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APPLICATION OF SWIMMING IN CAMPING AND OUTDOOR ACTIVITIES*Abstract*

The population covered by the survey included 30 male students who had their practical training in Activities in nature in the stationary camp at Tjentište. The sample consisted of a group of students of the Faculty of Physical Education and Sport, University of East Sarajevo, who had practical training activities in the countryside in July 2008. Another group of selected respondents were students of the Faculty of Physical Education and Sport at the University of East Sarajevo, and they had their practical training activities in the countryside in July 2009. The sample of variables related to the use of the swimming at the artificial lake of Tjentište, and the track was about 200 meters. The initial and final measurement was conducted in July 2008 for one group of students, and the second group of students had the same measurement in July 2009. In addition to the descriptive statistics of the measure of central tendencies (minimum, maximum, mean, standard deviation), the analysis of the results at the initial and final measurements used t-test for small sample of 30 respondents in the group. The analyzed results of the research did not have statistical significance related to the difference between the initial and final measurement, although it is evident that there has been a change in the numerical results.

Key words: *applied swimming, students, lake, camping, outdoor activities*

1. INTRODUCTION

"There are several definitions of the concept of swimming, and almost all have in common that swimming is a set of coordinated movements that allow a man to keep on the surface of water and to move in it back and forth with the help of the extremities. There are several types of swim: swimming which takes place on the surface of the water and under the water surface that usually is referred to as diving or snorkeling. During the adoption of certain techniques and knowledge of swimming the human body goes through a phase of floating, and that is the ability to maintain body on the surface of water without help because the body of a swimmer is in a water environment that is unstable or without a solid support, and in such circumstances the person uses a number of different movements that are not used for movement on land." (Vuković, 2006). "Knowledge of swimming, as the ancient Romans used to say, is an integral part of the general culture and human life, but also its vital needs and skills. In terms of pedagogical-psychological, health and hygiene, education, and especially utilitarian character

it occupies the first place in the hierarchy of all the physical (sports) activities. It is not without reason, that experts in physical (bodily) culture classify swimming into the most significant group of sports, the so-called basic sports. The water itself provides an abundance of a variety of activities, in water and on water, with a wide range of utility values. With a significant competitive sports program (through sports and artistic swimming, water polo, diving, scuba diving and other active sports), the stay in the water may be of purely economic character." (Kazazović, 2008).

"Water, a mystical element, foreign territory for human beings, has made life boldly penetrate here with curiosity and courage of divers. They simply specialized in another way of life, rich in mysterious adventures. It can be certainly marked as one of the most important tasks of one's future profession that teachers of physical and health education prepare themselves, but this also applies to all rich aqua sports families, soldiers and police officers, who are to be enabled for fast and safe intervention in water to save a person's life." (Kazazović, 2008).

Therefore, swimming is a moving action through water which, in addition to keeping oneself on the surface enables forward motion in the desired direction. Diving is an activity that takes place under the water, that is below the water surface, and when swimming it is possible to breath (inhalation of atmospheric air) because the mouth and nose are located outside the water while inhaling. Swimming is important, recreational activity, and also competitive (absolute) sport without weight sport categories. Although swimming is a very healthy activity, there is a continuing and constant danger of drowning unless the assessment of capability and preparedness has been made and the natural conditions of water such as sea, lakes and rivers have been taken account. For this reason, caution and safety are to be obeyed. Swimming is one of the basic sports that exists in a different form as sole or one of other sports disciplines. In addition to sport swimming there is also synchronized swimming, sport in and on water with a ball such as water polo and the swimming is one of the disciplines of the triathlon and modern pentathlon. There are also sports that do not involve swimming within the competition but going in for such sports requires swimming skills. These include: kayaking, canoeing, sailing, rowing, diving, scuba diving, rafting, surfing, nautical sports and other sports related to the natural conditions of water: in the sea and the lake. "Regardless of the distance which in competitions ranges from 50 (164 ft) to 1,500 m (1640 yd) ambition of every swimming race is to move certain track in the shortest possible time. Each race requires a certain swimming style or a combination of the four swimming styles: breaststroke, backstroke, butterfly (dolphin) and freestyle (crawl). There are individual and team races; in team racing four swimmers from each country compete against each other, and this race is usually held at the end of the swimming competition." (Stubbs, 2015). "Camping is one of the shorter stays during outdoor activities. Most common is camping outside the populated area, and civilization of great cities. During camping the tent is used as a basic accommodation, sometimes camping vehicles, but there are also those who use a sleeping bag. During the selection of appropriate camping site the care should be taken that the place is dry, drainable, with a gentle slope, sheltered from the wind, next to the forest with the trees, that it is far from the ponds and swamps. It is desirable to have a source of drinking water near or urbanized camping area. If you are camping in a mountain area near the top, take account of the rock creep landslide or rock avalanches. The tent is installed on the selected site with the lowest exposure to the wind." (Dixe, 2011).

1. METHOD

"Swimming as a specific outdoor activity is somewhat different from the swimming which is carried out in the pool. The pool water is calm, the environment is familiar, we see the bottom, and water is clear and transparent. When we talk about swimming in the river, lake and sea, it

is quite different. You never need to indulge in adventure by stepping into unknown waters in any way. In particular dangers can be found with swimming and bathing in unfamiliar and fast rivers where you can easily get to unintended consequences. Children and adults as well must go swimming in rivers, lakes or seas in organized groups and to designated sites. During these excursions organizer must strictly take into account the non-swimmers, and always keep swimmers under control. "(Vučković, Savić, 2002)." Forcing the water surfaces is a form of crossing certain areas, including rivers as the shortest ones. With certain marches it is sometimes necessary to cross the river at a place where there is no bridge or a means of transport that will enable us to move more easily. Such situations most commonly result in forcing the river. "(Vučković, Savić, 2002)." Applied methodology is used to describe adequate research techniques and instruments, as well as appropriate statistical procedures by which the collected data will be quantified. Therefore, the chapter includes four characteristic sections: 5.1. Process and methods of research, 5.2. Sample of respondents, 5.3. Sample of variables and the manner of their measurement and 5.4. Statistical data processing. Section 5.2. is usually referred to as Sample of respondents, less frequently as Sample of entities. It presents all the data related to the specific characteristics of the respondents, mostly in relation to sex, age and anthropological category. During the sample description it is necessary to specify the exact number of respondents in the entire sample, as well as in the sub-samples, wherein it is necessary to define the criteria for the classification of respondents in the sub-sample. This section specifies: the number of the respondents planned to be explored, the age and sex of respondents, whether it concerns the top or the average athletes, whether they are trained or not trained people, whether they are healthy or convalescents, whether they originate from urban or rural areas, what their educational level is, in which club they train or which school they attend and so on. The next section of the scientific project defines the variables to be researched and describes the instruments intended to collect relevant information about them. Therefore, it is customary to title this section: The sample of variables and methods of their measurement. Defining the variables starts with their classification into characteristic methodological groups, according to two basic criteria (1) anthropological (or measuring) nature of the variables, and (2) the nature of the methodology. The first criterion is about the anthropological space that variables come from, and based on it, the following can be separated, for example: morphological variables, motor, psychological (cognitive, affective, conative ...) social, technical, tactical and many others. According to a second criterion (the methodological nature), all variables can be divided into two basic groups: the dependent (or criterion) and independent (or predictor). Methodological variables are determined by the research problem and the content of the research project. So it can happen that one and the same variable can have the status of the predictor in one study, and in other of criterion variables. There are studies that operate with variables of the same methodological character, wherein the independent variables are most common of all. It, for example, occurs in longitudinal studies that analyze changes in individual motor and functional performance under impact of various kinesiology operators. Accordingly, the predictor and criterion variables can be categorized primarily in research of transversal character, while the works of longitudinal character usually include only independent variables."(Perić, 2000).

"In addition to testing the difference of two arithmetic means or calculation of the t-value, regardless of the size and the kind of sample, includes basically the same: calculating the absolute difference (difference-DM) and the standard errors of these differences, and then placing these two values in the ratio. What makes an individual testing procedure specific, however, is the method of calculating the standard error of arithmetic mean differences. The standard difference between the dependent and independent samples, is that the standard error in the dependent samples is corrected by the coefficient of correlation which indicates the strength of the mutual connection of the compared statistical series. This rule, is valid both for

large and small samples, that is for the ones that count less than thirty entities. Therefore, when calculating the standard error of the mean difference of small dependent samples, it is necessary to first calculate the correlation coefficient and then include it in the formula for its calculation. This means that this requires to repeat the procedure applied in the treatment of large dependent samples. "(Perić, 2001)

Sample of respondents

One sample group of respondents consisted of the students of the Faculty of Physical Education and Sport, University of East Sarajevo, who had practical training activities in the countryside in July 2008.

The second group of selected respondents included students of the Faculty of Physical Education and Sport, University of East Sarajevo, who had practical training activities in the countryside in July 2009. The population covered by the paper research had 30 male students who had practical training activities in nature in the stationary camp on Tjentište.

Sample of variables

The sample of variables related to the use of swimming across the artificial lake on Tjentište, and the section was about 200 meters. Selected variables were related to the students who participated in the initial and final measurements in 2008 and 2009.

Description of the test

Start was above the water, at the sound of a whistle and the completion of the test was coming to the finish line after crossing the section swimming. The measurement was carried out with a professional stopwatch with accuracy of 100 seconds.

2. RESULTS WITH DISCUSSION

Table 1, descriptive statistics of results in swimming for students in 2008 and 2009

	<u>Valid N</u>	<u>Mean</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Std. Dv</u>
PL8I	30	317,69	189,41	478,12	78,37
PL8F	30	289,40	221,62	378,62	47,24
PL9I	30	319,31	202,71	386,91	53,86
PL9F	30	297,90	165,51	419,48	64,43

The table 1 shows that the presented results of descriptive statistics are as follows: for student population of 2008, the minimum score on the initial measurement (PL8I=189.41), and there is also the best time achieved during the swim, while the maximum result (PL8I=478.12) and there is also the worst, and the mean value (Mean=317.69), with a standard deviation (Std.Dv=78.3). The same population at the final measurement has the following: (PL8F=221.62), while the maximum score (PL8F=378.62) is the worst and the mean value (Mean=289.40), with a standard deviation (Std.Dv=47.24). The generation of 2009 had the following parameters: (PL9I=202.71), there is also the best time during the initial swimming, while the maximum result (PL9I=386.91) at the same time is the worst and the mean value

(PL9F; Mean=319.31), with a standard deviation (Std.Dv=53.86). The 2009 respondents had the following results at the final measurement: (PL8F=165.51), which is the best result of this generation, and the maximum score (PL8F=419.48) is the worst and the mean value (Mean=297.90), with a standard deviation (Std.Dv = 64.43).

Table 2, t-test, initial and final measurement in 2008

	Mean	Std. Dv	N	Diff.	Std: Dv.	t	df	p
PL8I	317,69	78,37						
PL8F	289,40	47,24	30	28,29	81,77	1,89	29	0,06

The Table 2 shows that at the initial and final measurements there is negligible significant difference (t-test=1.89), and practical teaching activities in the countryside had no significant effect on swimming in natural conditions at measuring with the students in July 2008.

Table 3, t-test initial and final measurement in 2009

	Mean	Std. Dv	N	Diff.	Std: Dv.	t	df	p
PL9I	319,31	53,86						
PL9F	297,90	64,43	30	21,42	78,62	1,49	29	0,15

The Table 3 shows that at initial and final measurements there is negligible significance of differences, t-test (t=1.49), and practical teaching activities in the countryside had no significant effect for swimming in natural conditions by measuring with the students in July 2009.

Table 5, t-test initial and final measurement in 2008 and 2009

	Mean	Std. Dv	N	Diff.	Std: Dv.	t	df	p
PL8I	317,69	78,37						
PL9I	319,32	53,86	30	-1,63	97,8	-0,09	29	0,92
PL8II	317,69	78,36						
PL9F	297,90	64,43	30	19,79	92,16	1,18	29	0,25
PL8F	289,40	47,24						
PL9I	297,90	64,43	30	-8,50	72,70	-0,64	29	0,52

The results in Table 4 show the following values: at the initial measurement in 2008 and 2009, with an analysis of t-test (t=-0.09), which shows that the students have a significant dispersion in the swimming score, while at the initial and final t-test is (t =1.18), whereas at the final measurement in 2008 and initial in 2009 t-test is (t=-0.64). Substantial differences exist, but they are not significantly reported in terms of statistics, indicating that the student population has a wide range of dispersion results in applied swimming in natural conditions.

"The speed of the stroke, as well as the power of the stroke is in close connection with the speed of swimming, and there is a high correlation between these factors. This high correlation occurs only in so-called balanced relations, when relations between the stroke speed, the stroke force and stroke techniques are aligned. Stroke can be carried out more slowly with the abstraction of the mass of water, which means the engagement of a higher force, and it can be performed faster and with less weight of water abstraction, which involves less force." (Madić, Okičić, Aleksandrović, 2007). "Swimming across the lake most commonly refers to breaststroke swimming technique, though it is the slowest, but nevertheless the most applied one (with the students). The swimming tempo should be adapted not only to age but also to capability of the participants. The section to be crossed depends on the track and the temperature of the water and for the students about 800 m is quite sufficient. Besides swimming, the river can be crossed with other mode when the participants hold hands and master the water obstacle in chain. Naturally, the water in the bar draft should not be too fast and deep and not above the waterfall and similar. The rapids, where water is deep and fast should be crossed in position on the back, head facing upstream, with hands trying to swim master the water barrier that carries us and get to shore." (Švraka, 2007). "Open waters such as oceans, seas, lakes, canals, rivers and other waters are suitable for the implementation of the sports discipline of open water swimming or endurance swimming. Open water swimming is one of the disciplines from the arsenal of sports activities in the nature in which the indoor space is limited by the pool dimensions. To oppose the distance is not the only one opponent within the psychological sphere that confronts the mind of a swimmer. In addition to the distance on open waters there are also other specific opponents. Open water swimming is organized so that the start is from the bank or shore, the designated section is crossed by swimming along the course to the buoy around which the swimmer turns and proceeds back to the starting position." (Miletić, 2011).

3. CONCLUSION

The population covered by the survey included 30 male students who had their practical training in Activities in nature in the stationary camp at Tjentište. The sample consisted of a group of students of the Faculty of Physical Education and Sport, University of East Sarajevo, who had practical training activities in the countryside in July 2008. Another group of selected respondents were students of the Faculty of Physical Education and Sport at the University of East Sarajevo, and they had their practical training activities in the countryside in July 2009. The following values were shown in the initial measurement in 2008 and 2009 with the t-test analysis ($t=-0.09$), which shows that the students have a significant dispersion in the swimming score, while the initial and final t-test was ($t=1.18$), and final 2008 and initial 2009 t-test was ($t=-0.64$). Substantial differences exist, but they are not so significantly expressed in terms of statistics, indicating that the student population has a wide range of dispersion results in applied swimming in natural conditions at the camping stationary site Tjentište in the National Nature Park of Sutjeska.

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