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THE POSITION OF FIELD EDUCATION IN THE CURRICULUM OF PRIMARY, SECONDARY AND TERTIARY EDUCATION IN SERBIA

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Table of contents

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Introduction

The teaching process has been increasingly shifting focus on the students' autonomy, training them in using different knowledge resources, connecting knowledge from different fields, practically applying knowledge in solving everyday problems and creating conditions for more diverse and creative student participation in the teaching process. Since one of the key goals of the educational process is to empower students for self-education, the preferred forms and methods of work are those that contribute to a more active approach of students towards the teaching content, establishing a closer connection between the knowledge acquired in classrooms and real life challenges and situations. In this way, students are given opportunities to get to know and study their natural and social environment in different settings.

The objective of the fieldwork experience is to connect the course content to a practical application in classroom teaching. The students will be able to identify and observe/use instructional best practices, lesson planning, lesson delivery, differentiation, assessment, and reflection. After the completion of the course work and the activities specified, the students will be able to identify best practices in teaching and characteristics of effective teachers (https://www.rmc.edu/departments/education/field-work-and-student-teaching).

Field education is characterized by a high degree of adoption of the scientific way of thinking and engaging students in the initial research procedures starting from the observation to the selection and collection of materials. The relevant subject of learning, analysis and deduction in this type of education is what the students themselves have noticed and singled out as valuable for research or as the focus of interest. If we leave the students without a contact with nature, not only will we deprive them of their natural way of learning, but we will also deny them the right to think that they belong to their natural environment.

The factors such as abundant and diverse content that lies in the natural and local environment, the length of stay, joint activities of students, and a chance to perform tasks in teams or independently, all provide ample opportunities for research work - activities inherent in heuristic, problem-based, experimental education, but also an opportunity to adapt the requirements to the characteristics of individual students. The focus of teaching outside the classroom and the research focus (Cvetković, 1992, 117) depend to some extent on the curriculum, environmental characteristics, students' interests, inclinations and abilities, as well as on the material and technical possibilities. The best results are achieved if children independently investigate and gain knowledge through experience.

Greater dynamics and intensity of the teaching process are achieved by students' direct contact with the sources and objects of knowledge in their authentic setting. Considering that learning is an active process in which an individual constructs new knowledge as a result and consequence of their personal efforts, research and endeavours (Golubović-Ilić, 2014), it can be observed that this type of teaching has its theoretical foundation in the constructivist educational paradigm. Learning is 'not seen as a process of acquiring knowledge that exists

independently of the learner, but as a process of constructing knowledge that takes place through interaction with others in a certain socio-cultural context' (Milutinović, 2014, 25).

Geographic content provides many opportunities for fieldwork. The program content generally follows the teaching content, even though it can even go beyond and thus provide a variety of forms and methods of work. Conducting classes outside the classroom depends, above all, on the teacher. In that process, their role is dominant and to what extent and how this type of work will be implemented depends on their personality, expertise and motivation.

The concept, aims and tasks of field education

In the Rulebook on the Organization and Realization of Teaching in Nature and Excursions in Primary Schools ("Official Gazette of RS", No. 30/2019), basic guidelines are provided for the primary and secondary schools in the Republic of Serbia. In both primary and secondary schools, the basic forms of field education are outdoor classes and excursions. In addition to this, teachers have the opportunity to organize their regular classes outside the classroom, in the field, in various facilities that could qualify as teaching facilities.

On the other hand, at the universities in the Republic of Serbia, fieldwork is organized in a somewhat different way.

Students in Serbia start primary school at the age of 6.5-7.5. This is certainly not the first time they have been introduced to fieldwork. In preschool institutions, children also have a chance to get acquainted with their immediate or more remote environment during excursions organized by the institution.

According to the mentioned Rulebook which prescribes closer conditions and regulates important issues for the organization and realization of teaching in nature and excursions in schools ("Official Gazette of RS", No. 30/2019), teaching in nature is a form of educational activities for the realization of compulsory school subjects, elective programs, project teaching and extracurricular activities which are part of the curriculum for the first cycle of primary education – which is organized in a place favourable for its climate, and for health-recreational and educational reasons, while the excursion is a form of education that is realized outside of school.

The goals of teaching in nature are:

- Preservation, encouragement and improvement of the overall health condition of students, their proper psychophysical and social development;
- Creating a basis for adopting an active, healthy and creative way of life and organizing and using free time;
- Expanding existing and gaining new knowledge and experiences about the immediate natural and social environment;

- Promoting environmental awareness and encouraging students to engage personally and collectively in nature protection;
- Socialization of students and gaining experiences in community life, while developing tolerance and responsible attitude towards oneself, others, the environment and cultural heritage;
- Fostering positive attitudes towards national, cultural and aesthetic values;
- Developing the ability to perceive the development of economic potential of the visited region.

The purpose of an excursion is to get to know directly the phenomena and relations in the natural and social environment, to get to know the cultural heritage and economic achievements, in order to perform the educational role of the school ("Official Gazette of RS", No. 30/2019).

Before considering the theoretical aspects of the role and the significance of organizing fieldwork, it should be pointed out that they existed, and even today there have been different approaches in understanding and defining concepts such as school in nature, teaching in nature, education through recreation and more. Whatever the name, based on the definition of these terms, many common characteristics of this diversely named forms of education in the immediate nature can be noticed. In pedagogical practice, the most common name was *education through recreation*, which some authors say is inadequate because it does not include all types of pedagogical work that are otherwise covered by the actual activity.

The most complete definition of the term *school in nature*, which is considered to be the most adequate and comprehensive, was given by B. Stanojlović and S. Simić (1984): this term implies a special type of all-day educational activities with provided accommodation, which are organized outside the place of residence in the natural environment, with a comprehensive pedagogical activity through leisure activities. Educational work is connected with psychophysical recreation in nature, and the realization of the teaching content, determined by the curriculum. Educational work is adjusted to specific conditions of the natural and local environment, and the teaching content are also suited to these conditions in which they can be most successfully realized. The entire educational process takes place under the expert guidance of teaching and extracurricular staff. In this way, the definition of the term school in nature includes all the above concepts which are integrated in the content. Fieldwork is a way of learning outside the classroom that is quite similar to a school in nature. Fieldwork in relation to other forms of work has broad and significant tasks with a high pedagogical level of life and work organization, rich and functional structure. Therefore, the above-mentioned term is considered to be the most appropriate and comprehensive, as it includes all the content that is covered by the actual learning activities in the field.

The tasks of *teaching in nature* are realized on the basis of the curriculum of teaching and learning, educational work and school program and are an integral part of the annual work plan of the school. The tasks that are realized through the program of teaching in nature are:

- Improving the health and developing physical and motor skills of students;
- Satisfying the basic children's needs for movement and play;
- Preserving children's natural curiosity about natural phenomena and encouraging interests and abilities to get to know them through appropriate activities;
- Developing their ability to observe the basic properties of objects, phenomena and processes in their surroundings and to observe their connections with specific natural and social conditions;
- Encouraging independence in the process of acquiring knowledge through direct research tasks;
- Developing awareness of the need to protect, nurture, preserve and improve the nature and the environment and building up ecological habits;
- Getting to know the natural-geographical, cultural-historical sites and the beauty of the place and its surroundings;
- Getting acquainted with the way of life and work of the people in certain areas;
- Getting to know the diversity of flora and fauna in certain areas, noticing their correlations and variability;
- Getting acquainted with the characteristics of the seasons in nature and changing weather conditions;
- Developing coping skills, i.e. orienteering in space and time;
- Training students to be safe and behave properly in the natural surroundings;
- Developing proper hygienic and health habits and encouraging independence in performing personal hygiene and self-care;
- Encouraging and creating the habit of regular physical activity and staying in nature as often as possible;
- Forming the habit of regular and proper nutrition;
- Getting used to follow a schedule of work, rest and sleep;
- Understanding and respecting diversity among individuals;
- Encouraging group work, negotiation and cooperation with peers and adults through appropriate activities.

The tasks of the excursion are: studying objects and phenomena in nature; observation of cause-and-effect relations in specific natural and social conditions; developing interest in nature and ecological habits; getting to know how people live and work in certain areas; developing a positive attitude towards: national, cultural and aesthetic values, sports needs and habits, as well as positive social relations ("Official Gazette of RS", No. 30/2019).

Fieldwork according to its tasks and goals possesses a large number of similarities with *school in nature* and excursions, so all these forms of learning can be considered as interchangeable.

The need and importance of field education

The need and importance of the organization of field education is reflected primarily in the health, pedagogical and social effects.

Health impact. Rapid and dynamic urbanization in our country, especially the development of industry and traffic in highly developed urban environments, in addition to a number of benefits for a better life and work of people, bring many disadvantages and challenges that have to be removed or alleviated.

Negative elements of urbanization and industrialization of cities are especially evident in the following: an increased air and environmental pollution, traffic noise, lack of open areas and greenery, reduced and insufficient options for mobility, insufficient recreational options, and so on. Because of all that, children spend most of their lives indoors.

Because of this, most children spend a large portion of the day indoors even at preschool age (in an apartment or preschool educational organizations), where their main activities are playing games while watching television, video games, computers and more. Certainly, it has a negative effect on the health as well as on the overall psychophysical development of children. In such unfavourable conditions, the child is exposed to more frequent conflicts with family members, which can have especially negative consequences on the psychological development of young people.

In the school environment, children spend most of their activities indoors. Regular classes and school assignments require the child to spend a large portion of the day indoors sitting at a desk, without enough movement. This problem is particularly evident in schools with all-day work schedule, because the school premises and furniture are not suited for this type of educational work, nor do they provide opportunities for more optimal organization of student free time activities.

Due to the lack of green areas, open spaces and playgrounds, children have to spend their free time indoors, in neglected yards or on the streets where they are exposed to other negative influences on their overall development. Therefore, an increasing number of children have deformities of the spine, chest, foot deformities and other physical disorders. It is important to say that almost 5,000 students in primary and secondary schools, more precisely 7.9 percent of them, have some of the visual or mobility impairments, especially younger students. In the past decade, allergic diseases have become more frequent among school children, all because of the fact that they spend less time outdoors in nature (https://www.bizlife.rs/lifestyle/afterhour/23103-sve-vise-dece-ima-deformitete-kicme/).

In addition, air pollution in some urban areas is extremely high. There is a high concentration of toxic gases such as: carbon monoxide and sulphur dioxide, nitrogen oxides and lead vapours generated by the use of motor vehicles.

In such living conditions, children are struggling constantly with harmful environmental factors that damage their health, reduce the body's general resistance and cause damage to the mucous membrane of the respiratory organs, so they often suffer from respiratory

infections. That is why city children are pale, more or less tired, apathetic or irritable, often ill, so it is necessary to take measures to protect their health and improve living and working conditions.

However, in the conditions of increasing industrialization of cities and an increased number of vehicles, it is unreasonable to expect that certain technological processes will significantly reduce air and environmental pollution, and thus change the existing unfavourable living and working conditions of children and adults. Therefore, it is necessary to take various protective measures that would reduce the effect of the mentioned factors. One of the possible solutions is the construction of sports and recreation centres for children and youth in the vicinity of cities and the construction of appropriate facilities to meet the requirements for school in nature. This would create opportunities for schoolchildren to leave the cities occasionally and spend some time in nature, in the fresh air, without interrupting regular classes and schoolwork. All things considered, great opportunities lie in the implementation of the teaching content in the field.

Schools can and should organize recreational classes, not only for the purpose of conducting experiential classes in nature, but also for health reasons, in order to improve and refresh the psychophysical condition of the children, especially those from the city.

The climatic conditions in the area where field learning is organized should provide easier accommodation of children. When choosing a location, it is necessary to take into account the humidity, the number of rainy and sunny days and other meteorological conditions that are important for a pleasant stay and optimal organization of activities in the school in nature. When planning the fieldwork for children, it is necessary to consult a school doctor about the location and adequate time, given the epidemiological situation and the health condition of students, especially those whose health condition requires special treatment.

Pedagogical impact. According to its basic idea and concept, field education has broader pedagogical effects. Field education is organized and takes place in very favourable conditions of the natural environment, as a collective life and work of students and teachers, and thus creates favourable setting for wider pedagogical efforts to foster multitalented personality aspects of young people, especially the development of positive socio-moral aspects, which facilitates more efficient realization of the educational process as a whole. In addition, the conditions in which the life and work of field education are organized provide broader opportunities for more successful implementation of teaching content from a wider variety of educational topics, especially those that require processing in direct contact with the natural and social environment, events and phenomena.

Students learn and experience natural phenomena and laws directly in natural setting and thus enrich their experiences of living and non-living nature, natural phenomena, life and work of people, work results, interconnectedness and dependence of flora and fauna. In this way, they learn to believe that only united by their work and knowledge can they create for themselves a richer, better and more beautiful life.

All these direct observations and experiences contribute to the enrichment of children's experiences through work and activities, and therefore they better understand the phenomena in nature, the laws that govern it, which as a whole contributes to the formation of a correct dialectical-materialist view of the world.

With its diversity, the natural environment contains numerous resources and incentives for further learning, arouses curiosity and develops a spirit of research that contributes to the development of creative abilities and integral development of children as a whole.

Furthermore, field education setting provides a greater opportunity for students to revise and expand the acquired knowledge, and to develop new interests in the practical application of acquired theoretical knowledge in everyday life.

Since ancient Greece and Rome, numerous thinkers and scientists have emphasized the importance of nature in educating young people.

Certainly, this type of pedagogical activity implies changes in the role of the teacher, who becomes less of a teacher, and more of a guide and coordinator. Namely, by applying appropriate pedagogical techniques and properly guiding and directing students, the teacher should provide conditions for greater independence and self-activity of students, encourage desire to learn, and create circumstances for students to gain new knowledge based on direct observation of natural phenomena.

Having in mind the fact that in field education, students actively spend a significant part of their time in a community, the organized life and work in the community of students has a particularly significant pedagogical value. In such conditions, more opportunities arise for getting to know students' personalities in a better and more versatile way, for examining the wants, needs, desires and interests of young people, their problems and difficulties. Certainly, this can contribute to the application of more adequate pedagogical measures and procedures in working with students, and thus to a more efficient organization of the educational work of the school or higher education institution as a whole.

Pupils or students from different families and environments share accommodation, eat under the same conditions, share daily routine, so they live under the same circumstances. This way of life provides an opportunity for children to get to know each other and their teachers in a better way. In a pedagogically correctly directed and guided team, many characteristics of children are manifested, both positive and negative. The characteristics are evaluated and assessed by students and teachers; the positive ones are accepted and the negative ones are alleviated or reduced, which has a special impact on the development of positive socio-moral characteristics and personality traits of a child. Thus, the behaviour and work of children in a community are submitted to the moral scrutiny of the community as a driver of student personality development. In addition, in the collective living and working conditions, children develop their needs and habits to help each other, to take care of each other, to harmonize personal interests with the interests of the community, which greatly contributes to the socialization of young people. Furthermore, common duties, joys, defeats, desires, experiences, bring students closer every day and develop the feelings of friendship and camaraderie, making them stronger as part of a tight and unique team.

Living and working together in a community, provides students with ample opportunities to get involved in self-governing relations, i.e. the concept of student self-governance. For example, students jointly agree on house rules, lifestyle and work, creating menus, determining who is on duty, organizing various actions, competitions, etc. Thus, students participate through practical and everyday activities and get acquainted with the self-governance.

Meeting with the children from the surrounding area, organizing joint events, both within the school in nature and for the local residents, then getting acquainted with the way of life and work of people in the area, their occupations, customs, creating exceptional circumstances for new friendships, a positive attitude can be developed towards working people and the homeland attractions.

The departure of children for field education, separation from the family, getting used to collective life in conditions that are different than their family conditions, contributes to the independence of children, getting used to and training for living and working in changed living conditions. Moreover, by creating opportunities for all students to participate in field education, regardless of their material conditions, the joint life of children from different family backgrounds in the new circumstances, which are the same for all students, contributes to reducing social differences and inequalities in education.

Everyday interconnections and relationships, as well as practical activities such as personal hygiene, tidying bedrooms, dining, maintaining the environment, participation in light manufacturing, nurturing flowers and greenery and humane treatment of animals, provide excellent opportunities for the development and strengthening of cultural, hygienic and work habits, proper attitude towards work, protection and preservation of the environment and love for nature (Nikolić, 1992; Nikolić, 1994).

Social impact. The implementation and the results of field education have justified its existence. Field education has its pedagogical and broader social justifications, since it contributes to the improvement of health and the overall psychophysical development of young people.

The joint collective life of students from different backgrounds and families in the same circumstances contributes to the socialization of young people and especially to the optimal development of the entire population of children, regardless of the socioeconomic conditions of their families, which reduces social inequality and emphasizes special social effects of this type of pedagogical work with students.

The health, pedagogical and social effects and the need to organize field education are clearly evident, and further efforts of the society should be focused on creating optimal conditions for the organization of this important type of pedagogical activity of schools and higher education institutions.

The content of teaching in nature and excursions

The Rulebook on the Organization and Realization of Teaching in Nature and Excursions in Primary School ("Official Gazette of RS", No. 30/2019) also defines the content of this type of teaching and educational work.

The content of teaching in nature is realized on the basis of the curriculum, selecting the most suitable content for achieving the goals and tasks of teaching in nature, which are also the most appropriate ones for the conditions in which teaching in nature is realized.

The contents of the excursion and field education in the first cycle of primary education in the Republic of Serbia are the following:

- Observation of the relief forms and surface waters in the environment and natural-geographical features of the Republic of Serbia;
- Observation of characteristic plants and animals (a tour of plant and animal habitats);
- Visits to protected natural areas (national parks, reserves, natural monuments, etc.);
- Getting to know the history and cultural heritage of the homeland (museum tours, visiting cultural and historical monuments, ethno-villages, memorial houses of famous people - scientists, writers, artists, military leaders, statesmen, etc.);
- Developing orientation skills in space and time;
- Visiting various types of agricultural land and livestock farms (getting familiar with the production of healthy food);
- Visiting companies and public utility companies (processing of natural raw materials, introduction to various human activities, environmental protection, etc.).

The contents of the excursion and field education in the second cycle of primary education in the Republic of Serbia are as follows:

- Visits that get the students acquainted with the natural beauties, natural-geographical and socio-geographical features of the Republic of Serbia (mountains, rivers, lakes, spas, flora and fauna, protected natural objects and national parks, population, people and ethnic communities in the Republic of Serbia, etc.);
- Visits to prehistoric, antiquity, medieval, modern age and contemporary sites (Lepenski Vir, Vinča, Sirmijum, Viminacijum – military camp, Gamzigrad – Royal Palace, Medijana, Studenica, Đurđevi Stupovi, Žiča, Mileševa, Sopoćani, Gradac, Gračanica, Visoki Dečani, Ravanica, Lazarica, Ljubostinja, Manasija, Kalenić, Sremski Karlovci, Krušedol, Novo Hopovo, Vrdnik, the Smederevo Fortress, Golubac, the Niš Fortress, the Petrovaradin Fortress, Orašac, Topola, Ćele-kula, Takovo, Tršić, Brankovina, Vraćevšnica, Tekeriš, Struganik, Šumarice, etc.);
- Visits to Belgrade, the capital of the Republic of Serbia (House of the National Assembly, National Theater, National Museum, the Belgrade Fortress, Observatory, Military Museum, The Museum of the Serbian Orthodox Church, The Museum of the First Serbian Uprising - Konak Kneza Miloša (the Residence of Knez Miloš), Konak

Kneginje Ljubice (the Residence of Kneginja Ljubica), National Library, Royal Court House in Dedinje, City Museum, Avala, Jajinci, Ethnographic Museum, Pedagogical Museum, The Museum of Vuk and Dositej, the Cathedral, the Church of St. Sava in Vračar, Natural History Museum, Botanical Garden "Jevremovac", the Zoo, The Museum of the Yugoslav Cinematheque, The Museum of Nikola Tesla, The Museum of Contemporary Art, etc.);

- Tours of cultural institutions in the Republic of Serbia (Matica Srpska Gallery in Novi Sad, Serbian National Theater in Novi Sad, Književsko-srpski Teatar in Kragujevac, memorial and local museums, memorial houses, etc.);
- Tours of companies and public utility companies (companies dealing with food, chemical, mechanical and electrical industries, construction materials industry, energy, etc.);
- Encouraging the expression of positive emotional experiences ("Official Gazette of RS", No. 30/2019).

Preparations for organizing fieldwork / field education

The preparation of students, parents and teachers is a prerequisite for the realization of teaching in nature, excursions and fieldwork. The preparation of students implies that students get acquainted with the place they go to in advance, the living conditions where field education, excursion or fieldwork is organized, the forms and contents of work, the mode of transport and appropriate behaviour during the trip, necessary books, accessories, clothes, footwear, certain sports and recreational activities that will be realized there.

Students, divided into groups, with the help of teachers, prepare short papers on the areas and places they visit. Special attention is paid to the part of the preparation in which the teacher agrees with the students on the rules of conduct during teaching in nature, fieldwork and excursions.

Preparing parents of primary and secondary school students includes organizing parent-teacher meetings and providing information on the basic geographical characteristics and climatic conditions of the area where teaching in nature, fieldwork and excursions are organized, departure time, length of stay, price, which documentation to be prepared, accommodation facilities, nutrition, health care, living and working conditions of students, opportunities for communication with students, etc.

The obligation of the institution is to give parents detailed instructions on student preparation, with a list of necessary accessories for personal hygiene, writing, necessary clothing, to acquaint parents with the rules of student behaviour during teaching in nature, fieldwork and excursions, and to introduce parents to their legal responsibility regarding student behaviour during that time. In order to collect important information related to the health and psychophysical status of children, their characteristics, specific habits and interests, special parent-teacher interviews are organized.

Teacher preparation includes individual and group preparation. Group preparation takes place in short meetings at the school level, where important organizational issues related to the fieldwork are discussed. Individual preparation of teachers includes becoming well-informed about geographical and geological characteristics of the area, about flora and fauna, historical data, important cultural, economic and other facilities that can be visited, customs and ethnological characteristics of the area and the place where teaching in nature or an excursion will take place.

Based on the collected data and set goals and tasks of teaching in nature, field education or excursions, the teacher creates a program that will be implemented (in addition to the teaching content, the program also has sports-recreational and cultural activities, board games, typical evening programs, etc.), then selects methods and forms of work, determines the dynamics of activities and prepares everything that will ensure efficient and successful work.

The program of teaching in nature, field teaching and excursions should contain a clear structure that indicates the goals and outcomes to be achieved in accordance with the program of teaching and learning.

The school makes action plans which take into consideration the existence of unpredictable factors that can influence the realization of teaching in nature, field teaching and excursions, and possess flexibility and adaptability to the given circumstances, e.g. bad weather conditions, etc. ("Official Gazette of RS", No. 30/2019).

The realization of teaching in nature, field education and excursions

The teacher takes care of the organization and implementation of regular and planned teaching activities, as well as the safety of students during teaching in nature, field education, or excursions. In addition, the individual characteristics of students, differences in their needs and abilities must be taken into account. Teachers should encourage cooperation and teamwork among students, independence and personal responsibility.

Teaching in nature is usually realized in the duration of 7 to 10 days. Field education is organized according to the needs of teaching and the teaching content and for a duration that is optimal for a good understanding and acquisition of the content provided by field education.

In accordance with the purpose and tasks of the excursion and field education, the travel routes, facilities, events, regions and landscapes are determined.

The excursion is performed exclusively on the territory of the Republic of Serbia. For the seventh and eighth grade of elementary school students, an excursion can be organized in the Republic of Srpska.

The study trip is an integral part of the school's annual work plan, which further regulates its organization, goals and tasks.

If the excursion or the study trip is organised during the workdays, make-up classes are organized for all students, in accordance with the school calendar and the annual work plan.

The duration of the excursion is prescribed by the curriculum.

For students of the same grade, the excursion is organized every year in another area of the Republic of Serbia:

1. The Autonomous Province of Vojvodina (Bačka, Banat, Srem);
2. Western Serbia with the Tara;
3. Southwestern Serbia (Zlatibor, Zlatar, Uvac);
4. Central Serbia: Šumadija and Pomoravlje;
5. Ibar-Kopaonik Region;
6. Southern Serbia (Niš-Vranje);
7. Eastern Serbia with the Djerdap;
8. Belgrade and the surroundings.

The director of the institution is responsible for the legal matters regarding the implementation of teaching in nature, excursions and study trips ("Official Gazette of RS", No. 30/2019).

Field education in Serbia

Field education in Serbia is an integral part of learning at all levels of education. Field education in Serbia is important for a large number of school subjects, both from the group of natural sciences and from the group of social sciences. As interdisciplinary elements in learning are increasingly sought after, learning outside the classroom is planned to be useful for more subjects and to cover more areas. By learning in the field, students get acquainted with natural and social values, cultural and historical heritage and acquire broad and diverse knowledge.

Field education in the curriculum of primary education in Serbia

In the first cycle of primary education, teachers usually opt for the following facilities: Mitrovac on Tara, Stanišinci on Goč, Bukulja in Arandjelovac, Rudnik on Rudnik, "Stevan Filipović" on Divčibare, and others. All these facilities belong to the Centre of Children's Summer Resorts of Belgrade and are also used for teaching in nature, as well as for camps that are realized during summer and winter holidays. In addition to thematically equipped classrooms, entertainment halls, sports fields, swimming pools, ski slopes, all facilities have outpatient and twenty-four-hour health care. Educational excursions, walks, evening programs are organized in all these resorts (http://www.cdlbgd.rs/nastava-u-prirodi.html).

In senior grades, classes outside the classroom are more often organized in the local environment. In addition, places suitable for the realization of the excursions are: Tara, Zlatibor, Gornji Milanovac and others. The situation is similar in high schools, where destinations outside the borders of the Republic of Serbia used to be chosen more often until recently.

A research was conducted in the school years 2017/2018 and 2018/2019 among primary school teachers and it referred to the realization of teaching in nature on the territory of the Republic of Serbia. A total of 406 teachers participated in the research. The results analysis showed that teaching in nature is not implemented to a sufficient extent.

The research used the Likert scale of attitudes (from 1 to 5; with 1- Completely Disagree and 5- Completely Agree), where the attitudes of teachers regarding the organization and implementation of fieldwork can be seen very clearly. A total of 15 statements were presented to the teachers. Based on the mean values of the answers, one claim stands out - that in this type of teaching, professional staff should be involved to be in charge of numerous accompanying activities (primarily related to the organization). If more professional people are not included in this type of teaching, it is very difficult for one teacher to meet all the requirements that are expected of them.

The lowest grade was assigned to the claim that little is learned in the field, and that the realization of compulsory teaching activities is neglected in order to implement only the program of entertainment and recreation. This clearly indicates that teachers feel that they devote a large part of their time to the teaching content that is adequate in the given circumstances.

The results of the research by gender are interesting. Female teachers are more dissatisfied with the facilities used for the implementation of fieldwork, but unlike male teachers, they believe that in Serbia there is a vast choice of locations for the construction of the facilities for the school in nature. Female teachers see the lack of appropriate professional literature as a bigger problem both in the organization and in the realization of this type of teaching. Regarding the claim that teachers are not sufficiently trained, the answers of both genders were almost identical, but it can certainly be concluded that they themselves are not sure whether they are fully ready to perform this type of fieldwork (mean score of this claim is 2.5). In most of the claims, teachers of both genders are fairly consistent, so that, in addition to the above, there is no major difference in attitudes regarding the organization and implementation of fieldwork.

If we look at the results in relation to where the school is located - city / village, we also see a fairly uniform attitude in most claims. However, it must be noted that teachers working in rural areas rated more highly the claim that there are major problems with the organization of fieldwork. This clearly indicates that the requirements regarding the organization, from the school itself to agencies and other actors, are far more accessible to teachers working in urban areas.

Teachers who do not teach outside the classroom are more in agreement with the statement that the success of fieldwork largely depends on the legal norms. This may be one

of the reasons why they do not implement such type of teaching, because based on experience it is evident that this type of teaching requires the flexibility of teachers and all other actors in each stage of achieving the goals and tasks of teaching in nature. This is corroborated by the attitude of teachers who do not take students to school in nature that there are big problems in organizing it. Those who organize it, however, do not think that there are major problems in the organization. Teachers who do not implement fieldwork have strong attitudes towards the following:

- Accommodation facilities for students are most often intended for tourism and do not meet other standards;
- Improvisation is ubiquitous;
- The organization requires more efforts from teachers;
- Program contents must deviate significantly from the regular curriculum;
- Teachers are not sufficiently trained;
- Lack of appropriate literature;
- Fieldwork poses a significant burden on the student's family budget...

The t-test of independent samples was applied in order to compare the arithmetic means of two population groups. A statistically significant difference between the respondents' answers by gender, as well as by workplace was not observed in any of the given statements (at the level of significance $r < 0.05$). This clearly shows that the differences between teachers' responses by gender and the impact of different workplaces (urban and rural areas) have not been confirmed.

However, if we compare the answers between the teachers with the experience in taking students to schools in nature and those who do not practice this type of teaching, we can see some differences. Teachers who do not implement fieldwork have a much more flexible attitude towards the claim that fieldwork should have an exclusively teaching-educational character. Moreover, they believe that they as teachers are not sufficient for the realization of this type of teaching and that they need additional help of professional staff.

Teachers do not think that there is little learning in nature, but there is certainly a noticeable difference between their answers and the answers of those who realize the school in nature and who have expressed a much higher degree of disagreement with the aforementioned statement.

Teachers who do not have experience in fieldwork believe that the curriculum has to deviate from the curriculum in regular classes. It seems that teachers with experience are quite good with the realization of the planned teaching content, and they have expressed a greater disagreement with the mentioned statement.

The application of one-factor analysis of variance, ANOVA, was used to examine statistically significant differences between dependent variables (items related to respondents' attitudes) and independent variables (respondents' social characteristics). In this

case, it was examined whether there are statistically significant differences among respondents with different length of work experience.

As only three of the fifteen statements have a statistically significant difference, it is considered that the length of work experience does not affect the attitude of teachers regarding the organization and implementation of fieldwork. However, teachers with more work experience (over 16 years) expressed greater disagreement with the claims that they are not sufficiently trained for school in nature, that there is no appropriate literature, and that little is taught in school in nature.

In order to more fully investigate the attitudes of teachers towards learning outside the classroom, a survey was conducted with open-ended questions, where teachers had the opportunity to enter longer answers and to more elaborately explain how they teach outside the classroom. Due to the fact that the survey was open and for easier and clearer interpretation of the results, there were 10 teachers in the sample group. The research was conducted in the school year 2019/2020. The average age of the respondents is 42.9 and the average length of work experience is 15.5 years. Among the respondents, 60% have completed bachelor and 40% master studies. All respondents are employed full time (20 classes per week) in the subject of geography. On average, they have 3 classes of additional school activities per week.

A total of 80% of respondents became well-acquainted with the importance of field education during their studies and the same portion of respondents applies the methods of fieldwork in teaching geography. Most teachers agree that the main advantage of learning outside the classroom is the immediate evidence of phenomena which can be observed directly in nature, which facilitates knowledge acquisition, and thus the knowledge becomes more solid and interdisciplinary correlations can be established. Among the biggest shortcomings of field education, teachers mentioned numerous financial and organizational constraints as well as weather conditions, but also the lack of interest in this way of learning among both teachers and students. When teachers are asked about the barriers to the implementation of field education, they most often mention financial issues, lack of teaching aids and the distance of the facilities important for field education. Most teachers confirmed that they conduct learning outside the classroom in correlation with other school subjects and that they do so in a variety of places such as museums, observatories, fairs, exhibitions, planetariums, national parks…

The teachers stated that, with the students of the 5th grade, the teaching content that they mostly cover outside the classroom is related to the universe, atmosphere, climatic elements and the Earth's sphere. They use a telescope, instruments for measuring climate, mini meteorological stations and maps as teaching aids and often dedicate several classes to this kind of work. Field education in the 6th grade is related to the geographical map, population and settlements. Teachers use a compass, a geographical map and objects from nature as teaching aids and often dedicate several classes to this kind of work. In the 7th grade, teachers teach outside the classrooms regional geography topics, where geographical maps, textbooks and encyclopaedias are most often used as teaching aids, and it takes several teaching hours to process the material in this way. Teachers have stated that in the 8th grade,

students are introduced to the geography of the local environment, and that is when learning outside the classroom is most frequent. Teachers then take students to facilities that are easily accessible to them, and they carry out this type of work several times during the school year. In the 8th grade, due to the diversity of places throughout Serbia, students can get acquainted with a variety content outside the classroom. When learning outside the classroom in all grades of primary school, teachers believe that students are much more active and that this type of work requires teachers to prepare more thoroughly.

Field education in the curriculum of secondary education in Serbia

In the high schools of the Republic of Serbia, the goal of an excursion is to get to know the phenomena and relations in the natural and social environment, to get to know the cultural heritage and economic achievements, with the purpose of fulfilling the educational role of the school. The tasks of an excursion are realized on the basis of the curriculum and the educational plan, and are part of the school program and the annual work plan. The excursion program should contain a clear structure that indicates the goals and outcomes in accordance with the program of teaching and learning to be achieved. The school makes operational plans which take into consideration the existence of unpredictable factors that influence the realization of an excursion, have flexibility and adaptability to the given circumstances, e.g. bad weather conditions and the like.

As a rule, the excursion is carried out on the territory of the Republic of Serbia, and once during the schooling it can be organized in the Republic of Srpska. Exceptionally, for the final grade students, an excursion can be organized abroad.

The school can also plan a study trip for a group of students in order to learn the language and learn about culture, within the cooperation projects and other forms of educational work, which is carried out with the prior consent of the relevant school administration. The study trip is an integral part of the annual work plan of the school, which regulates in more detail its organization, goals and tasks ("Official Gazette of RS", No. 30/2019).

After the trip, the tour leader and the representative of the travel agency make a note on the trip, after which the professional tour leader makes a report within three days, which is then submitted to the director, with an assessment of the performance and quality of provided services. Therefore, the teacher who accompanied the students will talk about the realized excursion with the students together with them in one of the following classes. During that class, they discuss the completed tasks and check the fulfilment of the outcomes.

The research, which was conducted with primary school teachers, was also done with the teachers who are employed in secondary schools. There were also 10 teachers in this sample group. The research was conducted in the school year 2019/2020. The average age of the respondents is 40, and the average length of work experience is 12.4 years. Among the

respondents, 50% have completed bachelor studies, 40% of them master studies and 10% doctoral studies. All respondents have 20 geography classes per week, and 40% of them spend up to two classes in additional teaching activities.

All respondents stated that they were well acquainted during their studies with the importance of learning in the field, and half of them apply the methods of field work in teaching geography. Most teachers agreed that learning outside the classroom has the main advantage of the immediate evidence and the possibility to observe phenomena directly in nature, which makes it easier to acquire knowledge, establish a cross-curricular correlation, students are more open and communicate more directly with teachers. Among the biggest shortcomings of field education, teachers mentioned the lack of resources and difficulties in maintaining students' attention. When asked about the barriers to the implementation of field education, the most common answers given by the teachers were financial problems, lack of teaching aids, a large number of extracurricular activities for high school students and student workload. The majority of teachers (60%) gave a negative answer to the question whether they conduct learning outside the classroom in correlation with other subjects. Places such as museums and observatories are used for learning outside the classroom.

For teachers who teach in the first grade of high school, most of the teaching content outside the classroom is related to the Earth in space, relief, man and climate. For this, they use various teaching aids, visit observatories and natural history museums and often dedicate several classes to this kind of work. As part of the field teaching in the second grade of high school, teachers conduct lessons related to geographical maps and digital cartography. For that, the teachers use a compass, a geographical map, GPS devices and objects from nature as teaching aids and often dedicate several courses to this kind of work.

In the third grade of high school, due to the diversity of areas throughout Serbia, students can get acquainted with a variety of content outside the classroom. The lessons about population are especially suitable. When learning outside the classroom in all grades of high school, teachers believe that students are much more active and involved in teaching and that this way of working requires detailed teacher preparation.

Field education in the curriculum of tertiary education in Serbia

There are three faculties in the Republic of Serbia where future geographers are educated and they are based in Novi Sad (Department of Geography, Tourism and Hotel Management at the Faculty of Sciences), Belgrade (Faculty of Geography) and Niš (Department of Geography at the Faculty of Natural Sciences and Mathematics). Within their accredited study programs, the realization of field education is also planned.

The task of fieldwork is that students observe geographical objects and phenomena, their interconnections, industrial facilities, settlements and landscapes directly in the authentic setting and thus gain clear perceptions, long-lasting observations and real-life

factual knowledge that will help them better understand theoretical content. Different methods are used in field education: direct observation of geographical reality, research conversation, educational conversation, presentation, explanation, description, etc.

The fieldwork route is such that it facilitates the acquisition of basic concepts from a number of courses that students will encounter during their studies. Thus, through expert analysis of mountains, loess plateaus, river terraces, alluvial river plains and other elements, they acquire basic knowledge of geology and geomorphology. Through observing and analyzing watercourses, lakes, ponds, swamps, applicable knowledge of hydrology is acquired. Through studying the flora and fauna in the field, more practical aspects in biogeography teaching are promoted together with its connection with land and other elements and factors of the natural environment. Within the framework of social geography, the knowledge of the population, settlements, economy and other elements is directly acquired. In addition to the fact that field classes have a thematic character, which means that they include the content from a specific branch of science, this content also has a regional geographical character because it provides a complex observation of certain regions. This aspect of field education contributes to learning thoroughly about the space with all its constituent elements and their interdependence.

At the **Department of Geography, Tourism and Hotel Management in Novi Sad**, fieldwork is implemented during the entire studies in the curriculum of the study programs BSc in Teaching Geography, BSc Geography and Master of Science in Teaching Geography.

Fieldwork for Master of Science in Teaching Biology and Geography is conducted partly within the curriculum of the Department of Geography, Tourism and Hotel Management, and partly within the Department of Biology and Ecology where it is included as an elective course in the curriculum.

In the first year of study, fieldwork for all study programs is organized in Vojvodina, in the second semester, and lasts 3 to 5 days.

In the second year of study, field education for the study programs BSc Teaching Geography and BSc Geography is organized in the area of Western Serbia (in the fourth semester, lasting 4 to 6 days).

In the third year of study, for the study programs BSc Teaching Geography and BSc Geography, field education is organized in the area of Eastern Serbia (in the sixth semester, lasting 4 to 6 days).

In the fourth year of study, field education for the study programs BSc Teaching Geography and BSc Geography is organized in Central Serbia, Montenegro and Bosnia and Herzegovina.

Knowledge assessment acquired in field classes is done through the courses Fieldwork 1-4, in the form of oral and / or in written knowledge tests, students receive grades and achieve 3 ECTS in each course.

For the study programs of all master's academic studies, field education is also organized in the summer semester, lasting from 5 to 7 days in the territory of the Republic of Slovenia.

The knowledge test is performed within the course Field Teaching 5, where they also achieve 3 ECTS.

At the **Faculty of Geography in Belgrade**, fieldwork is related to certain courses, as follows:

In the first and second year, the focus of field classes is on the physical-geographical characteristics of the area, so they are organized twice in the duration of one day in the first year (through the courses of Paleogeography and Dynamic Geomorphology) and once in the second year in the duration of one day through the course of Speleology).

In the third year, field classes are organized in the area of Stara Planina for 3 days. In these field classes, in addition to visiting some natural attractions, the emphasis and special attention is given to the elements of social geography. Also in the third year, field classes in the duration of 3 days are organized in the area of South-western Serbia (Stari Vlah and Raska), where the emphasis is on regional-geographical content. In the third year, students have the opportunity to experience field classes in Western Serbia, where the emphasis is on socio-geographical content.

In the fourth year, field classes are organized in the continental part of Montenegro for 5 days, with an emphasis on regional-geographical content.

Through the courses Field teaching 1-3 (summer semester in the second, third, and fourth year), students achieve 2 ECTS.

Field education is not organized at the master level of academic studies.

At the **Department of Geography in Niš**, field education is carried out according to the established curriculum in basic academic studies and master's academic studies. At the end of each year of study, under the guidance of teachers and teaching associates of the faculty, during the month of May, field classes with students' practical work (practical classes) are planned.

In the first year, field classes are organized in the area of Šumadija for 2 days.

In the second year, field classes are organized in the area of Eastern Serbia for a period of 3 days.

In the third year, field classes are organized in the area of Western Serbia for a period of 3 days. By attending field classes, students have the opportunity to get acquainted with some physical-geographical objects and phenomena in nature about which they have previously acquired theoretical knowledge.

For students of master's academic studies, field classes are organized in the area of Vojvodina for a period of 3 days.

Conclusion

Traditional education and the concept of school as an institution whose sole purpose is education or teaching cannot fully meet the modern needs and the requirements of modern society in the 21st century. Changes in the school system in Serbia, improving its quality and preparing students for the roles and relationships that await them in life, are of interest not only to experts and theorists working in this field, but also to people who are aware of the importance of this segment of life and who want a better future for their children. Because of the importance of schooling, which provides not only knowledge, upbringing and habits, but a whole open system that functions in harmony with the society, it is very important that the current evolution of the school takes place in the greatest possible alertness and dedication of all those responsible for school development.

One of the basic starting points in the education reform is the study and application of facilities where the teaching takes place. From the Middle Ages until today, teaching facilities have been the subject of criticism by many reformers of the school and the school system. As the school itself and school systems change and evolve, so the approach to the facilities in which classes are held becomes a fertile ground for proving various theories in education and their practical application.

Through fieldwork students in Serbia can learn to independently construct knowledge, to learn in their own way and thus become active in the educational process, and not just mere observers. By acquiring knowledge in appropriate facilities outside the classroom, children become independent, gain self-confidence and plan the process of acquiring knowledge on their own.

Research in Serbia shows that teaching content that is closely related to the natural and social environment is still not sufficiently organized in appropriate facilities and moved from the classic classroom to real life or more purposeful facilities within the school, but that the classroom occupies a central place in content processing, in the function of getting to know the world around us. There is a clear need for greater functional connection between the content of teaching and teaching facilities (outside the classroom). It goes without saying that a large number of teaching topics, both in geography and in other school subjects, can be processed in a completely acceptable and good quality way in the classroom, using various models, audio and visual aids, but this type of teaching requires much more preparation and engagement on behalf of teachers, and the achieved results will be the same or worse than if the classes were organized in a more adequate facility.

It is possible that some teachers do not have the access to using other teaching facilities at a given time, but there is also their unwillingness and inertia to organize teaching more actively and move it to other teaching facilities. It can be concluded that learning outside the classroom is significantly more present in primary education than in secondary education. Teachers believe that one of the main reasons for that is a large number of high school subjects, but also extracurricular activities of high school students and a lack of time due to the students' workload.

Fieldwork requires significantly greater teacher preparation, but this fact should not be used as an excuse for not applying teaching outside the classroom. This type of teaching should be thoroughly planned at all levels of education - primary, secondary and higher.

The Republic of Serbia is rich in diverse places for field education and in the following period it is necessary to make a more thorough classification of them at several levels – by type of education, by specific course content and by specific geographic regions.

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