York.

