

SPORT AND RECREATION ACTIVITIES AT THE “GOCE DELCEV” UNIVERSITY SHTIP, REPUBLIC OF MACEDONIA – DIFFERENCES IN STUDENTS OPINIONS FOR ITS REALIZATION IN DEPENDENCE ON CERTAIN CHARACTERISTICS

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Key words: gender differences, students opinion, questioner sport and recreation.

INTRODUCTION

Starting with the pre-school system of education, through the primary and secondary education, the sport at the universities presents a logical consequence in the educational system in the process of sport education of the youth. In this regard, physical education as a source of positive changes in the developmental characteristics, starting from the early childhood until the late adolescence, via the period of maturity and what denotes a process of a life-long learning have one main imperative - formation of *a physically educated person*. In other terms, the physically educated person translates as a person with adopted abilities of engagement in various and numerous physical activities which provide easier maintenance of good health and wellbeing throughout the entire life of the person. It is a person who engages in physical activities on regular basis because they are highly enjoyable and because of the pleasant feeling they bring, as well. This person also understands the values of the physical activity, as well as the gains derived from the active and healthy manner of life [8]. In this regard and in compliance with the presentation elaborated in the White document for Sport of the commission of the European Communities, “the values which have been gained through the sports contribute to the development of the knowledge, motivation, abilities and the readiness for personal achievements.

The time spent in the sporting activities in both the schools and the universities provides educational and health-related gains which need to be improved further more (European Communities 2007)[14]. This means that the sport and the physical education implemented within the educational system present a springboard for inclusion and practice of the sport and the physical activity during the entire life.

On the other hand, according to the reports of the World Health Organization, the physical inactivity has been identified as fourth in a line risk-factor for mortality in people, with a total of 6% mortality rate at the global scale, which is right after the high blood pressure (13%), the tobacco use (9%), and the high blood glucose (6%).

Approximately 3.2 million of people die each year as a result of physical inactivity. The physical inactivity is the key risk-factor for occurrence of cardiovascular diseases, cancer, and diabetes. The increased body weight and obesity, which are very often responsible for 5% of the mortality in people at the global scale, are frequently a result of the physical inactivity. The level of physical inactivity notes a continuous incensement in many countries with great implications over the overall health of the world-wide population. Globally, one out of three adult persons are insufficiently active [21].

The student population has been more and more often calculated within the group of physically inactive persons. The university transition brings about many developmental changes and stresses. The life of the students is being significantly transformed from and academic, social, emotional, and motoric aspect. Both the academic obligations and responsibilities are being increased; the lectures and the studying demand more efficient management of the time. In the field of the social life, the student find themselves in a new surrounding, they leave their home, the parents, and the old friends, make new contacts and friends. This often leads to insecurity and loss of the self-confidence. The students often complain on loneliness, nostalgia, conflicts and disorders in the communication with their peers, as well as an increased stress [19]. From the aspect of the motorics, many of the studies point out to the

decrease of the physical activity in the period of taking the university studies [3, 13, 15]. This decrease has been more stressed in the female population of students, compared to the male population of students, and is co-related with the previously held habits for movement [3, 13]. The initial period of commencing the studies and the decrease of the physical activity, in particular studies has been positioned in a positive relation to the increased volume of sedentary activities, such as watching television or working on a computer, but also related with the use of alcohol, tobacco, and drugs. The same variables have been in co-relation with the attitude towards the Physical Education subject, the teacher, and his/her attitude toward the students [13].

The results from these and many other studies, as well as the data from the WHO, point out the period of adolescence (15-19 years) and the period of young adults (20-25 years) as critical one in which there is remarkable drop of the physical activity and engagement with sports. This realistic condition is opposite to the developmental postulates according to which the student population, which has been a subject of interest to this paper, in compliance with the developmental characteristics and tendencies, and ontogenetically it is located at the top of its physical, motoric, functional, and psychological development [9, 10]. In the literature, the period of late adolescence (after 17th year) and the period of young adults (20-25 years) is the so-called period of higher performances and perfections of the skills [6], i.e. it presents a period of full motoric efficiency [7]. In this period, all of the developmental processes have been completed, the functions have been stabilized, and the maximum in the manifestation of all human potentials- both intellectual and physical - is being reached [10]. What is characteristic in the field of motorics is the harmony of movements and maximal motoric efficiency which lasts until the 21st year for females, i.e. 25 years for males. The motoric abilities, such as strength, speed, coordination, and the rest of the motoric abilities achieve their peak in this particular period, provided the trainings have been conducted on regular basis. As aforementioned, the lifestyles, nutrition, as well as the engagement in a particular bodily exercise condition the changes in the motorics, as well as the movements in this given period.

In order to continue the trend of regular physical activity within the realm of the institutional educational system with a main goal to stop the tendency of interruption of the physical activity typical for the period of the beginning and duration of studies, while in compliance with the Bologna Declaration and the Credit-transfer system of education and the new curricula and programs of the faculties at the Goce Delchev University in Shtip, Republic of Macedonia, starting from the school year 2010/2011 the subject Sport and Recreation has been introduced as an obligatory subject for the students of the first year of university education.

The Sport and recreation subject is represented with 0+0+2 classes planned with the curriculum. In other words, the students have only practical exercises. The subject is obligatory for the regular students in the first year of university education; it does not obtain credits nor is being assessed with a mark and a final exam. The introduction of this subject is required aspect seen through the students' needs for physical activity. The basic aim of the Sport and Recreation curriculum is fulfillment of the basic student's needs for movement and physical activity, in compliance with their own personal abilities, needs, and affinities (Plan and program of the Sport and Recreation subject). Exposed in this manner, the general goal is being based upon the realistic needs of the students. Hence, the Sport and Recreation education has a task to enable the student to fulfill their needs for movement via planned and dosed physical activity in order to be able to conduct certain transformational changes. In this way, conditions for continuation with the sporting activity are being created, as well as improvement and maintenance of the motoric abilities and the physical readiness at a satisfactory level in every segments of the anthropological status of the human, encouragement of a healthy and active life, formation of healthy lifestyle habits, as well as prevention of illnesses related to the physical inactivity and a sedentary way of life, which is typical for the student population.

For the purposes of the conception of this study, we started from the acknowledgements of the studies which have been conducted so far regarding the differences between the male and female students in relation to the degree of participation in a physical activity, the choice of sporting contents, as well as the lifestyle habits of the students. Subject to this study are the students of the first year from thirteen

faculties at the Goce Delchev University in Shtip, republic of Macedonia. The research aims to determine whether there are still differences in the attitude between the students of opposite gender in relation to the place, manner of realization, and organization of the Sport and recreation subject, furthermore its representation in the curriculum, the offer regarding the content, etc. Based upon the defined aim, the following basic hypothesis has been set: X – there are differences between the attitudes of the students from male and female gender regarding the place of the university sport as an obligatory educational subject (its justification for being introduced in the curriculum as a subject, the manner and conditions for its organization, the selection of contents, the current program, the preferred contents, as well as the assumed effects of this type of education).

METHODS

The research has been realized with a total number of 670 respondents, full - time students of the thirteen faculties at the Goce Delchev University in Shtip (Faculty of Educational Sciences, Faculty of Medical Sciences, Faculty of Philology, Academy of Music, Faculty of Law, Faculty of Agriculture, Faculty of Informatics, Faculty of Natural and Technical Sciences, Faculty of Economics, Faculty of Tourism and Business Logistics, Faculty of Technology, Faculty of Electrical Engineering, Faculty of Mechanical Engineering) who regularly attend Sport and Recreation classes during the winter and summer semester in the school year 2013/2014. From the total number of students included in the research, 41% (275 students) are male, while 59% (395 students) are female. The research has been conducted anonymously and it was realized in the last teaching week (December, 2013 and May 2014, respectively), depending from the attendant semester. Opinions from both male and female students were determined using questionnaire designed especially for these cause. Beside the general questions (gender, age, and university) the questionnaire was conducted from 11 questions or 7 three-item questions, i.e. with three choices, two four-item questions of which one (the seventh one) is comprised of five sub questions and two questions which give ten optional answers. The questionnaire used in this research is modified and adopted version of questionnaire used in similar research realized by Šeparović & Užičanin [18]. The obtained results have been processed with frequencies (f) and percents (%). The significance of the differences of the attitudes among the respondents regarding the gender has been tested by an application of the Bartlett's χ^2 test. The gained results are also presented graphically.

RESULTS:

From the total number of examined students, 41% are male, while 59% are female students (Graph 1). From a total number of 670 respondents, 375 are aged 19, 124 are 18 year old, while 102 are 20 year olds (Graph 2). The rest of 87 examined students are at the age of 20 years and above. First question reveals students attitude for support or dissupport for the idea of introducing Sport and recreation as obligatory university subject. According the results, 74.55% male and 66.33% female students have a complete support for sport and recreation, 17.10% male and 21.77% female students partially support the idea, while an insignificant number of respondents (8% male and 12% female students) do not approve the introduction of Sport and Recreation as an obligatory university subject. The received values for the chi square test $\chi^2 = 5, 28$, $df = 2$ $< p 0, 05 = 5,991$ и $< p 0, 01 = 9,210$ show that the gained differences between the respondents are statistically significant at the level of $p = 0.05$ и $p = 0.01$.

Upon the second question "What does the Sport and Recreation subject mean to you?" analyzes of obtained points out that for nearly half of the male students (51.6%) it presents an humans` everyday need, while for 32% of them it presents a good opportunity for recreation. The selection of female students for these two categories is approximately same, i.e. for 41.5% it presents a humans` everyday need, while for 43.5% an opportunity for recreation. Only a small number of respondents (10.9% male and 8.9% female students) anticipate Sport and recreation from an academic point of view, i.e. as a constitutional part of the educational process. An additional obligation is the response of 5.5% male and 6.1% female students. In compliance with the gained values for the chi – square test, $\chi^2 = 9, 91$, $df = 3$, $< p 0, 05 = 7,815$ and $> p 0, 01 = 13,277$, the obtained differences between the two groups of respondents are found to be irrelevant.

As expected, the greatest differences between the genders appear upon the question of the offered and preferred contents. Regarding the selection of sport of a choice offered in the current program, the largest number of the male students, i.e. 40%, have chosen basketball, significantly smaller number prefer table tennis and general physical preparation 13.5%. The female students have different interests. Namely, they have displayed equal interest in basketball (22.3%), volleyball (21.3%), and aerobics (21%). The least preferred activities for the both groups are the elementary games (0.7% males and 1% females), folk and modern dances (2.5% males and 2.3% females), as well as badminton (1.1% males and 3.3% females). One of the most liked content for the males is the aerobics, chosen by only 2 out of total of 275 respondents of male gender (0.7%), and martial arts chosen by only 8 out of total of 395 respondents of female gender (2%).

From the list of ten sports activities which could be included in the Sport and Recreation curriculum, male students shown the greatest interest for football (42.5%), while the majority of female students prefer fitness (28%). Next on the list of selection for the male students is swimming (15%) as well as the tennis (14.5%). On the other hand, the female students have broader sports interests and almost equal number of them prefer swimming (13.4%), tennis (13.7), hiking (12.7%), and rollerblading (10.1%). The male students show the least interest in gymnastics (1.8%) and athletics (2.05%), while a very small number of female students are interested in skiing and football (2.3%).

Differences between the male and female students were also determined regarding the questions related to the status of the Sport and Recreation as a teaching subject, its representation by years, weekly number of classes, as well as the possibility of having theory classes. The current number of classes for Sport and Recreation is once per week in duration of 60 minutes, and it is being supported by 38.5% of the male students and 52.4% of the female students. The number of 2 x 45 minutes classes is being supported by 35.3% males and 37.5% female respondents, while the number if 2 classes per week in duration of 60 minutes has been approved by 26.2% males and 10.1% female students. The gained differences, According the values for chi – square test, $\chi^2 = 32,76$ for $df = 2$ on level $> p 0,05 = 5,991 > p 0,01 = 9,210$ differences between male and female students are obtained referred to gender are statistically important at both of the levels of significance. Numerically (and statistically significant differences between the respondents of different gender $\chi^2 = 43,66$ for $df = 2 > p 0,05 = 5,991$ и $> p 0,01 = 9,21$ are also obtained have been also determined upon the question for the realization of Sport and recreation classes in relation to the years of studies. The male students think that Sport and Recreation needs to be represented in all years of studies (54.2%). This is also the opinion of 28.90% of the female students, while almost half of them (49.10%) approve the current representation only in the first year of studies. This attitude has been accepted by 30.9% of the male students.

Numerically very similar, yet statistically significant results have been obtained upon the questions for placement of the subject Sport and Recreation on the list of facultative (selective) subjects and the need of theoretic lectures within the current number of classes or as an additional number. The majority of the surveyed respondents (62.2% m and 60% f) think that Sport and Recreation should be placed on the list of facultative subjects, while 18% of male and an equal number of the female students do not support this attitude. Regarding the question for additional theoretic lectures, 24.2% males and 25% females have stated a positive opinion for their realization as an additional number of classes in the curriculum, while realization of theoretical lectures in the range of existing number of classes is approved by 40% males and 48.10% of the female respondents. According 35.6% male and 26.9% female students, there is no need of additional theory classes.

Student's opinions about the influence of realization of Sport and Recreation contents over the quality of life, i.e. the physical performances and the mental health, have been determined within the five categories of the seventh question. They regard the influence of Sport and recreation curriculum over the lessening of the psychological fatigue and stress, the incensement of the positive emotions and concentration, as well as improvement of the physical strength and condition. The results for each of the aforementioned sub categories have been displayed in the Graphs 9, 10, 11, 12, 13, and 14. According students opinions, participation in Sport and Recreation activities helps in the process of improvement

of physical strength (53.2%), lessens the stress (56.4%) and the psychological fatigue (56.4%). According to the opinions of female students' this type of teaching activities helps in lessening of the stress (60.5%) and the psychological fatigue (63.5%), improvement of concentration (61.5%), as well as the positive mood (53%). For 49.5% of the surveyed female students, the realization of the Sport and Recreation exercises aids immensely the incensement of the physical strength and condition, while 45.3% think that it helps in direction of improvement of the physical performances. The values of the χ^2 test on both levels of significance applied from all five sub questions are statistically significant.

The last two questions relate to the technical side of the organization of Sport and Recreation teaching process, in particular to the concordance of the existing time table and the conditions in which the curriculum is being conducted. Out of the total number of respondents, a sum of 54% of all faculties find that the time-charting for the Sport and Recreation is suitable to their timetables, while 15% do not find it suitable. Compared by gender, 61.8% m and 49.4% f completely agree with the suggested time table, 24.7% m and 35.4% f think that the time table needs a better concordance, while the given time table is not suitable at all for 13.5% m and 15.2% f respondents. Regarding the facilities and other material conditions for realization of Sport and Recreation teaching process, 57.8% m and 45% f are found to be completely satisfied of them, 33.5% male and 41.8 female students are partially satisfied with the conditions, while 8.7% m and 12.2% female respondents are dissatisfied with the given conditions. The values of chi - square test upon this question $\chi^2=33,14$ $df = 2 > p 0,05 = 5,991 > p 0,01 = 9,210$ display the fact that the numerical differences obtained between the two groups of surveyed respondents have been statistically significant while tested on both of the levels of significance 0.05 and 0.01.

DISCUSSION AND CONCLUSION

The analysis of the answers obtained from a total number of 670 respondents and the comparison of the differences between the two groups of students via analysis of the values on the χ^2 test, leads toward the conclusion that the students of a different gender have different opinions regarding the placement, manner of realization and organization of the Sport and Recreation, as well as its realization expressed in number of weekly classes, etc. The relatively small number of students (8% m and 12% f) do not approve the idea for introduction of Sport and recreation as an obligatory subject during the first year of studies, opposed to the high percent of students of both genders who completely support this idea (74.55% of the male and 66.33% of the female students). These numbers and based on them, the results from analysis, justifies the decision for implementation of Sport and recreation as a university subject. The gained results are found to be very similar to the results of obtained in the research conducted for the opinions of their colleagues which have been surveyed in 2010/2011 Stojanova, Popeska, Mitevaska-Petrusheva in 2011 [16] and point out to the formed consciousness of the students about the physical activity as a part of the lifestyle. From an aspect of gender differences, a stronger affirmative attitude has been noted within the group of male students, compared to the group of female students, which has been partially expected. Similar results have been obtained in other conducted researches, also [12].

The initial motives for implementation of sport at the universities as an obligatory subject of studies have been directed toward creation of conditions for continuous sports activities, improvement and maintenance of the motoric abilities, as well as keeping the physical condition at a satisfactory level which would be adequate for each individual respectively, encouragement for active an healthy lifestyle, as well as a role in creation of the menu. These have been recognized on behalf of the students, which has been confirmed by their answers on the second question according to which for 51.6% male and 41.5% female students it presents an everyday need of a person, while for 32% male and 43.5% female students it presents a possibility for a recreation. For a very small number of the students see this educational activity from an academic point of view, i.e. as a constitutional part of the educational process. The obtained results refer to the formed consciousness of the students about the significance of the physical activity as way of life. .

Students' affinities toward a particular sport are significant for their involvement in the realization of the curriculum. Hence, the questions given in the questionnaire refer to the preferred contents. From the current program, male students mostly prefer basketball (40%), significantly smaller number prefer table tennis (16%), and general physical preparation (13.5%). As expected, the female students had different choice compared to the one of their male colleagues, i.e. they selected basketball in 22.3%, volleyball (21.3%), and aerobics (21%). These choices of the students and the differences regarding the gender have been also confirmed in many other researches [4, 11, 12, 16, and 18]. The selection of contents shows that the students are interested in activities which, above all, have a competing spirit or are directed toward improvement of the motoric performances and functional abilities. The students have been less interested for the elementary games and the folk and modern dances, which can be explained by the lesser intensity these activities have, as well as the perception of the dances as a dancing category which has little influence of the improvement of the motoric efficiency. This, again, in compliance with the opinions of the respondents, is one of the basic motifs for realization of this curriculum. The badminton as a content from Sport and Recreation is relatively unfamiliar sport, because it is not part of the PE programs in the elementary schools, i.e. sport and sporting activities curriculum in the high school. Additionally, the realization of the aforementioned contents, most often as additional forms to the class and their small time representation are probably one of the many possible reasons for the little interest they have among the students. The students' answers for the preferred contents which are not part of the current program are of special significance, because they point to the contents which can enrich the program, as well as the possibility to set a differential program for the male and female students respectively, in accordance with their affinities. In this regard, there is no doubt whatsoever that the programs should be enriched with football (42.5%) for the male students, and fitness (28%) for the female students. Beside this, the material conditions for realization of the swimming and tennis must be met, as well as for the mountaineering tours as particularly attractive recreational activity for the students.

The answers given to the questions regarding the status of the subject Sport and Recreation, its representations per study years, the weekly number of classes, as well as the possibility for theory lectures point out on different opinions between the male and female students. The obtained results point out that the male respondents have interest in quantitatively bigger representation of the university sport regarding its realization with 2 x 60 minutes per week, and a realization in all the years of studies (54.2%). In comparison, 54.2% of the surveyed respondents think that the current representation of the subject with a weekly number of classes 1 x 60 minutes is enough and that it should be introduced only in the first year of studies (49.1%). The introduction of theory classes within the existing number of classes (40% m and 48.10% f), as well as the possibility of being set on the list of facultative university subject's (62.2% m and 60% f) are directions open for possible changes in the subjects placement. Students opinions obtained in this research are also confirmed in other similar surveys [1, 12] Sport as a facultative university subject in each year of studies, accompanied by an analogous number of theory lectures and a weekly number of two classes, participating in a sport selected according students' affinities, stimulated by a particular number of credits according to the ECTS would denote a solid basis for a continuous influence over the students, regarding the adoption of habits for an active and healthy life, as well as regular physical activity. Thus, greater benefits from the physical training would have been achieved, along with the intensification of this type of education, the possibility for a differentiated program, and the participation of the students according to their affinities.

The summarized results from the students' answers upon the question of the influence of the contents in Sport and Recreation curriculum upon the quality of life, i.e. the physical performances and the mental health denote a firm and positive attitude regarding the benefits from the regular physical activity. The differences between the male and female students have been noted in relation with the selection of the categories which aid the improvement of the physical condition, concentration, the positive disposition, lessening of the stress and the psychological fatigue. If the selections of both student groups are summarized, the most frequently chosen answer to the question upon the influence of the physical

activity would be 'helps' and 'helps immensely', which derive a value ranging from 88% to 94%. This leads us to the conclusion that the students have sufficiently enough acknowledgements, as well as an exceptionally positive attitude toward the influence of the physical activity and its health benefits.

The last two questions refer to the technical side of the organization of the subject Sport and recreation as a university subject, in particular to the concordance of the existing timetable with the other lectures, as well as the conditions in which the education is being conducted (space, number of students per group, paraphernalia). These time-schedules are completely suitable for more than half of the surveyed respondents, while 13.5% male and 15.2% female students find them inconvenient. Compared by a faculty, the biggest discrepancy is found between the faculty of Philology and the Faculty of Informatics. The large numbers of student groups, the large number of students which commute on a daily basis and the overbooked timetables with lectures from the parent-faculty are probable reasons for this situation.

Differences between the male and female students are also determined toward the question for the facilities for realization of Sport and recreation activities. Having in mind that the Sport and Recreation teaching process is being conducted in 13 cities, in well-equipped gyms and groups limited up to maximum 35 students, the students' answers come as expected regarding this particular question. Generally, larger percent of the students are completely satisfied with the given conditions (57.8% males and 45% females), although the male respondents have displayed greater contentment in comparison to the female respondents. Compared by faculty, the greatest dissatisfaction by the conditions for realization of the curriculum has been displayed by the students of the Faculty of Technology and Faculty of Electrical Engineering (25.2%) and the faculty of Agriculture (16.2%). The expressed dissatisfaction is a result of the inability to practice football in the gym. This comes as a self-imposed explanation by the students, given in the greatest part of the questioner.

The obtained answers and the summarized results from the gained values from the applied χ^2 test are in direction of confirmation of the set hypothesis, i.e. there are differences between the opinions of the male and female students regarding the placement of the university sport as an obligatory educational subject (justification for introduction of the Sport and Recreation subject, its implementation, the manners and conditions of its organization and realization, the selection of contents, the current program and the preferred contents). On the other hand, the obtained results give us the directions for further organization of different sports at the university, in compliance with the students' opinions. This, in particular, denotes that the students recognize the need for sport and physical activity during the course of their studies, as well as the significance the sport has upon the quality of their lives. In this direction, they support the idea of implementation of the sport as an obligatory subject in the first year of studies, with a possibility for an additional implementation of the sport as a facultative university subject in the rest years of studies.

Regarding the contents, the interests of the students are directed toward the introduction of the football as content preferred by the majority of the male respondents, and the fitness with the aerobics as content preferred by their female colleagues, respectively. The introduction of these contents, as well as the introduction of tennis, swimming, and mountaineering as a mutual choice of the students from both genders, the realization of the university sport in each year with two classes per week, as well as the introduction of credits for regulation of the students' obligations, would allow students' participation in the sporting activities in compliance with their affinities. This, on the other hand, would increase the motivation for participation in the selected sporting content and thus guarantees greater efficiency and health benefits, as well. These changes stress the role of the university in the creation of complete individuals via creation of conditions for obtaining habits for a healthy, active, and quality life through an offer of various sporting programs, as well as provision of suitable and convenient spatial and material conditions and possibilities for each student to be able to engage in a physical activity and sport to the degree and form convenient for the student.

Thus, the Universities impose themselves as a logical link in the system of a continuous physical education as a strategy which would aid the physical education to perform its role in the magnification of the

physical activity level, as well as for a promotion of the health through obtaining habits for a healthy and active lifestyle [10].

REFERENCES

1. Andrijašević, M., Ciliga, D. & Jurakič, D. Is Sports Recreation Important to University Students? *Collegium Antropologium* 33(2009)1:163- 168.
2. Andrijašević, M., Paušić, J., Bavčević, T. & Ciliga, D. Participation in leisure activities and self-perception of health in the students of the University of Split. *Kinesiology* 37(2005) 1:21-31
3. Buckworth, J., Nigg, C. Physical Activity, Exercise, and Sedentary Behavior in College Students, *Journal Of American College Health*, Vol. 53, No. 1, 28 – 34
4. Gontarev, S., Sazdovski, C., Novacevska, S., Kalac, R. Fizickata aktivnost i interesite na studentite od Univerzitetot “ SvKiril i Metodij” in Skopje [In Serbian: Physical activity of students from the University Chiril and Methodius - Skopje] *Science & Sport*, 1 (2009) 145- 150.
5. Gošnik, J., Špehar, N & Fučkar Reichel, K. Perspektiva kolegija tjelesna i zdravstvena kultura na visokim Učilištima - bodovanje predmeta u ECTS-u. 17 Ljetna Škola Kineziologa Republike Hrvatske, [In Croatian: The future of subject physical and health culture at high schools – obtaining ECTS], 17 Summer school of kineziologist] pg. 278 – 283
6. Jovanovski, J. *Anthropomotrics*, Faculty of Physical education, Maering: Skopje (2013)
7. Kukulj, M. *Anthropomotortics*. Beograd: Faculty of Sport and Physical education (2006)
8. Hartman, K. Physical education, movement and physical literacy in the 21 century: pupils` competences, attitude and behaviours, In *Proceeding book from 6 th European FIEP Congress, Physical education in the 21st century-pupils competences* (2011).
9. Haywood, K., Getchell, N. *Life span motor development*. Champaign: IL. Human Kinetics. 2004
10. Malina, R., Bouchard, C., Bar – Or, O. (2004). *Growth, Maturation and Physical Activity* (second edition). Champaign: IL. Human Kinetics.
11. Markuš, D., Andrijašević, D., Prskalo I. Tjelesna aktivnost maturanata. *Odgojne znanosti*, [In Serbian: Physical activity of senior high schools] Vol. 10, br. 2, (2008) 349-367
12. Ničin, Dj., Lolič, V. Istrazivanja studentskog sporta I njegove perspektive. *Zbornik naucnih I strucnih radova “Sport i Zdravlje” Tuzla*, 55 – 61. *Medjunarodni simpozijum II* [In Serbian: Researches of students sport and it`s perspectives. *Proceeding book “Sport & Health”*](2009)
13. Nuviala, A, Gómez- López, M, , Pérez Turpin, J., Nuviala, R. Lifestyle and Physical Education, *Journal of Human Kinetics* Vol. 27/2011, 147-160
14. Petry, K., Froberg, K., Madella, A & Tokarski, W. *Higher Education in Sport in Europe. From Labour Market Demand to Training Supply*. Meyer & Meyer Sport (Uk), 2008.
15. Stone EJ, McKenzie TL, Welk GJ, Booth M. Effects of physical activity interventions in youth: review and synthesis. *Am J Prev Med*. 1998;15:298–315
16. Stojanova, B., Popeska, B., Mitevska – Petruseva, K. Differences among (between) male and female students at the University “Goce Delcev” in Stip, about their opinions for teaching subject sport and recreation. In *The VI International Balkan Congress for Education and Science: the modern society and education*. *Proceeding book*. Ohrid, 29. IX - 1. X 2011.)
17. Tappe. M., Cburgeson, C. Physical Education: A Cornerstone for Physically Active Lifestyles. *Physically Active Lifestyles* 281 *JOURNAL OF TEACHING IN PHYSICAL EDUCATION*, 2004, 23, 281-299
18. Šeparović, V., Užičanin, E. Stavovi studentata Univerziteta u Tuzli o izornoj nastavi na predmetima koje fakultet za tjelesni odgoj i sport ima na općoj univerzitetskoj listi izbornih predmeta. *Zbornik naucnih i strucnih radova “Sport i Zdravlje” Tuzla*, [Students attitudes from University in Tuzla for selective subject which is organized by the Faculty of spor and it1s placed at the list of selected curriculim] 112 - 119. II *Medjunarodni simpozijum*. (2009)
19. Colleen, S., Conley, C., Travers, L., Bryant, B. Promoting Psychosocial Adjustment and Stress Management in First-Year College Students: The Benefits of Engagement in a
20. World Health Organization (2004) *Global recommendations on physical activity for health*. Retrived July 30, 2014 from: www.who.int.
21. World Health Organization (2004) *Global strategy on diet, physical activity and health*. Fifty – seven world assembly, WHA57.17. Agenda item 12.6. Retrived, July 30, 2014 from www.who.int.