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ORIGINAL ASPECTS REGARDING THE MONITORING OF THE EFFORT OF STUDENTS FROM THE UNIVERSITY OF BUCHAREST, WITHIN THE LESSONS OF MOUNTAIN SPORTS ACTIVITIES

Aspecte originale privind monitorizarea efortului studenţilor Universităţii din Bucureşti, în cadrul lecţiilor de Activităţi Sportive Montane

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Abstract

Benefiting from numerous educational and formative valences, mountain sports activities combine a range of physical and intellectual qualities that give it a privileged status among free-time motor activities. It is a sport that involves low costs of organizing and participating in competitions, being suitable for both sexes and for all ages.

This discipline, shortly introduced in the DEFS 'curriculum, responded to a need to diversify the socio-educational interests of university of Bucharest` students.

Through its specific objectives and tasks, mountain sports activities contribute to the psycho-somatic and social development of practitioners, becoming in the last year one of the most beloved sport disciplines in the curricular area at the students' disposal.

The present paper, through its content and its approach, aims to highlight the main aspects of the specific effort, registered during the mountain applications in the academic year 2017-2018. The obtained data are based on objective, efficient and modern monitoring, used for the first time at the level of non profile higher education, thus providing an overview of the specific demand for these activities.

Keywords: monitoring, mountain sports activities, students

Introduction

Modeling the personality of the young generation has always been a concern of great interest in the human community. The formation of modern man implies its development from a physical, mental, aesthetic, moral point of view, etc., in other words a multilateral development in relation to the demands of contemporary society (Dumitrescu R., 2013).

The obvious increase in the role of education in the development of young people implies the increase of the activities through which this can be achieved, respecting the methodology, the content and the objectives proposed at this level. It is appreciated that free time activities can be a means of educating the personality of the young people in training, for this purpose it is possible to develop training programs that will cultivate, honesty, respect for the own sentiments, care for others and the self-discipline (Moldovan, E., 2007).

Use of leisure time poses a delicate problem, especially for the younger generation, which must be oriented towards profitable long-term activities, instead facile or dangerous distractions (Bota, A., 2006).

For the younger generation, mountain sports activities, such as mountain tourism, are a way of spending leisure time in nature, with important physical and psychic effects.

Vîlcu, M., (2013) quoted by Dumitrescu R., (2013), says that after a study in New Zealand, it was concluded that people who go to the mountains frequently are more optimistic than the others and more than they have a greater concentration and synthesis capacity. This is due to the mountain, because the mountain helps to observe what is really important in life and it helps in making logical and rapid decisions in extreme situations.

In walking a mountain trail, the physiological effort is much more intense than the one experienced to the plain because the body is exposed to a bioclimate where the atmospheric pressure decreases by 11-12 mmHg for every 100 m altitude, reaching 760 mmHg , in conditions of 580 - 600 mmHg at the altitude of 2000m (Bucegi Mountains Plateau). As far as the atmospheric O_2 pressure is concerned, it represents at the altitude of

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2000m only 15.8% of the air volume compared to 20.95% at the seventh. The air temperature decreases as we rise vertically by about 0.5^0C for every 100m, winter, and summer with 0.7^0 C in the summer (Dragan, I., 1989).

WORKING METHOD AND INTERPRETING THE DATA PROVIDED BY THE SUUNTO – SYSTEM

In 1933 the company's founder, Tuomas Vohlonen, a surveyor by profession, applied for a patent for a unique method of filling and sealing a lightweight compass housing made entirely of celluloid and filled with liquid to dampen the needle and to protect it from shock and wear due to excessive motion.

The electronic device SUUNTO for effort monitoring (Fig. no. 1) provides the ability to record the effort parameters, and the information can be downloaded to the PC, where through the www.movescount.com website, all this information is read in very easy-to-read graphs understood and pursued.

Fig. 1. Electronic device for training monitoring

Operational and methodological framework

The purpose of research: aims to highlight the main aspects of the specific effort, registered during the mountain applications in the academic year 2017-2018. For this research, 6 subjects, students of the University of Bucharest, who participated in the 3 mountain applications provided in the DEFS educational plan, were monitored as follows:

1-Group I 17-19.11.2017;
2-Group II 24-26.11.2017;
3-Group III 8-10.12.2017.

Materials and Methods

Observation method:

Through its content and many forms of presentation, observation is one of the most appropriate methods to explore the natural environment. As a scientific method of research, it consists in "tracking deliberately, carefully and methodically the aspects of facts, processes, events and the accurate and systematic recording of their various manifestations, as they behave in natural, normal conditions, in order to present them in their essential aspects in an existing situational context" (Niculescu, 2002).

The actual monitoring of the subjects of the selected subjects was done by using the SUUNTO electronic device throughout the daily practical activity provided in each application. Although the monitoring was carried out in an individual manner, the results obtained could be extrapolated, within certain limits, to the activity of the entire group of students, given that the objectives and tasks specific to each activity were fulfilled under the same organizational and methodological conditions.

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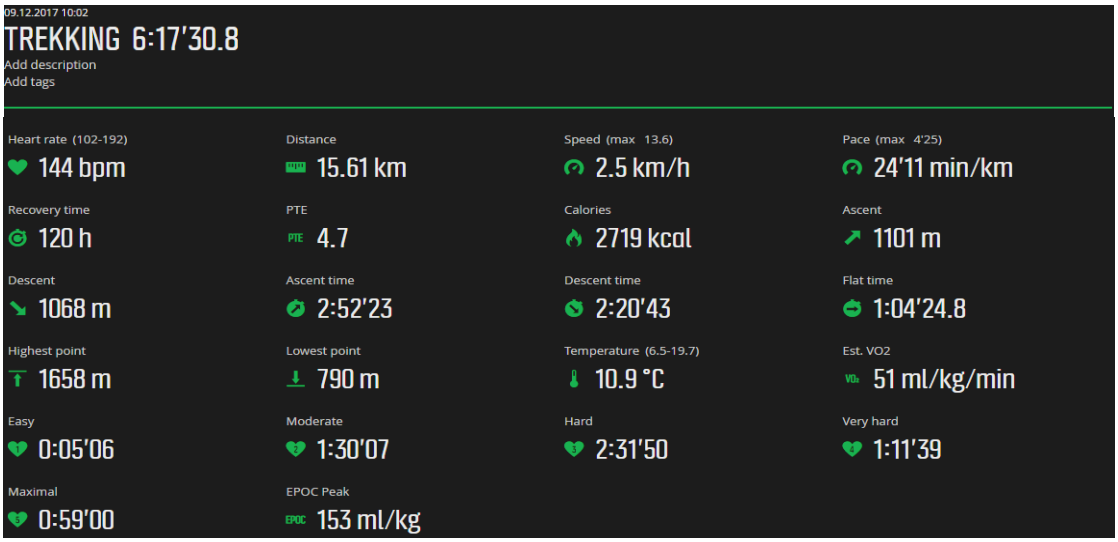

Fig. 2. Parameters of physical effort

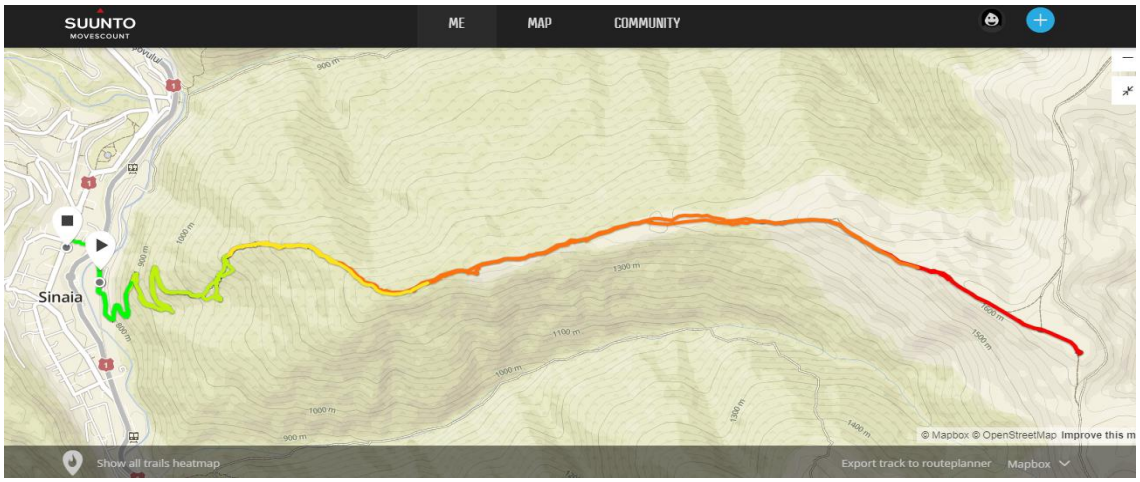

Fig. 3. Route map

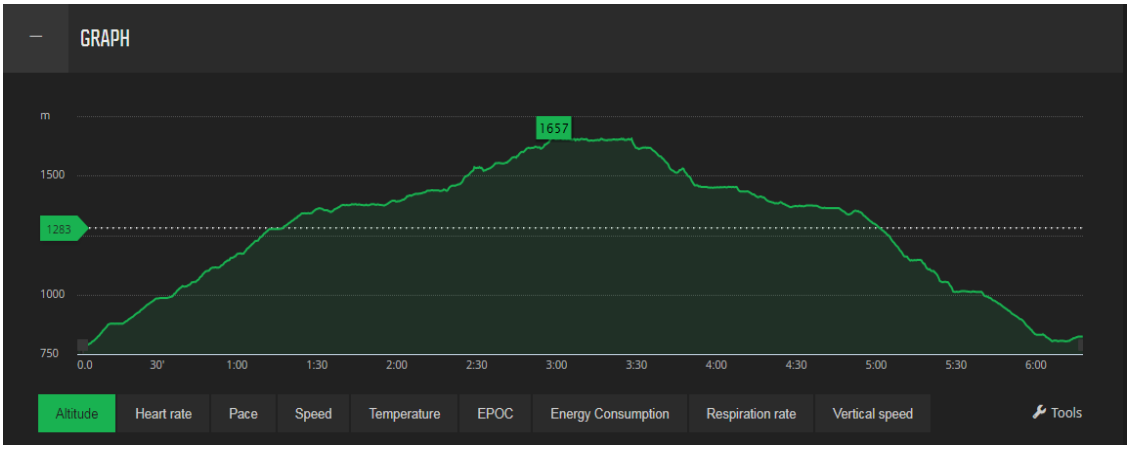

Fig. 4. Altitude chart

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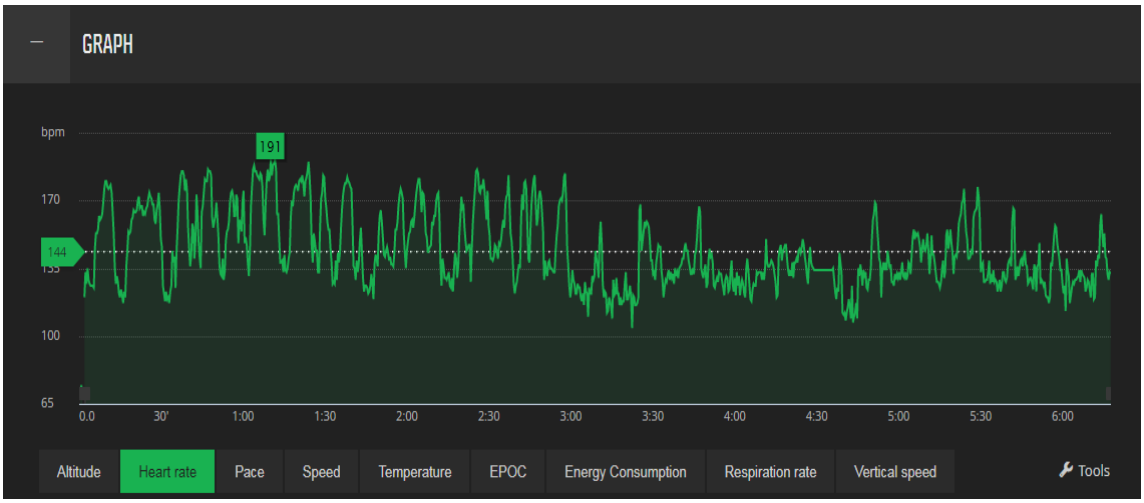

Fig. 5. Heart rate

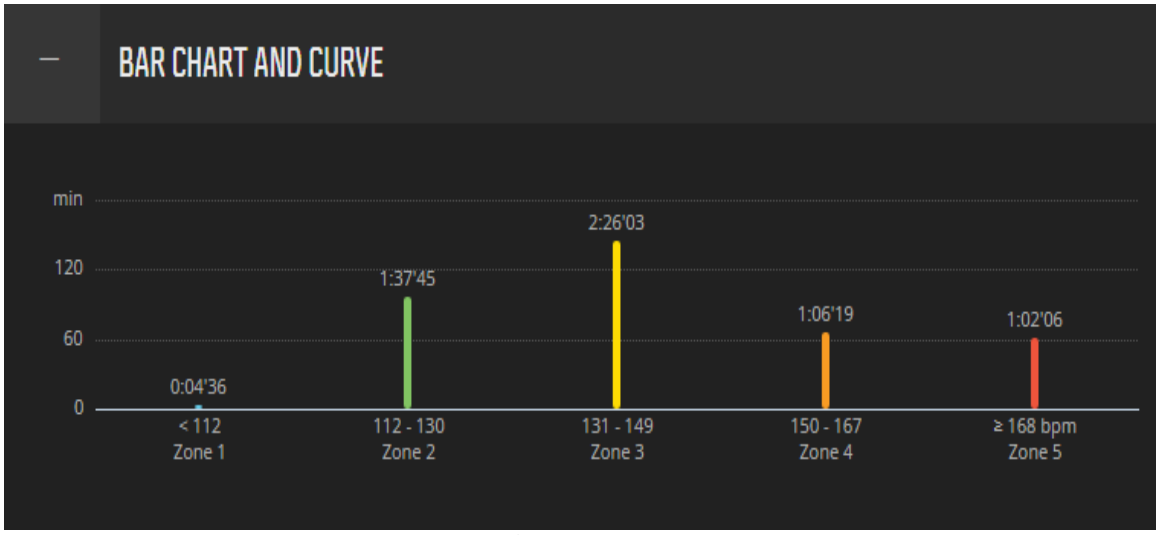

Fig. 6. Heart rate zone

Table no. 1. Effort parameters

Effort parameters				
	Km	m/ vertical	Time/hours	Kcal
Group I	25.13	1733	9.47	4408
Group II	22.1	1234	10	3184
Group III	25.67	1656	10.27	4405

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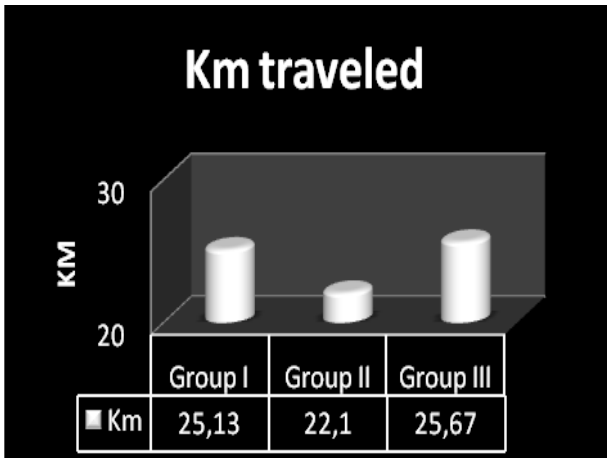

Fig. 7. Km traveled

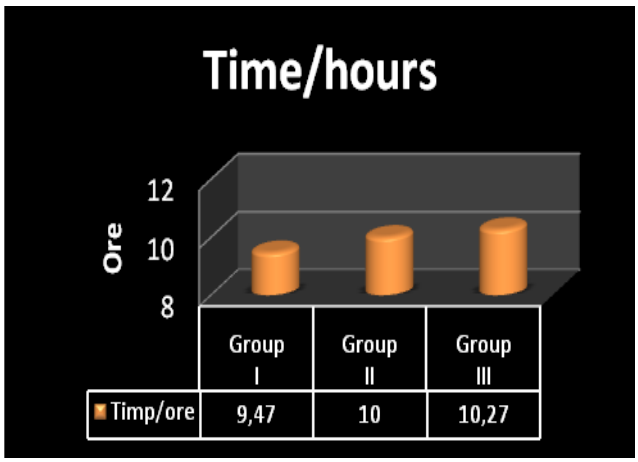

Fig. 8. Time / hours

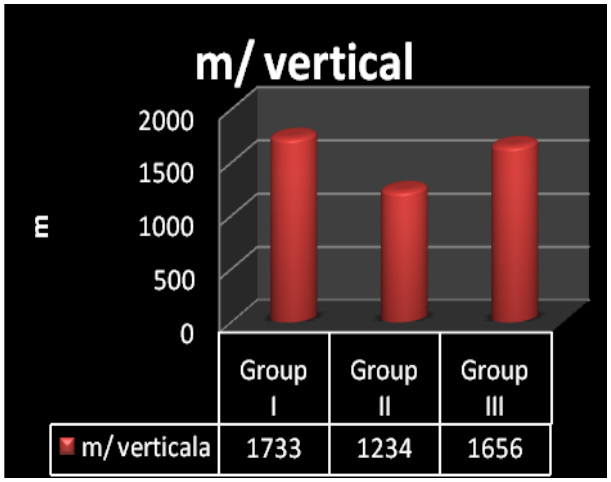

Fig. 9. m/ verical

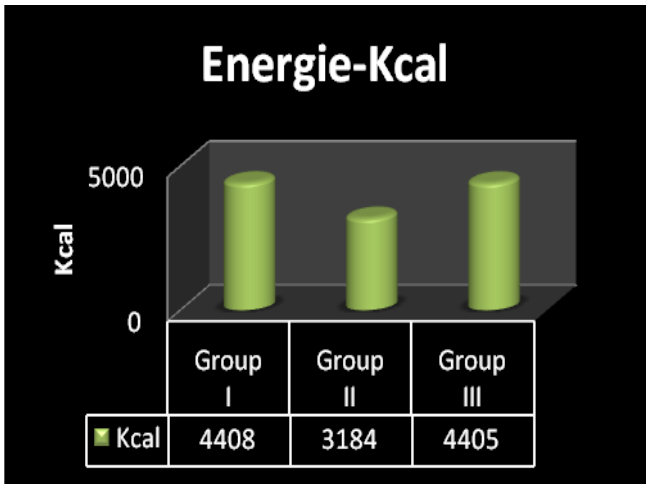

Fig. 10. Energi- Kcal

Conclusions

The analysis and interpretation of the obtained results highlights the fact that during the three mountain applications, the specific requirements of this discipline are at a higher level compared to other types of leisure activities, especially due to the particular conditions of development (environment, duration, equipment, etc.)

Of the many monitored functional parameters, aspects related to heart rate, duration, distance, level difference and energy consumed are of particular interest, especially in terms of evaluating both the specific tasks of each application and the particular physical condition of the subjects involved .

The scientific approach developed and analyzed above highlights original aspects regarding the importance and opportunity of using modern and efficient means of monitoring the parameters of the effort specific to the various types of motoric activities. Moreover, the information provided by the device used in this research contributes to the optimization of the planning and programming strategy of the practical activity of the students enrolled in mountain sport acivities discipline, taking into account both the specific effort characteristics and the morpho-functional particularities of direct beneficiaries.

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