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The Use of Informational Technologies in the Outdoor Educational Activities in Times of Special Educational Situations

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Abstract: In the modern educational systems, informational technologies had become part of the daily teaching learning routines. Outdoor education, as part of educational curricula, in most of the educational systems, uses informational technologies in order to make the instructive-educative process at all age groups more enjoyable and more efficient. During outdoor learning activities within the classroom experiences, there are lots of elements from the digital area that can be use& Being part of new educational types, outdoor education among with ITC, has become an imperative need to be practiced in the modern educational systems especially in times of special educational times. They are complementary, especially in times of pandemic when regular education types within the classrooms cannot be achieved. The present article shows practical ways in which informational technologies can be used within outdoor learning experiences and a brief research about the way primary school teachers within 3 schools from Arad County use informational technologies during outdoor educational classes. The main method used was the survey, based on the questionnaire instrument. There were 75 participants and the schools chosen belong to 3 different environments, such as city, suburb area and country side. The preliminary results show that teachers within the rural area use outdoor settings the least and also the modern informational technologies during their instructive routines.

Keywords: *outdoor; education; informational; technologies; modern*

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1. Introduction

Outdoor education is a concept that takes into account an entire educational program based on participants direct involvement through experience and practicing theoretical elements learnt in class, which takes place outdoors, preferably in a natural setting. It is based on the theory, philosophy and practice of 3 types of education: ecological, environmental and experiential. It helps individuals to get to know themselves, to perceive the surrounding world more correctly and, above all, to gain a better knowledge of other individuals that surround them. It is considered a modern type of learning strategy with strong educational effects having the benefits of developing the innovative spirit, leadership, communication and other aspects of modern life. It is one of the many new educational types that support the development of key and transversal competencies in the regular educational practices.

The rapid evolution of the society, the analysis of the contemporary problems and the identification of the great topics of meditation have led to the formation, in educational plan, of specific answers, through the new educations. The list of new education can be modified in time, by the emergence of new disciplines or even the disappearance of existing ones. The related disciplines are presented as follows: peace education, ecological education, participation and democracy education, demographic education, change and development education, communication and media education, nutrition education, modern economic and home education, time education free, environmental education, education on fundamental human rights, etc. These are affirmed by the introduction of new disciplines, centered on a certain type of education, by the creation of specific modules within the traditional disciplines or by the infusion of messages related to the new contents, in the classical disciplines. and "complementary solutions that place school practices in a scientific and social-cultural universe typical of this millennium beginning" (Cerghit, 2002).

Once with the globalization, technologies have also developed, and learning has undergone both form and background changes. "The democratization of education is one of the greatest benefits of modernity" (Cucoș, 2008). The youth have more and more opportunities for training, according to principles that define the whole of today's society. In the postmodern century, education is seen as institutionalized and instrumental, pursuing certain goals and objectives. A pragmatic society builds its education as it is, in accordance with the different principles that set it in motion. Thus, the idea of bringing together several disciplinary profiles emerged to investigate the complexity of the surrounding world, by claiming holism and globalization, building links between different sides of knowledge. In times of special educational needs, such as pandemics, there is an urging need to use all complementary educational types, such as the ones belonging to new educational types, which worked as optional ones until the current period, when efforts need to be focused on finding proper ways of education for kids that cannot reach educational institutions.

2. Theoretical foundation

For a better understanding of the concept, it is recommended to analyse the outdoor education according to what is not as a definition. Outdoor education is not time spent in the outdoor environment, neither relaxation or play, nor does it refer to activities carried out during free time in the natural environment. It is a modern direction of organizing education and can often involve short field trips that offer participants challenging ways to develop transversal competencies, but which must have as their main pm-pose: learning. The main objective of outdoor learning is multilateral learning. For example, the educator can learn how to overcome adversity, to work with others, to develop a deeper connection with nature, with others and with oneself. According to Higgins, as a conclusion to the definitions stated above, outdoor education is seen as" a cultural construct, which is approached and applied differently from one system to another, being a type of education that aims at social and personal development" (Higgins & Nicol, 2002).

2.1. Underlying theories of outdoor education

Following a careful radiography of the current state of outdoor education in the current educational system, or the benefits, strengths and weaknesses of its use within the formal and non-formal system, the need for an analysis of the theories underlying this micro- pedagogical system and the personalities that initiated it.

The roots of outdoor education can be found in philosophical works, as follows:

•Comenius-1592, which influenced by practicing education;

•John Locke- 1632, for establishing the origins of the concept of self-knowledge;

•Jean-Jacques Rousseau - 1712, through the ideas of social development that he promoted;

•Johann Heinrich Pestalozzi-1746, through the modern revolutionary principles in education, based on the motto: "learning with the mind, heart and hand";

•Henry David Thoreau-1817, to promote the naturalistic lifestyle and simplistic education, as close to the natural environment as possible;

•John Muir- 1838, through adventure books and naturalistic journals presented;

•William James-1842, through the ideas of functional psychology and pragmatism;

•John Dewey-1859, through the proposed social theories;

•Aldo Leopold-1887, by promoting ethics in the environment;

Outdoor education works not only under the banner of famous names, but also of associations and organizations behind which specialists in outdoor education work. Some of these organizations are presented as follows: American Camp Association and Association for Experiential Education, National Outdoor Leadership School: Nature's Classroom, Australian Outdoor Education Group, Outward Bound International Educational Organization, Forest School or Forest School: etc.

2.2. Recent perspectives

The most important directions underlying the outdoor education are: climate change and the increased interest of education specialists on this fact, the concept of nature deficiency that is manifesting more and more in modern society and which is becoming more and more difficult. counteracting due to the rapid development of the company and especially due to the emergence of technologies. Altered physical condition of young people and children of today's society due to lack of movement, healthy nutrition, lack of time spent in nature in natural light having direct contact with natural elements, rationalization (sociology) and educational reform based on standardization are the elements that they want to be changed through this type of education (Sproule et al., 2013).

To get a clear picture of recent perspectives on outdoor education, it is required to describe a few models along with their essentials and some practical directions of use. In the USA, there is an adventure-based education model, without an appointed conductor of the activity, where the participants share the travel expenses. The University of Oregon with the Outdoor Program can be brought as a great model, because it offers in a non-formal education system. In similar programs, there are designated instructors or teachers who are in charge of creating and developing outdoor education programs, according to each age level. Models like Mountain

Travel or Rocky Mt. River Tours runs guided tours, for a fee, leading its clients on various trips. Outward Bound, is a non-profit organization also present in Romania since 1993, when it was founded as an independent member of the world organization Outward Bound International. The founder of this organization, Kurt Hahn (1886-1974) wishes by the philosophy that he developed, to instil in each educator the idea that by trusting in their own forces they can reach wherever they want in their lives. This is the foundation on which from the beginning, Outward Bound Romania is based, through the quality programs it carries out and which are aimed especially at young people. The main programs include personal development courses for students and students, courses for teachers, leadership courses and courses for orphans and disadvantaged youth. So far, in the over 20 years of existence, around 30,000 young people have participated in outdoor education courses in Romania.

Outward Bound includes programs that work very well in achieving the above-mentioned objective, nature becoming a classroom, rocks, rivers, forests and lakes are the learning tools for developing and increasing the strength of each participant. In the programs, there are challenges such as climbing and rafting, but also some more subtle activities, such as sharing thoughts and feelings with others, or developing effective teamwork. By leaving the family environment, participants are offered challenges in safe conditions, but physically, mentally and emotionally demanding. The reward of facing these challenges is discovering new things about one's own person and discovering one's own potential. The activities are created in such a way as to inspire confidence, team spirit, responsibility, empathy and caring for the community. As self-confidence increases, so too do group decision-making techniques. The mission of these programs is to help people, through challenging experiences in an unfamiliar and challenging environment, discover and develop their potential to take care of themselves, others, and the world around them (Dettweiler et al., 2015).

There are a lot of disciplines and content covered by learning programs in outdoor education in the current period, due to the recent perspective and holistic view on learning, but also because of the interdisciplinary approach. These programs include: history, geography, environmental studies, programs that can work on the development of emotional intelligence, decision-making capacity, managerial skills, respect, responsibility, self-trust and leadership skills development. One of the most modern ones is ICT.

Portable device apps on phones, GPS tracking and QR codes can be used by outdoor educational leaders in order to create trails, hunts or orienteering activities based on maps and compass. Children can be placed in the perspective of reporters by using video and photo instruments, capturing and then sharing in their learning experiences from nature. This way, pupils can understand digital literacy and safety using the internet, by sharing their work with the use of the internet or even by creating Power Point presentations (Cant & Bothma, 2010).

Young generations, use ICT on a daily basis, making it significant parts of their everyday lives, all these instruments giving them a better knowledge of the society around them.

2.3. Significance of outdoor learning throughout the world

Outdoor education takes place in one form or another in most countries of the world. It can be implemented differently, depending on the socio-cultural contexts. In some countries outdoor education is seen as environmental education, in others, the two types of education are seen as two completely different practices. Modern forms of outdoor education are practiced at the highest level in countries such as the United Kingdom, the United States, Australia and New Zealand. Some forms of outdoor education also appear in Europe, Asia or Africa.

Modern pedagogical theories that support outdoor education in the UK are included in the curriculum as its basis. Outdoor education gives depth to the curriculum by making important contributions to the physical, personal and social education of the students (English Outdoor Council, 2013). As a continuation of outdoor education, in the UK, the school in the forest appears to have been set up and the formal education system borrows its elements.

In Australia and New Zealand, certified outdoor programs are practice& Teachers have the opportunity to choose to practice their job in one of the many existing outdoor education centres. The New Zealand Outdoor Education Council has developed curricular documents to ensure that educational institutions are actively involved in this type of education, throughout the country.

Denmark is known as one of the most environmentally conscious countries. One of the ways they prove this is the forest school system that exists there. In the forest, through the use of nature and animals, students learn elementary, fundamental but also environmental education (Early Nature Lessons in Denmark's Forest Preschools - The official website of Denmark, denmark.dk).

In Germany, the term outdoor education does not seem to have an exact equivalent in German. although Kurt Hahn, one of the key figures in the development of outdoor education in the twentieth century, was of German origin. In general, outdoor education or adventure education is not as widespread in Germany as in other education-developed regions, such as North America, Australia and the United Kingdom. However, an educational approach closely related to experimental education is usually applied. Most organizations and companies that offer programs and activities based on experiential education for children and young people also offer similar programs for adults, especially for corporate teams, henceforth referred to as outdoor training. Judging by the type of outdoor training programs available through an Internet search, the main clients of Germany's outdoor training providers are corporate teams and organizations looking for team building and personal development. German schools have begun to make greater use of the external and experiential possibilities in planning school trips, but the experiential approach is rarely implemented in the mass school system and is not as common for students in Germany as in other countries.

In Norway, outdoor education is practiced in all public and private schools, as an interactive learning strategy, with no day when students do not replace the classroom with the external environment in order to have the most interesting learning facilities. From simply adapting the contents of the disciplines so that they can be carried out outdoors, on trips, expeditions, day camps, the Norwegian education system supports and encourages outdoor education in all its forms.

The international value of the present article is to show that in times of special educational needs, outdoor education, along with the use of ITC can maintain a level of normality within the educational process, complementing the formal educational process from the classrooms.

2.4. Practical methods of ICT use in Outdoor Education

a) Using apps for orienteering activities

The apps that teachers can use in outdoor orienteering activities very easy to use, the free to download and try for every pupil in the classroom. To get started teachers have to scan the course, set up code from the map or at the start location. Once pupils are ready to go, they can scan the start code to start to clock. Also, pupils will have to scan the controls as they pass them, then the finish code at the end to stop the clock. Once finished, they will be offered the chance to upload the results to a specific site. It is a very easy and fun way to learn the curricular contents outdoors. Teachers can create courses or try one already set up on the apps they choose to use.

b) **Using photo cameras to immortalize activities and science findings, in order to discuss them in class**

It is said that photograph can represent all the emotions and experience as people put in it, collecting as much part of the reality as it is possible (Levitt et al., 1998, p. 151).

Pupils frequently document their outdoor adventure experiences with photography. A photograph can preserve moments in time. No matter if they reflect moments or if they are used for other purposes, such as advertising some objects, those who take them all desire to capture important experiences or moments in their lives (Cronin, 1998). Walker and Kimball-Moulton (1989) consider that taking photos is like transposing a moment from past into the future.

For many of the pupils that take part in outdoor educational activities during their instructive-educative process, the photographs were used to bring back memories from the outdoor educational activities that they took part in. By looking at pictures taken in a specific learning activity, pupils get involved in the teaching-learning process with all their feelings and emotions. Photography enables pupils to identify the most important moments of their outdoor learning experiences. Memory is being triggered, and pupils remember more information that they would by just using their remembrance. The newer the experience, the more pictures pupils use to take, because the desire to capture every new emotion grows. When they are stressed or they have self-confidence issues, pupils look at the pictures that they have taken, because it can transpose them in the exact stage when they had the outdoor experience and when they felt strong and independent. Photos have the incredible power to keep experiences alive, and this should be a greater motivation for outdoor education practitioners to urge pupils to take as many pictures as possible while learning and experimenting outdoors.

c) Blogging about field trips

Blogging is an example of how pupils, especially from the 3rd grade up, can use technologies to express their creativity and innovation. The various ways in which it can be applied show that pupils have many ways in which they can learn how to learn, which is a big part of blog creativity. Slogging, is a model that can be used in the desire to promote ICT that demonstrate individuals how to link their own writing products to other compositions and how to form connections with other bloggers that have same interests of study.

Blogging, if it is desired to be used correctly in the educational systems as educational tools, needs to follow specific steps:

•before the visit phase- when each group of pupils prepare a post about the place and activities they are planning to do, choosing the one that can bring the most learning out of it.

•observation phase- which is made on the day of the field trip, when pupils can collect images and ambient sounds. Observation can bring information about mental representations of participants, and connect it to the knowledge they have accumulated from the outdoor learning process, being completely new.

•after the visit- when pupils come together in order to developed the materials they have collected and post it on their blog, where they can share information and findings about the field trip. Using blogging as a support for outdoor learning activities, pupils get a sense of freedom and dynamism they cannot reach in the inside of their classroom. They become proactive by creating their own final products. Even if modern generations are surrounded by all forms of ICT, they have not formed the competency to use it in proper ways (Pavon, 2013).

3. Research design

The present research was based on the method of survey. The main instrument used was the questionnaire. This instrument was applied, with the purpose of collecting data regarding the opinions, knowledge and experiences of the teachers from Arad county regarding the concept and activity of outdoor education and its combination with the use of ICT.

The questionnaire items were targeted at an algorithm that measures around three components for each type of content, respectively components aimed at: knowledge, attitude, experience. The other data that appear in the questionnaire are personal and identifying information of the teacher participant, educational experience, gender, age, environment in which they profess and the specialization they have. Considering the purpose of the study, the items were developed in accordance with the two major topics of interest: outdoor education and use of ICT. The items were elaborated maintaining the same objective structure, using different scales. The first items refer to the familiarity with the concept, the way and the place in which it came into contact with this concept and where it might be placed as an educational strategy. These questions are important, because we wanted to find out the level of knowledge here, and even if at first glance it would seem to be superficial questions, we consider the operating area to be important, namely what are the environments in which teachers can come in contact with new concepts. The third item is interesting because we wanted to find out where exactly the concept is placed in the educational environment, this influencing the answer to the following questions.

The next set of items is concerned with the applicability of the topic of interest, namely the experience of the teachers in this field and the flow with which they are used in the educational routine, from which it is easy to see the interest given to the topic. The structure of the questionnaire is designed so that the items increase in intensity and depth with the passage of the questions, continuing with the items that refer to enthusiasm, integration and personal development. The deeper we go through the questionnaire, the more personal and individualized the note becomes. The following items reach an affective area, referring to trust in activities and results, organization, planning and evaluation. This is of particular importance in terms of study, because, as we discussed in the research motivation part, the main educational actor who can bring immediate and rapid changes in an educational system is the teacher himself, who has access valuable information, content, topics, etc. The personal imprint on the educational system is brought by the teacher himself through the way he approaches, organizes, evaluates or enriches the learning. The answer to these items, shows the personal contribution and the availability of each teacher to the learning experience of the educable, through the use of new methods and the openness to the novelty.

The questionnaire ends with questions related to method limitations or even personal limitations of the teacher. We wanted to offer a realistic image on the availability of the teachers to overcome in organizing the outdoor activities in completion with ICT or to choose to be mere spectators in the instructional-educational process. Also, here we have introduced an item that refers to disturbing elements of the outsiders that could be used as an excuse not to apply the activities related to outdoor education and ICT.

The participants were in a number of 75 primary school teachers from 3 schools from Arad County, situated in 3 different areas: rural, urban and urban peripheral areas. There have been used a convenience sample, where participants were selected based on naturally occurring groups, due to the fact that it was out of reach to select a truly random sample. This was based on asking members of the population of interest, primary school teachers within Arad County, if they would take part in the present brief research. There is a generalizability, which is the extent to which we can apply the findings of our research to the target population we were interested in. The chosen sampling method has also represented a limitation of the present research. The data collection saturation has been verified when no new information was discovered in data analysis. The data has been collected within 4 months, and by this we were reasonably assured that further data collection would yield similar results and serve to confirm emerging themes and conclusions.

3.1. Objectives of the study

One of the main objectives of the study, was to find out at what extent the area in which the educational institution is situated influences the rate of outdoor education use, and ICT use within these educational activities. The study also wanted to research in which ways the lack of resources affects the use of outdoor learning activities.

The extensive objectives of the study are as it follows:

• Bibliographic documentation in order to obtain the information needed to carry out the research;

• Presentation of an accurate image regarding the current state of the situation of the use of outdoor learning activities in school policies and in the national curriculum, but also as a practice in schools in Arad;

• Presentation of an accurate image regarding the current state of the situation of the use of ICT in school policies and in the national curriculum, but also as a practice in schools in Arad;

• Identification of the opinion of the teachers regarding the importance and the impact of the use of outdoor learning activities in the educational activities;

• Identification of the opinion of the teachers regarding the importance and the impact of the use of outdoor learning activities in the educational activities;

• Designing and proposing the use of outdoor education programs that use outdoor education and ICT in order to be prepared for special education situations in the formal education.

Being part of a more complex study, which analyzed the way in which outdoor education can develop transversal competencies, the participants were chosen aleatory, because if they would participate on the *desire* criteria, the results of the study could have been spoilt. The quantitative data that has been collected in the period of 20.09.2019 and 19.01.2020, was introduced in the SPSS 6.0 statistical program for analysis.

In the teacher's questionnaire, there have been used a large number of dichotomous variables, which is due to the items that offer the possibility to select several options, each answer being converted so that a clear, relevant and real statistical analysis can be performed. Otherwise items that name data about options or personal opinions, preferences or motivations are used as dependent variables. In this questionnaire, as examples of variables can be given the following:

1. Nominal variables for gender (var = GEN), specialization (var = Specialization), vocational environment (var = Med), the rate of integration of outdoor activities in daily activities (var = Integr), factors that influence the use of the method (var = Fact) and the opinion about who should lead these activities (var = Believe).

2. Ordinary variables related to familiarity regarding the concept of outdoor education (var = Fam), experiences related to outdoor education (var = Exp), time allocated to outdoor education (var = Perm), frequency of class involvement in outdoor activities (var = Often), enthusiasm (var = Ent), evaluation of interest (var = Interest), level of trust granted (var = Confidence). Also, the ordinary variables were used in the case of analyzing the participation of the media elements in the absence of the open air during the formal education (var = Particip) and in the item in which it is analysed whether the teachers consider that they can carry out outdoor activities (var = consider).

3. The variables of scale type, for age, seniority and other two items that refer to the personal opinion regarding the concept and personal interest related to the activity in developing certain competences.

3.2. Research questions

1. Is the formal educational system in Romania sufficiently and successfully concerned with the use of outdoor education and ICT in primary schools and so with the development of some transversal competences (manifesting positive initiatives in school and extracurricular activities, using the knowledge gained in several ways to solve work tasks, using the trained capacities. to solve problem situations in the known environment and to improve the attitude towards learning) that could be useful in times of special educational needs?

2. To what extent do outdoor activities with the completion of the use of ICT influence the development of transversal skills in students belonging to primary schools?

3. What are the resources that are actually available in the current educational system in the selected schools from Arad county, and what could motivate the use of outdoor activities in the daily routine of teachers?

The purpose of the questions formulated above, is to support the objectives of the study and also to enhance the need of introducing and popularizing subjects within the new education types, in order to maximize the adaptation process during special educational needs.

3.3. Research findings

The results of the analysis were introduced as quantitative data in the SPSS statistical program in order to interpret the results. There were used both parametric and non-parametric statistical tests in order to get to the results. Correlations were analysed between area in which schools are situated and the rate of use of the activities analysed. Also, correlations were analysed between the age/experience of teachers and the way in which they use outdoor learning activities. The finding of the research shows the following:

Table 1. Dist*ribution of participants in coordination with the area*

Area	Participants
Rural	25
Urban	27
Urban peripheral	23

Therefore, following the processing of the collected statistical data, the following were observed:

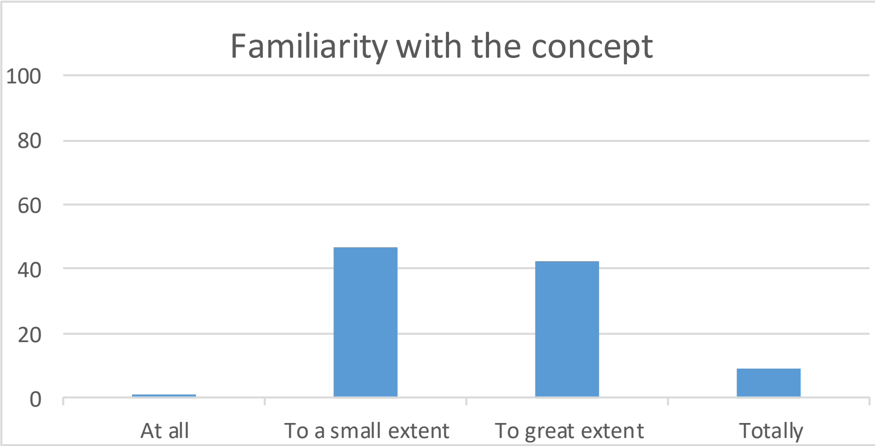
1. 75 teachers answered the questionnaire

2. The average age of the respondents is 37 years; the minimum age is 20 years and the maximum age of the respondents is 66 years. Most respondents are between the ages of 25 and 30

3. The next variable to be analyzed is the environment in which the respondents - teachers perform their activity. During the analysis, the correlation of this variable with others, represents an increased interest in the present study. We want to find out if there is a connection between the teaching environment and the time allotted for outdoor activities or if this variable in any way affects the other educational routines. The professions were of two types, urban and rural, and as a result of the analysis no significant differences can be observed regarding this variable.

4. We were interested in the level of familiarity with the concept of education outside the classroom and ICT, and the answers appear in the following diagram:

Diagram 1. *Level of familiarity with the concepts*



5. Another variable to be analysed would be the way in which respondents came into contact with this concept. The results of the preliminary study show that most respondents have come to know the concept through the Internet or through training courses or pedagogical circles. These results reveal the degree of concern of the management regarding the introduction of new concepts in the formal educational systems in Romania and especially the desire of the teachers to evolve and modernize the personal activity in the classroom, offering students new opportunities for development. A smaller number of teachers claim that they came into contact with the concept through a book or specialized journal, which highlights the need for research in this area. Only 3 people specified that the television would have provided information on this topic.

6. The following variable measures even the interest to participate in activities, personal training courses in this regard. More than half of the respondent's state that they are interested in personal training activities for the purpose of outdoor education and ICT. They are closely followed by almost 40% of teachers who declare that they are very interested in developing in this direction. This result must be a motivating engine for the inspectorates, who can use the handiest way to approach the outdoor topic,

under the aegis of pedagogical circles. This result also denotes the fact that teachers are keen to develop and bring something new to the classroom activity.

From the teachers that have participated in the study, 70% admit that they do not use outdoor education activities within classes, because they do not have proper resources and spaces. In another study, we have resented that space has a major influence on the rate of using outdoor education within schools from Romania (Torkos, 2019).

The findings of this study, show that there is a significant correlation between the use of outdoor educational activities and the use of ITC during these activities.

Table 2. *Positive correlations between OE and ICT regarding the development of transversal competencies*

Independent Samples Test

		Levine's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
TOTALFOPOST	Equal variances assumed	7,605	,010	8,920	31	**,000**	6,089	,683	4,697	7,481
	Equal variances not assumed			9,433	25,991	**,000**	6,089	,646	4,762	7,416

Teachers from the rural area use the least outdoor activities, even though they benefit of the most varies places and spaces. Teachers from the rural area, admit that they have never used ITC during outdoor learning activities. Teachers from urban area, according to the result of the study, use outdoor activities the most, even though the space is not varied at all. The city room is the most frequent outdoor setting that teachers from the urban area use most often. On a previous study, I have shown the importance of the city room in the outdoor education of primary school pupils and all the great resources that can be found there. This study, is valuable for teachers that practice in the urban area, and the space represents an issue (Torkos, 2017). The kind of technology they introduce is also varied, because parents cooperate well with the teachers, and have donated all kinds of instruments in order to facilitate instructive educational activities. They use cameras, phones and also apps for orienteering activities. Teachers from the urban peripheral area, are situated in the middle, regarding use of technology during outdoor education activities, because of the lack of resources, even the space allows them to do so. There are many outdoor activities that can involve ITC, but teachers often refuse to get involved in organizing them because of the lack of knowledge in adapting space and resources to the requirements (Nielsen et al., 2016).

4. Conclusions

Outdoor education is more and more a way of teaching all over the educational systems in the world. Romanian educational systems are making efforts to introduce outdoor activities in the practice of every day. The national curriculum, supports these efforts, especially in primary school, motivating teachers in using outdoor settings and ITC in the daily activities. No matter the schools are situated, there are proper ways to use outdoor education and its belonging activities combined with ITC, the most important thing is to get to use it as often as it is possible, in order to provide efficient teaching-learning situations. The present article is important in describing the way that outdoor education connects with the use of ICT, and together, they complement and offer support to the formal educational systems, especially in times of special educational needs, when children can't gather together in purpose of learning in the traditional settings of the classrooms, and need to be connected for the main aim: learning. This learning has to be correct both pedagogically and socially (Mygind, 2009). Developing both ICT and Outdoor learning skills, as being part of new education subjects, adaptation during special times, such as pandemics comes easily and pupils already having a base, can connect in order to facilitate learning. The research meets its objectives regarding the extent of the area in which the educational institution is situated influences the rate of outdoor education use, and ICT use within these educational activities, also the ways in which the lack of resources affects the use of outdoor learning activities (Carill, 2015).

The paper comes to bring new knowledge for the readers and practitioners in the educational field by presenting a theoretical base in which outdoor learning uses ICT elements and practical ways in which the two can be combined in order to offer pedagogically and socially correct learning experiences in primary schools on a daily basis and especially in times of special educational needs. It is useful because of the novelty that brings regarding the results of the research. Conclusions show that teachers are not sufficiently prepared in the matter of new educational types and adapt hardly to special educational needs. The results bring to further studies, regarding the ways in which schools can offer training programs in both OE and ICT.

References

Cant, M. C., & Bothma, C. H. (2010). *The learning-technology conundrum: Lecturers' perspectives. Progressio,* 32(1), 55 - 73

Carill, E. (2015, August 18). Linking Outdoor learning to the ICT curriculum. *Learning Outside the Classroom.* https://learningoutsidetheclassroomblog.org/

Cerghit, I. (2002). *Sisteme de instruire alternative și complementare. Structuri, stiluri și strategii.* Aramis

Cronin, O. (1998). *Psychology and photographic theory.* In J. Prosser (Ed.), *Image-based research: A sourcebook for qualitative researchers* (pp. 69-83). Falmer Press.

Cucoș, C. (2008). *Educația. Iubire, edificare, desăvârșire.* Polirom.

Dettweiler, U. Lauterbach, G. Becker, C. Ünlü, A. Gschrey, B. (2015). *Investigating the motivational behaviour of pupils during outdoor science teaching within self-determination theory. Frontiers in Psychology, 6*, 125. https://doi.org/10.3389/fpsyg.2015.00125

Early Nature Lessons in Denmark's Forest Preschools -The official website of Denmark, www.denmark.dk

English Outdoor Council. (2003). Residential Outdoor Education Experiences. A legacy for learning, http://www.lotc.org.uk/wp-content/uploads/2013/04/Residential-Outdoor-Education-Experiences-A-legacy-for-learning.pdf (accesat 24.11.2017. 11:14)

Higgins, P. & Nicol, R. (2002). *Outdoor Education: Authentic Learning in the context of Landscapes*, Vol II. Sweden. http://www.docs.hss.ed.ac.uk/education/outdoored/oe_authentic_learning.pdf

Levitt, H. Parks, G. & Hosoe, E. (1998). *Photographers on photographers.* Aperture.

Mygind, E. (2009). A comparison of children's statements about social relations and teaching in the classroom and in the outdoor environment. *Journal of Adventure Education and Outdoor Learning*, *9*, 151–169. https://doi.org/10.1080/14729670902860809

Nielsen, G., Mygind, E., Bølling, M., Otte, C. R. Schneller, M. B., Schipperijn, J., Ejbye-Ernst, N., & Bentsen, P. (2016). A quasi-experimental cross-disciplinary evaluation of the impacts of education outside the classroom on pupils' physical activity, well-being and learning: The teach out study protocol. *BMC Public Health*, *16*, 1117. https://doi.org/10.1186/s12889-016-3780-8

Pavon, F. (2013, November 27-30). *ICT and Outdoor Learning, Cadiz University, Spain ICT AND OUTDOOR LEARNING* [Conference presentation]. Conference: Science and Sustainability Through Outdoor Learning, Slovenia.

Sproule, J., Martindale, R., Wang, J., Allison, P., Nash, C., & Gray, S. (2013). Investigating the experience of outdoor and adventurous project work in an educational setting using a self-determination framework. *European Physical Education Review, 19*, 315–328. https://doi.org/10.1177/1356336X13495629

Torkos, H. (2017) *The use of city room in outdoor activities. International scientific conference, Problems and dilemmas of teaching and learning theory and practice in formal education* [Conference presentation]. International Conference, Serbia, Arandjelovick.

Torkos, H. (2019). Time, space and resource management in outdoor education. *JourNAL Plus Education 2*(25), 11-19.

Walker, A.L. & Moulton, K. R. (1989). Photo albums: Images of time and reflections of self. *Qualitative Sociology, 12, 155-182.*