# **ARTICLES**

# CONTENTS OF THE BIOLOGY COURSE IN EXTRACURRICULAR ACTIVITIES OF PRIMARY AND SECONDARY SCHOOLS IN OLOVO MUNICIPALITY

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#### ABSTRACT

# Contents of the Biology Course in Extracurricular Activities of Primary and Secondary Schools in Olovo Municipality

Extracurricular activities of the pupils are particular and specific educational work with students, organized not as a teaching part of school but it is organized on the principles of free choice of the pupils. The aim of the research was to analyze the curricula for primary and secondary schools (for biology as a school subject) and to develop instruments to evaluate the degree of representation of extracurricular activities with the biology curriculum in elementary and secondary schools in Olovo municipality. The students from the sixth to the ninth grade of Primary School "Hasan Kikić", Primary School "Olovo" and high school students of "Musa Ćazim Ćatić" High School who attended the subject of biology participated in this research. The research includes the survey methodology and total of 408 students were surveyed. Participation in extracurricular activities has led the student to expand knowledge, mostly in the field of zoology, about diseases (causes, treatment and prevention), ecology and environmental protection, to build a more positive relationship with society and the environment, all with the help of a well-trained teacher who accomplishes good communication with students, whose traits have been slipped during the survey.

#### KEY WORDS

Extracurricular activities, Biology, survey, Olovo.

#### 1.Introduction

Nowdays the educational system strives to activate students as much as possible, both in the education processes and in society. Puževski (2002) states the basic characteristics of the operation and existence of a modern school: engagement by setting up and directing its entire sociopedagogical construction in order to enable the fullest possible development of the young man, openness in order to socialize education and transform it from a closed university into a socially and pedagogically open institution and self-government as a degree of democracy that introduces, prepares and educates students for democratic behavior in self-government practice.

Extracurricular activities of students are a special and specific educational work with students that is organized outside of classes on the principles of free choice and student self-government. Extracurricular activities are various organizational forms of gathering students in their free extracurricular time at school, which have predominantly cultural and artistic sports, technical, recreational and scientific (educational) characteristics. With them, students satisfy their creative and recreational needs, and especially acquire a culture of free time. Extracurricular activities enable creative activity of students and teachers and significantly contribute to the overall realization of educational tasks. However, extracurricular activities should not be identified with leisure activities because they are still not free from the obligation of school work, requirements and the necessity of execution (Previšić, 1987; Previšić, 2000).

Therefore, they as such are not in accordance with the classical definition of free time, which speaks of time given to an individual. However, unlike regular classes, extracurricular activities still provide the opportunity to respect students' interests and needs, freedom of creative activity, and open the way to individual development and initiative of students. Therefore, extracurricular activities should be based on freedom of choice, voluntary involvement, and the satisfaction of engaging in a particular activity that ensures the personal development of students. The meaning and work of extracurricular activities, including extracurricular ones, is not only in providing opportunities for the gifted, but also in encouraging them to enable and create conditions for as many students as possible to get involved in various organizational forms in which they will find meaning and satisfaction (Mlinarević & Brust, 2009).

In Bosnia and Herzegovina there are mainly two sections in schools: the section of young naturalists and the section for the protection and improvement of the human living and working environment (Bašić, 2001). The goal of extracurricular activities is to encourage students to discover new knowledge, master and voluntarily engage in content and creative processes according to

64

their own needs and interests that are further developed and improved (Jurčić, 2012), and can be achieved only if all participants in the processare satisfied. Examining students' wishes and needs before deciding on the curriculum of extracurricular activities as well as providing opportunities for students to create a curriculum is a prerequisite for the success of extracurricular activities. Experts agree that extracurricular activities have a positive impact on students. Massoni (2011) highlights several positive impacts of extracurricular activities on students: 1. They have reduced behavioral problems and are performing their duties responsibly. 2. They have better grades, a more positive attitude towards school and high self-confidence. 3. Completion of school - students involved in extracurricular activities are less likely to be expelled from school, and are more likely to have higher academic achievement. 4. Encourages them to actively participate in the community as children and later as adults.

Wilson (2009) agrees and says that the advantages of participating in extracurricular activities include: better grades, better results in standardized tests, a higher level of education and a more positive self-perception. Extracurricular activities achieve goals and tasks that cannot be achieved in regular classes. The contents, methods and forms of work that follow modern events and knowledge, interests and needs of students and leaders of extracurricular activities are jointly selected (Mlinarević & Brust Nemet, 2012).

The aim of the research was to analyze the extracurricular activities in primary and secondary schools (for the subject of biology) and to develop instruments that can be used to assess the degree of those activities with the contents of the subject of biology in primary and secondary schools in the municipality of Olovo. In this way it is possible to obtain information on how developed awareness of the importance of extracurricular activities is in the field of biology among children in primary and secondary schools in the municipality of Olovo and how many children are involved in extracurricular activities.

### 2. Methods

The research was conducted in May, in the school year 2017/2018in primary and secondary schools in the municipality of Olovo. After obtaining the consent for the research from the Ministry of Education, Science, Culture and Sports in Zenica-Doboj Canton, written consent was requested from the parents for surveying children in schools, which was also ordered by the competent Ministry. The research, using the survey method, included all students from VI to IX grade in the primary schools of the elementary school "Hasan Kikić" and the elementary school "Olovo" and high school students MSS "Musa Ćazim Ćatić" who have a Biology subject.

65

A total of 408 students were surveyed divided into 27 classes (19 classes in primary and 8 classes in secondary school). A total of 303 students were surveyed in elementary schools and 105 in secondary schools. Among surveyed students 219 were females and 189 males (Tables 1 and 2).

Table 1. Number of surveyed students by school and sex.

Sex	Primary school	Secondary school	Total
F	155	64	219
M	148	41	189
Total	303	105	408

Table 2. Number of surveyed students by grades.

School	6th	7th	8th	9th	1st	2nd	3rd	4th
ES "Hasan Kikić"	21	33	40	35				
ES "Olovo"	30	46	53	45				
MSS "Musa Ćazim Ćatić"					47	33	9	16
Total	51	79	93	80	47	33	9	16

The survey was used to collect data in the schools, which served to meet other goals and objectives of this paper. Closed-ended questions were used in the development of the questionnaire. Closed-ended questions are those where one or more of the offered answers had to be selected. Survey research determines and describes the characteristics of the group, using a survey in the described form or through interviews and gives a lot of data from large samples. Three main problems arise in the research: clarity of the question, honesty of the respondents, rate of return (Preglej, 2014). The survey for students contained 12 questions, and after the survey, statistical data processing was performed using the statistical program Excel 2016 and Microsoft Word 2016.

#### 3. Results and Discussion

At the beginning of the research, an analysis of pedagogical documentation was performed. The most reliable source are the Curricula for primary and secondary schools in Zenica-Doboj Canton, and the school documentation has been inspected. The subject of biology in primary education is represented from the sixth to the ninth grade. The survey of students and teachers in primary schools was conducted in the elementary school "Hasan Kikić" Solun (central school in Solun and regional school in Careva Ćuprija) and elementary school "Olovo" in Olovo. In the high school MSŠ "Musa Ćazim Ćatić", the survey was conducted

in classes from 1<sup>st</sup> to 4<sup>th</sup> grade of high school, 2<sup>nd</sup> grade of Agricultural-Technical School and 1<sup>st</sup> grade of Vocational School of Service Activities. By analyzing the content of extracurricular activities in primary and secondary schools in the municipality of Olovo, it can be concluded that the following sections are represented: Ecological section, Hiking section, First Aid and Environmental Protection.

The results of the research show that almost half of the surveyed students are members of some of the extracurricular activities in their school (189 out of 408), which is relatively good, given the importance of extracurricular activities in the development of students' competencies (Figure 1).

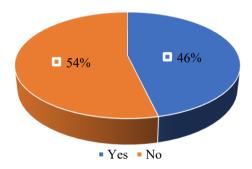


Figure 1. Ratio of surveyed and included students in extracurricular activities.

A large number of students, as many as 97 (22%), of whom 80 are elementary school students, are involved in Red Cross activities. The reason for this information is the great activity of Red Cross volunteers in the field, so it has become a tradition when it comes to volunteerism and cooperation with the organization of the Red Cross in the municipality of Olovo. In second place are the activists of the First Aid section with 49 members (11%), and in third place is the Hiking section with 41 members (9%). Other sections have a very small number of members.

That students expand their knowledge in certain areas of science is also shown by the fact that 189 students (40%) gave the answer that they engage in certain free activities due to interesting programs within the section. A large number of students, as many as 116 (24%), believe that they do not have time to engage in leisure activities, because they are overburdened with regular classes. It is important to note that 8% of students opted for certain sections because of the teacher's recommendation, 38 of them (8%) because of the parents' recommendation, and 28 (6%) because the sections are led by an excellent teacher. However, 105 (26%) students believe that engaging in extracurricular activities can fully help them develop their abilities to the maximum, which regular classes cannot provide.

More than a third of the respondents (145 or 36%) are of the opinion that they can achieve all this only sometimes, and the same number of them gave the answer that they achieve it during regular classes. The work of the section also requires adequate work space. The majority of students (161 or 40%) answered that the lessons of the section are held in the classroom. 82 (21%) students who do not participate in extracurricular activities stated that extracurricular activities take place in premises that do not have working conditions.

However, 62 (16%) students who do not participate in extracurricular activities, but in conversation with their friends who attend extracurricular activities, found out that extracurricular activities are held in spaces required by the topic of extracurricular activities. Only 12 (3%) students believe that extracurricular activities are performed in specialized spaces. This information gives us the task to dedicate as much as possible to equipping schools and providing adequate working conditions for both students and teachers.

The answers to the previous question confirmed the assumption that schools need positive changes that require better equipping of school premises. Most students (151 or 33%) answered that they were not satisfied with the equipment for performing extracurricular activities, while 119 of them (22%) were partially satisfied. Students who do not participate in extracurricular activities (107 or 33%) believe that their friends work in conditions where the equipment is of poor quality, there is little and it is outdated.

Data from the answer to the tenth question showed that students feel cooperative (149 or 30%), competitive (94 or 19%) by participating in extracurricular activities, and 130 (27%) students answered that they do not participate in extracurricular activities, but that their participating friends have positive experiences. That they are hard on extracurricular activities, the answer was given by 9 students (2%).

Analyzing the assessment of the work of teachers who lead extracurricular activities, by students, 167 of them (18%) answered that he is well prepared and organized, establishes good communication (100 or 11%), simply presents the material and teaches (79 or 9%),brings humor and fun to teaching (60 or 7%). Students who do not participate in extracurricular activities (114 or 12%) answered that teachers who lead extracurricular activities, according to the experience of their friends, have contributed to the expansion of knowledge.

Out of a total of 617 answers received, students participating in extracurricular activities believe that they have acquired the most knowledge in the field of zoology, about diseases (causes, treatment and prevention), ecologyand environmental protection (Figure 2).

Students who do not participate in extracurricular activities (125 or 20%) feel that their friends who participate in extracurricular activities have expanded their knowledge and built a positive attitude towards the environment.

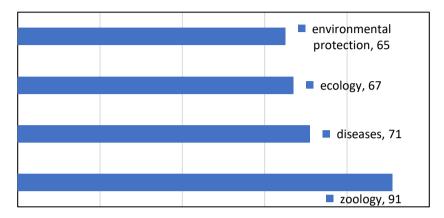


Figure 2. Number of students who acquired knowledge in different areas of Biology.

The area of extracurricular activities with biology content is an area where more work should be done so that students engaged in extracurricular activities can explore more, which includes museum visits, field trips, field trips and various projects. When it comes to teacher assessment by students, it can be seen that students are satisfied with the organization, the way knowledge is transferred, and the overall attitude of teachers towards students. Students are aware of the positive side of involvement in extracurricular activities, because they have made personal progress in communication, made progress in relation to the environment, society, expanded knowledge and improved physical activity.

Students who do not participate in extracurricular activities themselves believe that their friends have made progress in expanding their knowledge and completing their positive attitude towards the environment. The results of the survey show that both students and teachers believe that students have expanded their knowledge of ecology, environmental protection, zoology, diseases, anthropology, physiology and anatomy and morphology.

# 4. Conclusion

Analyzing the answers of the surveyed students, we can conclude that almost half of them are involved in certain extracurricular activities in their schools. The largest number of students is involved in traditional movements in the municipality of Olovo, such as the Red Cross, or First Aid that exists within this organization.

The results also showed that students are most involved in extracurricular activities because of the interesting content that they realize within them. A large number of students believe that extracurricular activities should take place in specially designated rooms and not in classrooms. The most students develop cooperation with others in extracurricular activities. The results of the survey also showed that students expanded their knowledge from different areas of biology in extracurricular activities. The positive impact of extracurricular activities on students has been proven in all areas. Students who attend extracurricular activities have better grades, less problematic behavior, and finish school more (Massoni, 2011; Wilson, 2009). Their competencies are more developed, they are encouraged to think critically and act according to their own opinion. Along with the student, the teacher is the main co-creator of extracurricular activities. Through his professional development and the development of competencies, teacher helps the development of students' competencies and their personal development. In order to achieve this, it is important that every teacher, after the initial, continues lifelong learning and passes on to their students the importance of lifelong learning. In addition to being a facilitator, the teacher is also the creator of the atmosphere in extracurricular activities. It is very important for students that the atmosphere during extracurricular activities is pleasant because then they will prefer to get involved in extracurricular activities.

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