

**OPINIONS AND ATTITUDES OF STUDENT TEACHERS TOWARDS TEACHING
OUTSIDE THE CLASSROOM**

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Abstract: Tuition is the basic determinant of didactics. It represents an organized institutional and non-institutional interactional creative effort to master the prescribed content and to acquire knowledge, skills and habits and to train pupils / students for further permanent work. Classes outside lectureroom are a direct way of studying, teaching and understanding of teaching contents and their causal relationships. They open wide possibilities for dynamic exchanges of learning and the creation of learning contexts. The aim of the research is to establish and explore the recognition of the elements of the teaching classes outside lectureroom. Participants in this research study (following practical activities entitled: "Planting and Landscaping in the Immediate School Environment, i.e. in the Faculty Yard") into connecting theoretical teaching contents and tuition outside classroom were 1st-year students studying to become primary school teachers (N=51). The survey was anonymous and it was conducted immediately after the practical activities. Answers were processed by a qualitative analysis. Regardless of the students' and teachers' satisfaction, there are problems in implementing and achieving the basic goals of this type of teaching. The results show that 1st-year students have insufficiently recognized the elements of outside lecturoom teaching, which is due to insufficient representation of this kind of teaching in their previous education.

Keywords: environment, students, teaching outside classroom, teaching contents, teacher.

Introduction

In pedagogical literature, you can find various terms for outdoor education: in Italy this is called "Scuola all aperto", in France "Ecoles de plein – air", and in England and the USA "Open Air Schools" (Skok, 2002.), "Field Work", or "Outdoor Teaching". "Field Work" or "Outdoor Teaching", in Croatian "izvanučionička nastava", is pedagogically effective and interesting in contemporary education, because all teaching that is being done outside the classroom, any form of teaching (a visit, short trip, excursion, teaching in nature) represents outdoor education.

Teaching and education by means of research is a direct way of studying, teaching, and understanding of science in students. Many pedagogues, such as J. A. Komensky (1592. – 1670.), J. Locke (1663. – 1704.), and J. J. Rousseau (1712. – 1778), emphasized the need for linking teaching with the students' environment (Kiš-Novak, 2015).

One of the most prominent pedagogues in Croatia, Stjepan Basariček (1848. – 1918.) says: "Let them go through the fields and forests, hills and valleys, factories and workshops, to see how things are, how work is done, how a farmer plows, sows and reaps, how a carpenter cuts, etc." (De Zan, 1999; Kiš-Novak, 2015). Main pedagogical aims of outdoor education, i.e. teaching outside the classroom, are:

- relating and application in practical work; dealing with new studying conditions;
- getting learners used to outdoor teaching; learning about potential danger factors
- and learning about methodology of approach and challenges for successful business ventures in their own profession.

Methodology

The aim of this research was to identify and examine opinions and attitudes of teacher students on implementation of outdoor teaching in their previous education.

The hypotheses are:

- H1 The students have a positive opinion about outdoor teaching.
- H2 The students recognize educational values of outdoor teaching.

In this research on field work and attitudes of teacher students at the Faculty of Teacher Education in Zagreb, Čakovec branch, a survey was administered during the academic year 2016/17 on 70 students that attended the regular course Natural Sciences 2 (1st year of studies). The survey was administered anonymously by means of an electronic form. A total of 51 subjects responded to the survey (N=51) immediately after the activity was carried out in the natural environment of the Faculty. After the survey had been conducted, the answers were analyzed using a qualitative method (Bognar, 2000).

Results

In total, 51 students of the Faculty of Teacher Education took part in this survey, 48 of which were female students (94%), and 3 male students (6%).

To the question "*Did you recognize any of the seedlings? Which one?*" 50 students answered, while 1 question remained unanswered. 31 (62%) subjects recognized and named the rose (lat. *Rosa*), and 6 students (12%) could also tell them apart by color – red and white

roses. Lavender (lat. *Lavandula*) was recognized by 10 subjects (20%), and the houseleek (lat. *Sempervivum*) was recognized by 6 (12%) students. One answer mentions the plant heartsease (lat. *Viola*), although it was not among the seedlings, one answer also mentions marjoram (lat. *Origanum*), which was also not among the seedlings, and rosemary (lat. *Rosmarinus*) was mentioned in two answers and it was among the seedlings. So, the students named a wrongly “recognized” plant twice. 7 students (14%) did not recognize any plant, while one (2%) answer stated “I don’t remember”. Two subjects (4%) answered “All”. In total, a fifth of the students (20%) does not recognize and cannot name the plants which were used in the faculty’s backyard landscaping as a part of outdoor teaching session. Students’ answers:

- *Houseleeks, white and red rose.*
- *Lavenders, rosemary.*
- *Roses, lavender, houseleek.*
- *I don’t remember.*
- *All.*
- *I didn’t.*
- *No.*

Answers in which the subjects had to write about “*the most interesting experience in this activity (cognition, information, thought)*”... are really diverse, from exhaustive and detailed ones to very short and general ones (e.g. *Information*).

16 answers (32%) mention associating with others as a pleasant collaborative activity, cooperation and togetherness in activities, 7 answers mention an action (pulling, trimming, digging, watering, showering, cleaning, planting). 6 students (12%) recognize and show positive emotions (spending useful and pleasant time outside the classroom, health benefits of moving, encouraging creativity and ideas for planting in their own yards and helping mother who takes care of this in the household, positive emotions as feedback after the landscaping, the link between hard work and the achieved goal). 4 subjects mention an interesting way of learning, motivation for learning outside the classroom, subject matter that they learned in a more “natural” way, connection between people and nature. Planning (type of the seedling and planting area) as a very important factor of sustainable development is mentioned 5 times (10%), and 9 answers (18%) mention caring for the environment, aesthetic landscaping, beauty of the nature. 8 answers (16%) mention learning that subject matter which will be useful in the future (that you should keep in mind the order in which the seedlings bloom, the

order of colors and the size of the seedlings, the importance of watering after planting regardless of the time of day, the difference between plant bathing and showering, Latin names, type of soil suitable for different seedlings...).

Students' answers:

- *Using one's own strength for cleaning up, but also the flower planting itself in which we were all united, for me is the most interesting experience related to the "Green adventure".*
- *Developing communication, a positive attitude towards nature.*
- *During this activity I realized that the landscaping of the faculty's yard is extremely important. It is the place where we spend time every day, so it has to be neat, interesting and appealing to the eye. By means of this activity, we have made it possible for us, as well as for the other employees of the faculty, to feel comfortable in the faculty environment.*
- *The difference between plant showering and watering.*
- *Associating with others.*
- *Information.*
- *Associating with friends, learning in an interesting way.*
- *Time spent in the fresh air.*
- *"Specify the importance of such activities for the social community."*

Of 51 collected answers, one subject did not answer to this question. 46 answers (92%) mention cleaner and nicer environment, 17 answers (34%) mention raising awareness and the responsibility for environmental protection, in 14 answers (28%) the significance of this activity is linked to spending pleasant time in a neat environment, one answer emphasizes the importance of learning through practice, one answer mentions the importance of spending time in the fresh air for children and the development of motor skills.

Students' answers:

- *Landscaping and care for the public space, raising better people and the development of environmental and planet awareness.*
- *These activities bring a nice and neat environment to the social community. We all feel better in it.*
- *Cleaner nature and environment that surrounds us.*
- *Landscaping and care for the public space, raising better people and the development*

of environmental and planet awareness.

- *The significance of such activities is that through them learners can learn to love the environment that surrounds them, in which they put their effort, and this broadens their environmental awareness, but it also encourages togetherness and friendships.*
- *Nicer environment and raising young ones who are ready for community service.*
- *They are significant for spending a more pleasant time outside every day, for improving one's health and developing motor skills.*
- *Positive influence to the social community.*

To the question “*Indicate the role of the teacher in such activity.*” all subjects responded: 29 students (58%) mention learning new subject matter (name of the seedling and the process of planting); 4 students (8%) say it is to get to know their learners better; 18 students (36%) say it is to prompt and motivate the learners to work; 2 students (4%) claim it is to help in developing work habits; 11 students (22%) mention organization of this form of teaching; 12 subjects (24%) mention coordination; 8 students (16%) mention helping, giving instructions, and supervision; 5 students (10%) say it is to give an example and introduce a new learning model; 27 subjects (54%) mention communication in explaining; 7 students (14%) mention helping the learners in their work, and 3 subjects (6%) mention creating a more pleasant work environment and more open relationships with the learners; 1 student (2%) says it is to encourage the learners to acquire new knowledge and skills in a healthy environment.

- *To motivate the learners for work, to keep them together, to help them in problem solving and to lead them towards a goal.*
- *A mentor who teaches in an unconventional way. The teacher, by associating with the learners, creates a more relaxed atmosphere and better, more open relationships.*
- *The teachers emphasize their learners' creativity and teach them about togetherness. They teach about plant identification and work habits.*
- *The teacher should, in my opinion, be in the role of an observer and help the children when they ask for help (a principle of Montessori education – “help me to do it myself”).*
- *The teacher raises awareness about caring for nature, environment, plants, developing new friendships, learning about the earth, methods of planting, plants, the quantity of water that plants need and similar.*

- *The role of the teacher is to arouse the learners' interest in nature and help them develop an intimate relationship with the nature as soon as possible. It is also equally important for them to encourage the learners to acquire new knowledge and skills in a healthy environment.*

To the question “*Indicate educational aims (for the learners) of such activity.*” all students gave answers. 38 answers (76%) mention team work, cooperation, a form of helping others; 36 (72%) mention care for the environment and environmental protection, awareness of the importance of environmental protection; 32 subjects (64%) mention respect towards other people, respect for others' opinions, acknowledging others' advice; 23 answers (46%) mention developing work habits; gardening; 7 answers (14%) mention responsibility, 15 answers (30%) communication; 4 answers (8%) mention education; 5 answers (10%) learning, teaching; 13 answers (26%) creativity; 9 answers (18%) problem solving; and only one answer (2%) mentions socialization, and general care for the things that surround us.

- *To behave in a friendly manner and to help each other, and solve problems that we face together.*
- *Working in a group, acknowledging others' opinions.*
- *Learning about team work, patience.*
- *Group work is encouraged, as well as acknowledging others and learning about caring for the environment.*
- *I think that this activity is very useful because it could help the learners develop work habits, they would work in groups and learn how to respect others around them and accept their suggestions, and they could also learn to spend more time outside (which is not the case with the children today because of the developed technology).*
- *So that the learners develop work habits, team work, learn how to consult with others in their team, to accept others' suggestions.*
- *That we should generally learn how to care for things that surround us and try to change things around us. Also that it's important to work hard and work cooperatively.*
- *To raise the learners' awareness about the importance of environmental protection.*
- *Acknowledging others' opinions, helping each other.*

Discussion

The analysis of the answers showed that the students knew the seedlings by their look as

well as by their names. The rose was recognized in 62% of the answers. Since roses are very common household plants, the percentage of correct answers should have been higher. Lavender has also been recognized too few times considering its use and its specific scent. Houseleek is also a plant that grows in gardens and yards, while it is commonly grown in flowerpots in apartments, so it is below expectations that only 12% of the subjects recognized it, since the houseleek is the most common traditional species in the continental part of Croatia and is famous for its phytomedical usage. 7 negative answers in plant recognition were not expected considering the widespreadness and usage of roses, lavender, houseleek... “*I don't remember*” is the answer which probably has something to do with the time delay between the “activity” and filling out the survey (9 days). The answer “*All*” is not reliable since not one seedling was named. The answer that the marjoram and heartsease seedlings were recognized is incorrect because these seedlings had not been used in the activity of landscaping during the field work. Concerning the descriptions of the most interesting experiences during the activity of faculty's backyard landscaping, the answers were various. From short and simple ones (“*Information*”) to exhaustive and detailed ones (*During this activity I realized that the landscaping of the faculty's yard is extremely important. It is the place where we spend time every day, so it has to be neat, interesting and appealing to the eye. By means of this activity, we have made it possible for us, as well as for the other employees of the faculty, to feel comfortable in the faculty environment.*) In most answers the students mention spending time in the fresh air and the pleasant time spent with others. Apart from these answers, some also mention mutual communication as a basic method of teaching. Accompanying occurrences such as dirtiness, heat and physical work were shadowed by the pleasant time the students had with each other. The subjects claim that this form of teaching allows them to be more creative and motivated, both for work and for learning. As future teachers, the subjects are carriers of social happenings in the community so they emphasize the importance of mutual communication and environmental awareness (Đuranović i sur., 2013). In these kinds of activities, the role of the teacher is extremely important. The teacher plans the activity, time and place for the activity, prepares the tools and seedlings and gives clear assignments to the learners with an explanation for each stage of activity. By their direct work, the teachers motivate the learners, give them advice, control, correct their mistakes, and give feedback. In all these activities the teacher is the role model and by their example shows socially acceptable behavior. In their answers they mention educational aims (communication, mutual help, cooperation, team work, care for the

environment, responsibility, learned facts about the seedlings, planting as a process...) that are accomplished during the outdoor teaching session. From these answers it is clear that the future teachers are aware of their role as professionals in charge during outdoor activities, which confirms the hypothesis that they recognize educational values of this form of teaching and that they have a positive opinion about it. By means of this approach, which realizes the principle of regional identity, teachers can carry out the famous didactic rules from the known to the unknown, from the close to the far, from the simple to the complex, and from the easy to the hard (De Zan, 1999; Kiš-Novak, 2004; Kiš-Novak, 2015). The contemporary learners do not have the overall perspective on many events that occur in nature and society. This is why children are deprived of the original cognition of things (Kiš-Novak, 2004; Kiš-Novak, 2015), and carrying out the principle of regional identity for the elementary school learners (1st to 4th grade) is the basis of natural sciences (Lukša, Ž. and sur., 2014). The science of nature or natural sciences has devised, throughout its history, such methods and research with the help of which the scientists have successfully managed to explore and understand the environment. Methodological research has shown that the best results in natural sciences have been accomplished by the learners who had been learning about nature and the environment by means of research, using the scientific method or its certain procedures, e.g. observing, describing, comparing, measuring, collecting and noting the data, experiment and research planning, presenting the data, making conclusions and explaining the data (De Zan, 1999: 137-151).

The factors that affect outdoor teaching are subjective (the significance of the professor's and students' role) and objective (didactic strategy, space and place for the outdoor classes, curriculum, weather conditions, season, availability of the technical resources such as instruments, material, tools and vehicles, daily schedule and climate).

Some suggestions about how that picture could be changed in Croatia:

Outdoor teaching should be a form and a possibility of mutual interaction between students and professors, where the subject matter would assume a dynamic form of a movement with the need of demonstrating all rules of teaching. The student has to feel this form of teaching as their moment, corroboration of their identity, and the professor has to be a professionally and didactically prepared instrument that directs the stages of realization of outdoor education. The professor should anticipate the unexpected situations and occurrences so that the aims and objectives of outdoor education would be realized and evaluated in the process of it being carried out.

Conclusion

The subject matter of natural sciences is introduced through specific educational areas that are appropriate for the psychophysiological traits of the learners. In other words, natural sciences offer inexhaustible possibilities in terms of educational strategies which encourage active learning and critical thinking skills. In this process, the contemporary approach is important: which is why the author of this article takes the principle of regional identity as a contemporary (research-focused) and an implicit approach to the scientific-ecological-educational moment. Therefore, the students need to be involved in the preparation stages, acquainted with the aim and objectives, with the conditions, surprises and dangers, with the assessment methods, criteria and evaluation methods of outdoor education.

Hypotheses have been confirmed:

H1 The students have a positive opinion about outdoor teaching:

16 answers (32%) mention associating with others as a pleasant collaborative activity, cooperation and togetherness in activities, 7 answers mention an action (pulling, trimming, digging, watering, showering, cleaning, planting). 6 students (12%) recognize and show positive emotions (spending useful and pleasant time outside the classroom, health benefits of moving, encouraging creativity and ideas for planting in their own yards and helping mother who takes care of this in the household, positive emotions as feedback after the landscaping, the link between hard work and the achieved goal). 4 subjects mention an interesting way of learning, motivation for learning outside the classroom, subject matter that they learned in a more “natural” way, connection between people and nature. Planning (type of the seedling and planting area) as a very important factor of sustainable development is mentioned 5 times (10%), and 9 answers (18%) mention caring for the environment, aesthetic landscaping, beauty of the nature. 8 answers (16%) mention learning that subject matter which will be useful in the future (that you should keep in mind the order in which the seedlings bloom, the order of colors and the size of the seedlings, the importance of watering after planting regardless of the time of day, the difference between plant bathing and showering, Latin names, type of soil suitable for different seedlings...).

H2 The students recognize educational values of outdoor teaching:

38 answers (76%) mention team work, cooperation, a form of helping others; 36 (72%) mention care for the environment and environmental protection, awareness of the importance of environmental protection; 32 subjects (64%) mention respect towards other people, respect for others’ opinions, acknowledging others’ advice; 23 answers (46%) mention developing

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