involved with the technical and tactical actions in order to increase the play efficiency of the team and of the players (Table No.2) and therefore requires a strict evaluation of these physical qualities with appropriate and effective assessment tools.

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THE RELATIONSHIP BETWEEB STUDENTS' INTEREST FOR PHYSICAL ACTIVITIES IN THEIR FREE TIME AND THEIR HEALTH

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Abstract

Nowadays society is modern and democratic and needs active people that are willing to get involved in managing and responsibly organising their activities and choices, as well as the ones of others around them. Young people are used to managing their free time and this leads to the alternation of learning and leisure activities. Due to the complexity of the performed activities, we work more than we rest, our free time is shorter and shorter, and when we have free time, we need to take advantage of it, according to our needs and interests. The way we use our free time differs from one society type to another, usually depending on the degree of social and economic development of that society. Every single person is responsible for the way he or she uses that free time.

Purpose. We wish to offer every student the possibility to develop independently their physical, intellectual and moral abilities by practicing physical activities during their free time, so that they can perform better from an economic and social point of view. We wish to maintain a permanent state of good health and to individually attain this state of well-being.

Methods. In order for our scientific endeavour to be properly conducted, we used the following research methods and techniques: the method of the bibliographic study, where the data gathered offered us starting points for our research and allowed us to have a clear image of what has been accomplished so far. The direct and indirect observation method made us have a clear picture of the scientific truth as to how the students spend their free time. We also used: the quiz method as to how they would like to spend their time, the method for testing the biological and motric potential as well as the effects of the sports activities that students performed during their free time. All these activities were organised with the student during their free time, and were measured as follows: with anthropometric parameters, functional parameters and by motric potential.

Results. After organising our program we notice significant difference between the initial tests and the final ones for certain sports competitions.

Conclusions. As a result of the operational endeavour, we reached the conclusion that student are presented with a large offer for practicing systematically sports activities that are specific to this area and they improve their quality of life as they lose weight, develop harmoniously their bodies as to cope with the requirements of the day to day life and they increase their motric indicators at superior levels. More and more students spend their free time to a sanogenetic scope (in order to improve their health). We must initiate long term strategic programs of sports activities in order to prevent inactivity, obesity, stress, fatigue, different cardio-vascular diseases, lung and ostero-articular diseases.

Key words: free time, students, diversification, valorisation**.**

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Introduction

Our modern democratic society needs active people, willing to get involved in leading and organising responsibly their own act and the activities of the ones around them. Young people are used to organise their free time and this leads to the development of their capacity to alternate the learning and leisure activities. Due to the complexity of these activities, we work more than we rest, our free time is shorter and shorter and when we do have free time, we feel the need to get advantage of it, according to our interests. The use of free time differs from one society type to another, depending mainly on its degree of social development. Every single person manages her or his free time. We haven't been taught how to manage this time, to diversify the ways we can spend it, therefore television, the internet and sleep occupy it.

Sports, if we look at it broadly, namely: sports for everybody or sports for health, is a state politics in more developed countries, as the health of its citizens depends on it. Being healthy doesn't only mean not having any health problems, but it also means that this person, as entity, is able to enjoy life and surpass any problems or difficulties that appear throughout their life. The fact that physical education and sports, through movement can lead to maintaining an optimal health state, regardless to age, sex, personal development, political beliefs etc., is a tested fact that has to be accepted by everybody.

All these abilities that are especially promoted by physical education and sports are essential and are required regardless to the field of employment. The individual has to form a healthy life style, to spend his free time practicing a sport or activities that he prefers such as walks, excursions, hiking, he has to know his body and prevent unhealthy habits such as the lack of activity, stress, cigarettes, drugs, alcohol, improving thus his life level and the quality of his life Rodriguez who was quoted by Patac (2009), states that if we wish to improve our life quality, we have to have the good habit to always search improvement and not be content with what we have, trying to implement some changes, little by little; we will try to benefit from a correct diet, cleaner air, a some subtle, more exact and a calmer way of achieving things, in conclusion, we'll try to be interested in the quality of life, not in quantity.

The activities and sports competencies represent an important interest point in speeding pleasantly free time for the Oil and Gas students. Taking as starting point the famous dictum by Juvenal ″Mens sana in corpore sano″, that means having a healthy mind in a healthy body, we have to teach our children, students, even friends to practice physical exercises under different forms of manifestation, or to practice different team sports so that they can benefit from a healthy, improved life. We must start to spend our free time in a healthy and, at the same time, prolific way. (Constantinescu, 2009). People of different ages and professions have to spend their free time in a useful, recreational way by practicing physical exercises under different forms of organisation. The sports and physical training of the younger generation (especially that in schools and universities) must be especially stressed, as it is the premises of a superior activity of this type. The sports activities organised for students, apart from those organised during classes are the ones for the university athletics, football, handball, basketball, volleyball teams as well as sportive dance, fitness, aerobics and stretching practiced by these by choice. An important role have the sports competitions that have to be as many as possible, as it is humanly natural to enjoy competing with another person, be better than him. The students are keen on open air competitions, during their free time and they prefer football, handball and basketball, while the girls prefer stretching and aerobics gymnastics.

Purpose. We wish to give the chance to every student to independently develop his physical, intellectual and moral abilities during their free time, in order to better perform from an economic and social point of view. We wish to alternate the recreational activities to those of learning. As a hypothesis, we can state that if we use programs for practicing sports activities, according to the students' preferences, then these will replace the internet and television and we will have individuals that are able to search novelty.

Methods

In order to properly conduct our experimental endeavour we used the following research methods and techniques: the method of the bibliographic research, where the data was gathered and offered us an actual starting point in our research and allowed us to have a clear picture over what we had accomplished till that point. The method of direct and indirect observation allowed us to scientifically quantify the way young people truly spend their free time. The quiz method reflects their opinions about the way they wish to spend their free time. The method of testing their biological and motric potential as well as the effects of sports activities that youngsters performed in their free time, were evaluated using the following measurement categories: anthropometric parameters, functional parameters and motric potential. The motric potential was tested using competitions within a series of tests. In order to interpret and calculate the data obtained we used the statistical and mathematical method as well as the Anova unifactorial method.

The prorgam during their free time took place during university school year 2011-2012. The students of the five faculties in the Oil and Gas University took

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part in these tests, and these were chosen randomly. They are of ages between 19 and 24 years old, and there are 20 boys and 10 girls and were separated in there experimental groups, as follows: E_1 – football (10 boys), E_2 – handball (10 boys), E_3 – stretching and Pilates (10 girls). The program we established took place three times per week during the students' free time. They were compared to witness objects – M – of 10 students that take part in a classical way to the classes of physical education and sports, and have no other physical activity during their free time, instead they surf the internet and watch TV. The students were tested before the beginning of the program and after it finished.

Results

After applying the suggested program we noticed some significant differences between the initial results and the final:

Table no.1. Cardio frequency

Group	Code	Statistic Indicators – Final tests								
		Average	Median	Standard Deviation	Maximum	Minimum	Amplitude-de	C.v. (%)	Difference (m_E - m_M)	Cohen Indicator
Whiteness	M	72.25	72.50	5.70	86	62	24	7.89%		
Experiment	E_1	82.95	83.50	6.47	96	68	28	7.80%	10.70	0.90
	E_2	82.15	81.50	4.90	91	72	19	5.97%	9.90	0.96
	E_3	82.90	82.50	3.57	89	77	12	4.30%	10.65	1.15

Table 2 – Anova unifactorial Results – cardiac frequency

ANOVA UNIFACTORIAL RESULTS					
M - E_1		**M - E_2**		**M - E_3**	
F	P	F	P	F	P
30.796	< **0.05**	34.67	< **0.05**	50.14	< **0.05**

Table.3.Movement Speed – Sprint from a standing start for a distance of 50 meters

Group	Code	Statistic Indicators – Final Tests								
		Average	Median	Standard deviation	Maximum	Minimum	Amplitude-de	C.V. (%)	Difference (m_E - m_M)	Cohen Indicator
Witness	M	8.08	8.00	0.73	10	7	3	9.1%		
Experiment	E_1	8.28	8.35	0.97	10	6	4	11.7%	0.20	0.12
	E_2	7.91	8.00	0.66	9	7	3	8.3%	-0.18	0.13
	E_3	7.77	7.70	0.99	9	7	3	12.7%	-0.31	0.18

Table 4 – Anova Unifactorial results – Sprint for a distance of 50 meters

Results ANOVA UNIFACTORIAL					
M - E_1		**M - E_2**		**M - E_3**	
F	P	F	P	F	P
0.541	> **0.05**	0.63	> **0.05**	1.28	> **0.05**

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Table 5 – Statistic indicators– Final Testing – Cardio-respiratory Resistance Test

Group	Code	Statistical Indicators – Final Tests								
		Average	Median	Standard Deviation	Maximum	Minimum	Amplitude	C.v. (%)	Difference (m_E - m_M)	Cohen Indicator
Whiteness	M	6.10	5.92	1.38	8	4	4	22.6%		
	E_1	6.65	7.10	1.39	9	4	5	20.9%	0.55	0.20
Experiment	E_2	5.15	5.12	0.71	6	4	2	13.8%	-0.96	0.45
	E_3	6.45	6.63	1.22	8	5	3	18.9%	0.34	0.14

Table 6 – Anova unifactorial results –Cardio-respiratory Resistance Test

Results ANOVA UNIFACTORIAL

M - E_1		**M - E_2**		**M - E_3**	
F	P	F	P	F	P
1.552	> **0.05**	7.58	< **0.05**	0.70	> **0.05**

Table 7 – Statistic indicators– final tests- vital capacity Vital capacity

Group	Code	Statistical Indicators – Final Tests								
		Average	Median	Standard deviation	Maximum	Minimum	Amplitude	C.V. (%)	Difference (m_E - m_M)	Cohen Indicator
Whiteness	M	3413	3200	640	4400	2300	2100	18.76%		
	E_1	3705	3475	850	5400	2600	2800	22.95%	292.50	0.20
Experiment	E_2	3650	3550	582	5200	2600	2600	15.94%	237.50	0.20
	E_3	4665	4650	821	5850	3300	2550	17.61%	1252.50	0.87

Table 8 – Anova unifactorial results – vital capacity

ANOVA UNIFACTORIAL Results

M - E_1		**M - E_2**		**M - E_3**	
F	P	F	P	F	P
1.510	> **0.05**	1.51	> **0.05**	28.93	< **0.05**

Table no.9. Naveta run Test

Group	Code	Statistic indicators – Final tests								
		Average	Median	Standard deviation	Maximum	Minimum	Amplitude	C.v. (%)	Difference (m_E - m_M)	Cohen Indicator
Whiteness	M	14.18	13.93	1.49	17	12	5	10.5%		
Experime	E_1	14.74	14.94	1.37	17	12	4	9.3%	0.56	0.20

nt	E_2	12.58	12.56	0.69	14	11	3	5.5%	-1.59	0.70
	E_3	13.40	13.18	1.00	15	12	3	7.4%	-0.78	0.32

Table 10 – Anova unifactorial results –Naveta run Test

ANOVA UNIFACTORIAL Results

M - E_1		**M - E_2**		**M - E_3**	
F	P	F	P	F	P
1.511	> **0.05**	18.88	< **0.05**	3.79	> **0.05**

Table 11. Flamingo static balance test

Statistic indicators – Final tests

Group	Code	Average	Median	Standard deviation	Maximum	Minimum	Amplitude	C.v. (%)	Difference (m_E - m_M)	Cohen Indicator
Whiteness	M	2.50	2.00	1.79	6	0	6	71.7%		
	E_1	4.30	4.00	1.98	8	0	8	46.0%	1.80	0.49
Experiment	E_2	0.95	1.00	0.89	2	0	2	93.4%	-1.55	0.56
	E_3	1.45	1.50	1.05	4	0	4	72.4%	-1.05	0.37

Table 12 – Anova unifactorial results – Flamingo static balance test

ANOVA UNIFACTORIAL Results

M - E_1		**M - E_2**		**M - E_3**	
F	P	F	P	F	P
9.107	< **0.05**	12.02	< **0.05**	5.11	< **0.05**

Discussions

In Table 1 and Table 2 in cardio frequency we note

- group E_1: medium 82.95, higher by 10.70 beats/min than the one of the witness group. Cohen indicator (0.90) shows a higher difference, if not a very high one between the average of groups E_1 and M. The difference reached the quota of statistical significance, $p < 0.05$.
- group E_2: medium 82.15, higher by 9.90 beats/min than the average of the witness group. Cohen indicator (0.96) indicates a high if not a very high difference between groups E_2 and M. The difference if statistically relevant, $p < 0.05$.
- group E_3: medium 82.90, higher by 10.65 beats/min than the average of the witness group. Cohen indicator (1.15) expresses a high if not very high difference between the average of the groups E_3 and M. The difference reached statistical significance, $p < 0.05$.

In Table 3 and 4 in Movement Speed – Sprint from a standing start for a distance of 50 meters remark

- group E_1: average 8.28, higher by 0.20 sec than the average of the witness group. Cohen indicator (0.12) shows a little towards medium difference between the average of groups E1 and M. The difference didn't reach the threshold of statistical significance, $p > 0.05$.
- group E_2: average 7.91, smaller by 0.18 sec than the witness group. Cohen indicator (0.13) indicates a small towards medium difference between the average of groups E_2 and M. The difference isn't significant from a statistic point of view, $p > 0.05$.
- group E_3: average 7.77, lower by 0.31 sec than the average of the witness group. Cohen indicator (0.18) expresses thus a high if not very high difference between the average of groups E_3 and M. The

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difference didn't reach the threshold of statistical significance, $p > 0.05$.

In Table 5 and 6 cardio-respiratory resistance remark

- group E_1: average 6.65, higher by 0.55 min than the average of the witness group. Cohen indicator (0.20) shows a small difference towards average between groups E_1 and M. The difference didn't reach the threshold of statistical significance, $p > 0.05$.
- group E_2: average 5.15, smaller by 0.96 min than the average of the witness group. Cohen indicator (0.45) shows high difference towards a very high one between the average of E_2 and M. The difference is statistically significant, $p < 0.05$.
- group E_3: average of 6.45, higher by 0.34 min than the average of the witness group. Cohen indicator (0.14) still shows a high towards very high difference between the average of E_3 and M. The difference didn't reach the threshold of statistical significance, $p > 0.05$.

In Table 7 and 8 vital capacity we note

- group E1: average 3705, up 292.50 cm3 arm. Cohen index (0.20) shows little difference between the average for middle and M. E1 group difference did not reach statistical significance, $p> 0.05$.
- group E2: average 3650, up 237.50 cm3 arm. Cohen index (0.20) indicates a difference between the average small to medium groups E2 and M. The difference is not statistically significant, $p> 0.05$.
- group E3: 4665 average higher than 1 252.50 cm3 arm. Cohen index (0.87) to express a very big difference between the means of the groups E3 and M. The difference reached statistical significance threshold of $p <0.05$.

In Table 9 and 10 Naveta run test remark

- group E1: mean 14.74, up 0.56 sec average arm. Cohen index (0.20) shows little difference between the average for middle and M. E1 group difference did not reach statistical significance, $p> 0.05$.
- group E2: mean 12.58, lower by 1.59 sec average arm. Cohen index (0.70) indicates a high to very large difference between the means of groups E2 and M. The difference is statistically significant, $p <0.05$.
- group E3: 13.40 average, lower by 0.78 sec average arm. Cohen index (0.32) expresses the middle of the sea, however, a difference between averages of groups E3 and M. The difference did not reach statistical significance, $p> 0.05$.

In Table 11 and 12 we note

- group E1: mean 4.30, 1.80 points higher than average arm. Cohen index (0.49) shows a very large difference between the averages for groups E1 and M. The difference reached statistical significance threshold of $p <0.05$.
- group E2: mean 0.95, lower by 1.55 points average arm. Cohen index (0.56) indicates a high to very large difference between the means of groups E2 and M. The difference is statistically significant, $p <0.05$.
- group E3: mean 1.45, 1.05 points lower than average arm. Cohen index (0.37) expresses the difference between the average medium to large groups E3 and M. The difference reached statistical significance threshold of $p <0.05$.

From measurements made, significant differences between the experimental groups and the control group to measure heart rate in normal physiological as components of the control group sports activities every two weeks.

The same can be observed by testing on samples Speed running distance of 50 meters and cardio-respiratory resistance testing.

After studies of Patac (2009) and Constantinescu, (2012), we observed significant improvements in young students should benefit from preferential programs which they can apply in their free time. Emphasis should be placed on maintaining and continuously improving health, body shaping by adopting rational activity programs and sporting life.

Same reported and observed new Clemson (2012) and Noakes (2009) In the study, pointing out that an increased level of exercise leads to improvements in muscular system, skeletal, cardio-respiratory and reduces the risk of disease.

Conclusions

As a result of the operational endeavour undergone we can reach the following conclusions: namely that if students are presented with sports programs that imply systematically practicing physical and sports activities during their free time, the quality of their life will improve by a smaller corporal weight, by a harmonious physical development and the increase in the level of motric qualities to superior indicators and a significant increase in their attention and memorisation capacity. More and more students use their free time to a gamogenetic purpose (to improve their health status).

The undergone programs and activities should have a permanent character and should take place at the gymnasium as well as in the open air throughout the year. According to the students' requests to spend as much time in a pleasant way in open air, practicing sports activities there is possible to promote a weekly timetable that brings indirect benefits to physical fitness.

Strategic programs must be initiated on a long term regarding the development of sport activities in order to prevent lack of activity, obesity, stress, different cardio-vascular, respiratory and ostero-articular diseases.

As to the way students spend their free time, we can state that oxygenation, diet and movement are synonymous to a state of good health, this being our main objective in physical education and sports, as well as the essential element in developing the quality of life.

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