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Geotouristics – One of the Forms of Development of Geotourism in Slovakia

Summary

The presented article deals with the possibility of introducing a new form of tourism and its following implementation among university students living in Slovakia (age range 19–30 years) with emphasis on its use in the teaching process as well as in the development of geotourism in Slovakia. We have completed necessary research and analysis to point to the potential of geotourism as a tool for tourism development in Slovakia and also to point to the potential of development of recreational sports. We have also defined the model solution of geotouristics entry into the educational process at universities in the Slovak Republic defined on the example of geotouristic destination Malá Fatra.

Keywords: geotourism, geotourism development, development of recreational sports, teaching process, students and geotouristics, potential of geotourism, demands and expectations of students.

Introduction

Geotourism represents a new, constantly evolving form of tourism which is a feature of sustainable development of tourism. We have seen in recent years the rising trend in interest in geotourism thanks to the promotion and combination of geotourism with sport activities. It is necessary to promote this form in all public, government and business organizations that offer various types of holiday accommodation as the motivation for employees. Another option for promoting the development of geotourism is the integration of the so-called geotouristic products or the block teaching of students, who would thus gain experience from terrain and practice.

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Geotouristic tourism product which basis is a platform for geobjects in combination with sports activities in every season, appears in the current period as a competitive product since it can reach tourists of all ages, including families with children and seniors.

The co-author of this article is devoted to similar surveys in practice. Strba in geotouristic destinations Ždiar and Complová in Military District Javorina are also analysing these areas and identifying geotouristic objects in Slovakia [1], [2].

Physical Education and its position at the Technical University of Košice

Department of Physical Education at Technical University of Kosice (hereinafter KTV TU) offers to students the most complex program of teaching physical education that meet their expectations and needs. It offers a wide range of physical activities and relaxation to university staff. Its main objective is to actively work to improve physical fitness and performance of students. It develops a relationship to various forms of physical education by specialization in teaching. It offers the opportunity to expand the theoretical knowledge of students in field of physical education and gives space for growth in this field. With the most advanced athletes it ensures the preparation and representation of the university at various university events. Organizing block of activities ensures regular physical activity of the staff and students. It is worked out with sports clubs with connection to the Technical University of Kosice.

Physical Education at the Technical University of Kosice has the character of an elective subject and voluntarily chosen sport. The subject becomes mandatory for the student after he/she enrolls. The student chooses a specific physical activity of his/her choice, either by his preference to each sport or according to the individual time availability.

In the academic year 2013/2014 KTV TU offered students the opportunity to attend classes of physical education in 25 specialties. It also includes activities aiming at strengthening and toning the body e.g. fitness, Bosu, Pilates and Flow Tonic. As one of the three universities in Slovakia it includes teaching by SM-System method, which aims to teach students to properly stabilize the posture by stabilizing ropes and specific exercises assembled by Richard Smíšek, MD. The lessons attract a high level of interest not only among students but also among university staff. Department offers to students wide range of activities ranging from classic collective ball games to volleyball, indoor football, basketball and hockey. Racquet Sports, which attracts students, include Racketlon – mix of table tennis, badminton, tennis and squash, as well as the similar sports taught individually. Other sports include aerobics, bouldering, bowling, swimming, diving, biking and hiking. A specific form of teaching is a teaching block,

in which the Department provides wakeboarding, skating and also a form of winter and summer sports courses.

Thanks to the positive attitude towards innovations, department can expand learning of a new kind of hiking in cooperation with the Faculty of Mining, Ecology, Process Control and Geotechnologies (hereinafter referred to as F BERG), which provides teaching in the course of Geotourism.

Basics of hiking

Walking and hiking are one of the most natural and most popular types of tourism in Slovakia. The specific physical exercise for hiking is walking what is easy physical exercise of repetitive nature. Walking and hiking as sports play the great role in the development of cardio-vascular fitness. Performing the hiking leads to the reduction of aerobic energy supplies and increase of muscle fitness [3].

The Club of Slovak Tourists divides hiking into following [4]:

- walking,
- youth hiking
- ski hiking,
- cycling,
- water sports hiking,
- mountain hiking,
- horse-riding,
- tourism for disabled,
- performance hiking.

The main objectives of hiking as an undergraduate course of Physical Education at the Technical University of Kosice are:

- acquire theoretical basics of hiking,
- acquire basic natural exercises useful in hiking,
- develop a positive attitude to the natural beauty of the country,
- exploring the history of Slovaks in the nature,
- making new social ties.

University organizes winter and summer sport courses (hereafter LK) and this way becomes part of the active sports and cultural tourism at home and abroad. Physical education courses at KTV TU have their own stable place in teaching. A total of 175, 266, 286, and 265 participants attended the courses in 2010, 2011, 2012, and 2013, respectively. Participation in various forms of physical education courses, both summer and winter, are shown in Figure 1.

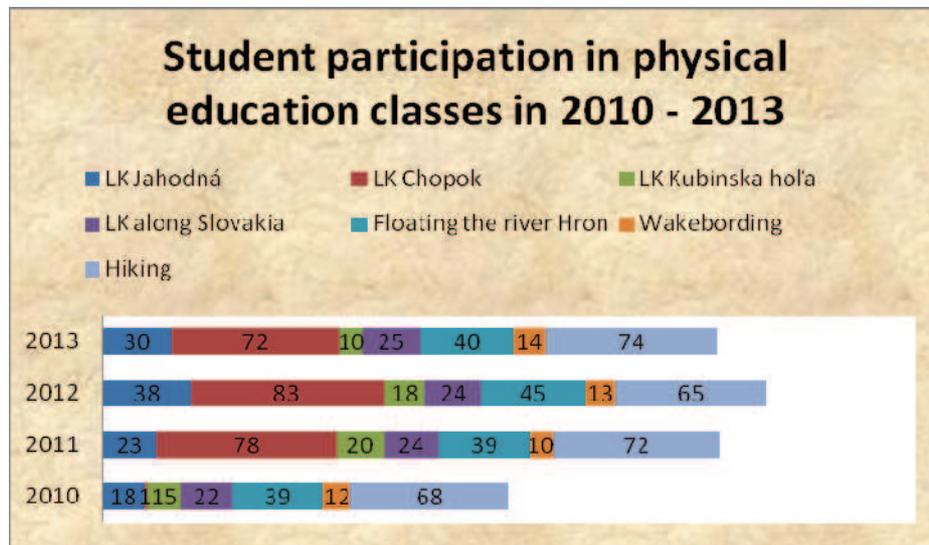


Figure 1. Student participation in physical education classes in 2010–2013 (authors, 2014)

What is geotourism?

The concept of geotourism was defined in National Geographic Traveler magazine in 2002 as tourism, which maintains or enhances the geographical character of the place – its environment, heritage, aesthetics, culture and well-being of the local population [5]. Schejbal defines geotourism as tourism which emphasizes the geographical nature of the visited place – its environment, culture, and heritage [6]. Rybár adds the need to highlight the historical and technical aspects, social ties and habits of the population in the study area to characteristics. He proposed to evaluate each geotouristic object from two point of views – as natural and as anthropogenic object. Consequently, for example it is possible to classify geotouristic objects for the purposes of promotion according to their attractiveness [7].

Geotouristical attractions in Slovakia

Geotouristic sites in Slovakia can be divided into following categories:

- cultural and historical monuments (castles, wooden churches, archaeological sites, ...),
- natural heritage sites (craters, waterfalls, forests, travertine, geysers, gorges, ...),
- technical monuments (mining works and monuments, forest railway, ship mills, ...),

— objects of folk architecture (open-air museums in nature, Slovak villages with preserved folk customs and traditions).

After we have become aware of territory of Slovakia from the available books, and electronic resources, but also by field survey of study area we suggest to add the objects defined in Tables 1, 2 and 3 into the program of study. The proposed targets were selected so that it was possible to create a schedule of block teaching by their appropriate combination.

Table 1. Examples of cultural and historic objects and folk architecture

Name of the object	Brief description of the object	Location
ČIČMANY	a village known for original wooden houses with a specific white ornamental decoration	Žilina region
OPEN-AIR MINING MUSEUM	the oldest and most extensive mining exhibition in Slovakia focused on the development of ore mining	Nitra region Levice
MUSEUM OF SLOVAK VILLAGE IN MARTIN	largest museum of folk architecture in Slovakia	Žilina region
SLOVAK AGRICULTURAL MUSEUM IN NITRA	part of the museum is an open-air museum, Nitra Field railway and a library	Nitra region
BOJNICE CASTLE	one of the most visited cultural sites in Central Europe, part of the castle is a natural travertine cave	Trenčín region
VLKOLÍNEC	purely wooden village included in the UNESCO World Heritage Site, it houses 45 original buildings of folk architecture and a wooden belfry	

Source: custom survey, 2014.

Table 2. Examples of natural objects of geotourism

Name of the natural object	Brief description of the object	Location
JÁNOŠÍKOVE DIERY	system of canyons and gorges in Krivánska Mala Fatra	Žilina region
ORAVA CASTLE CLIFF	protection of impressive geomorphological object – 112 m high cliff above the river Orava, which is Orava Castle	Žilina region
KORŇANSKÝ OIL SPRING	the highest situated Central European spontaneous discharge of oil from the ground	Žilina region
DOBROČSKÝ PRIMEVAL FOREST	old beech-fir primeval forest in central Slovakia, the entrance to the forest is permitted only with professional supervision	Banská Bystrica region
ANDESITE STONE SEA	emerged from the dissolution of andesite lava flow, consists of massive dark andesites	Banská Bystrica region

Table 2. Examples of natural objects of geotourism (cont.)

Name of the natural object	Brief description of the object	Location
SPIŠ CASTLE HILL	protection of the travertine hill, which differs from other travertine mounds of Hornád Basin in genesis	Košice region
KAVEČIANSKA HILLSIDE	protection of sites of mass occurrence of protected and endangered large-flowered Poniklec	Košice region
HERLANY GEYSER	the only cold geyser in Europe actuated by technical human intervention	Košice region
DREVENÍK RESERVE	travertine hill formed of mineral springs on the geological fracture, rich tower formations, fossil and archaeological finds, caves and abysses	Košice region Prešov region
CUKROVÁ HOMOĽA	highest rock tower in Slovakia situated in the Zádiel valley in the Slovak Karst	Košice region
MORSKÉ OKO	the largest volcanic lake in Slovakia localized in Vihorlat mountain range	Košice region
SIVÁ BRADA	protected area with travertine mineral springs	Prešov region

Source: custom survey, 2014.

From technical monuments it is possible to include in the learning process a visit to objects defined in Table 3.

Table 3. Examples of technical monuments in Slovakia

Name of the technical monuments	Brief description of the object	Location
SCHAUBMAR MILL	one of the largest brook mills of its kind in Europe	Bratislava region
PUG MILL IN TOMÁŠIKOVO	technical folk mill in southern Slovakia, the original preserved watermill with bottom-wheel drive	Trnava region
MOLPÍR	prehistoric fort to which leads nature trail	Trnava region
WOODEN BRIDGE IN KOLÁROVO	longest bridge with a completely wooden structure in Europe	Nitra region
SHIP MILL IN KOLÁROVO	the last specimen of a floating mill and the only ship mill in Slovakia	Nitra region
HAVRÁNOK	unique archaeological park documenting the presence of the Celtic population in Liptov	Žilina region
FOREST RAILWAY VYCHYLOVKA	historic narrow-gauge forest railway in Vychylovka at Kysuce, a technical monument of world importance	Žilina region
MINT IN KREMNICA	in the local mint coins have been struck for almost 700 years	Banská Bystrica region

Table 3. Examples of technical monuments in Slovakia (cont.)

Name of the technical monuments	Brief description of the object	Location
ŠTIAVNICKÉ TAJCHY	In the past, lakes built for the needs of local mines	Banská Bystrica region
TURKISH BRIDGE IN POLTÁR	is the third oldest preserved bridge of its kind in Slovakia	Banská Bystrica region
VIADUCT AT HANUŠOVCE	is the longest railway bridge in Central Europe built in the arc	Prešov region
NOBLE ICE-CELLAR ROOMS IN VLACHOVO	a simple small stone building constructed into the hillside as basements closed by metal door	Košice region
FORGES IN MEDZEV	forges and mills in Medzev	Košice region

Source: custom survey, 2014.

There is currently a large number of brownfields – dilapidated buildings in Slovakia which have arisen as a secondary consequence of economic and social change. After enterprises had lost their importance, they remained abandoned and deteriorated. As an example we can mention large production halls, polluted and neglected land. Brownfields are often located near urban centers. Revitalization of these objects for the needs of tourism can lead to the preservation of the natural environment without the need for building new tourism entities in the “green area” [8]. These objects can be scheduled in the block where the students can familiarize themselves with the negative consequences of human behavior towards nature.

Aim

The aim of this work was to confirm the interest of the monitored target groups (university students aged 19–30 years) in a new form of tourism enriched in information and then physically getting to know the geotouristic objects with the purpose of development of geotourism in Slovakia.

Material and Methods

We kept on mind above mentioned and so we have conducted an interview based survey, which was primarily focused on finding the interest in a new form of physical education – geotouristics available from Physical Education Department. Survey respondents were randomly approached students of all faculties of the Technical University of Kosice. The survey was conducted in the month of February 2014 and it involved 300 respondents. We have offered a leaflet to re-

spondents with the new physical education courses containing a schedule of tours and lectures of tourism and geotourism.

The survey was aimed at verifying the following hypotheses:

- Hypothesis 1: More than 60% of the interviewed students show interest in physical education courses in the form of block teaching enriched by geotouristics
- Hypothesis 2: More than 30% of students show interest in geotouristics by regular teaching during the semester – once a week

Results and Discussion

In order to obtain the information about a possible interest in geotouristic physical education courses as a tool for development of geotourism at universities the method of a questionnaire survey was used. Respondents were approached by a 6 item questionnaire with 6 closed questions. We have evaluated the results of research and the material was statistically analyzed. For the evaluation of the data obtained, we used the basic methods of descriptive statistics. The Survey involved 148 women and 152 men aged 19–30 years.

The highest representation in the survey (31%) was recorded among F BERG students, the lowest representation among students of Faculty of Aeronautics (hereafter LF) (2%). Total number of students surveyed according to university faculties is shown in Figure 2.

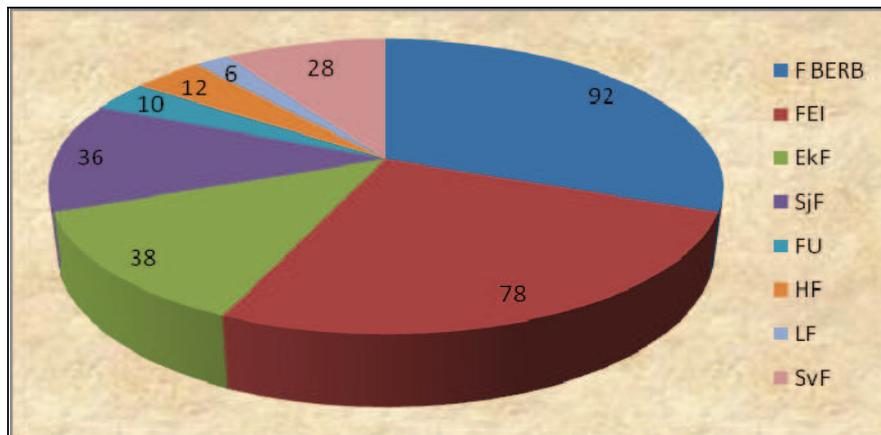


Figure 2. Student participation in the survey - the representation according to university faculties (authors, 2014)

Note: F BERG – Faculty of Mining, Ecology, Process Control and Geotechnologies, FEI – Faculty of Electrical Engineering and Informatics, EkF – Faculty of Economics, Sjf – Faculty of Mechanical Engineering, FU – Faculty of Arts, HF – Faculty of Metallurgy, LF – Faculty of Aeronautics, SvF – Faculty of Civil Engineering

In order to determine whether the students of the Technical University of Kosice are interested in geotourism, we have asked two closed questions. 62% of the surveyed students were interested in the offer to visit natural, cultural, historical and technical monuments in Slovakia as the part of their block teaching. 44% of the students answered, that they would be interested in geotourism as a regular weekly teaching.

In order to prepare a draft timetable for the block teaching of geotourism, we have asked several questions regarding the preferred length of physical education courses and the period in which physical education courses should be held. 81% of students would prefer passing physical education courses in the summer semester of the academic year. The preferred length of physical education courses is shown in Figure 3.

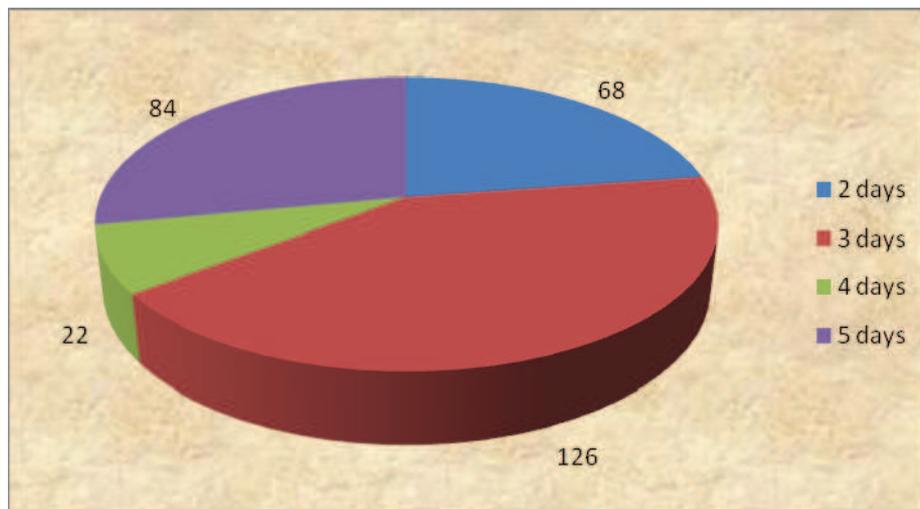


Figure 3. Preferred length of physical education courses (authors, 2014)

We have confirmed, that there is a potential in the integration of the geotourism into education process. The results of the questionnaire survey show the high interest in a new form of physical education students at the Technical University of Kosice. We recommend to the Department of Physical Education of Technical University of Kosice to include geotourism in education programme. We propose to conduct a survey showing the students' expectations and their satisfaction with the form and content of the new form of physical education courses. This survey should be conducted after the integration of the geotouristics in the education process.

We have prioritised the pedestrian form of tourism in our model solution which is one of the most popular types of tourism. It is easy and therefore suitable for the monitored target audience. In the future, after positive references to

the newly established form of tourism in teaching physical education and sport at the Technical University of Kosice, the designed model can be offered to universities in Slovakia. It is also possible to evolve geotouristics into the form of cycling tourism.

Proposal for model solution of geotouristics entry into the teaching process in the form of block teaching

We are proposing the Fatra mountain range as the geotouristics destination, which is one of the most beautiful mountains in Slovakia and because of its natural, cultural and historical characteristics. It is a good place for the development of geotourism in Slovakia. A draft timetable of block teaching of geotouristics is shown in Table 5.

Table 5. Draft timetable of block of instructions in the Mala Fatra

		Block teaching schedule – geotouristics
Day 1 Monday	10:00 hod.	meeting of participants at the Department of Physical Education
	10:30 hod.	familiarity with the principles of safety during teaching block + written record of the training carried out
	11:00 hod.	departure by bus to Mala Fatra
	15:30 hod.	arrival at the accommodation, lodging Terchová the formalities
	17:00 hod.	lecture on the topic: Basic information about hiking – equipment, route selection, budget – orientation in the terrain: maps, scale, compass, GPS – tourist signs: sign, turn signals, rocks – tourism and weather: fog, rain, snow – first aid
	18:30 hod.	geotouristic lecture to hike Nr. 1
Day 2 Tuesday	08:00 hod.	The hike Nr. 1 Janosik hole – a big circle – System of canyons and gorges in the NRP Rozsutec difficulty: moderate Duration: about 4 hours geotouristics – waterfalls and rock formations in the reservation Topography
	14:30 hod.	Geotouristics – visit to the Terchovská museum – exhibition Janosik – visit to the church. Cyril and Methodius – wooden nativity scene – Completion under the statue of Janosik in the heart of Terchova
	18:00 hod.	geotouristic lecture to hike Nr. 2

Table 5. Draft timetable of block of instructions in the Mala Fatra (cont.)

		Block teaching schedule – geotouristics
Day 3 Wednesday	08:00 hod.	No The hike. 2 Snilovske saddle - Large Kriváň - Stack Difficulty: Moderate Duration: about 4 hours Topography
	14:30 hod.	visit to the recreation center Terchovec
	18:00 hod.	geotouristic lecture to hike Nr. 3
Day 4 Thursday	08:00 hod.	No The hike. 3 Old Castle + asphalt quarry difficulty: easy Duration: 2.5 hours geotouristics - the lowest point of Mala Fatra, asphalt quarry Nez- bud, NPR Old Castle, Old Castle ruins Topography
	14:30 hod.	tour of the castle Strečno
	18:30 hod.	geotouristic lecture to hike Nr. 4
Day 5 Friday	09:00 hod.	leaving the property Terchová
	10:30 hod.	No The hike. 4 Sutovsky waterfall – Mala Fatra largest waterfall (38 meters) difficulty: easy Duration: approx 1:25 pm.
	14:15 hod.	Lunch – chalet Landscape
	15:30 hod.	Departure by bus to Kosice
	18:30 hod.	coming to campus TUKE

Source: authors, 2014.

Conclusion

Geotourism has a great development potential not only Slovakia and is an appropriate tool for enrichment of different forms of tourism in recreational sport. It serves as the innovation element in the area of sport after it is implemented in the physical education. It is also an interesting offer for the students who are curious to try this form of teaching. Also students who would like to increase general competence or they are interested to see beauties of their homeland find this form interesting.

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Abstrakt

Geoturistika – jedna z foriem rozvoja geoturizmu na Slovensku

Predkladaný článok sa zaoberá zavedením do praxe a následným prijatím novej formy turistiky medzi poslucháčmi vysokých škôl žijúcimi na Slovensku (vo veku v rozmedzí 19–30 rokov) s dôrazom na jej využitie vo vyučovacom procese ako aj v oblasti rozvoja geoturizmu na Slovensku. Na základe vykonaných prieskumov a analýz poukazuje na potenciál geoturizmu ako nástroja rozvoja cestovného ruchu na Slovensku a rovnako na potenciál rozvoja rekreačného športu. V závere článku je zafinované modelové riešenie vstupu geoturistiky do vyučovacieho procesu na vysokých školách v Slovenskej republike na príklade geoturistickej destinácie Malá Fatra.

Kľúčové slová: geoturizmus, rozvoj geoturizmu, rozvoj rekreačného športu, vyučovací proces, študenti a geoturistika, potenciál geoturizmu, dopyt a očakávania študentov.