

DEVELOPMENT ATTITUDE CHARACTERISTICS ABOUT LEISURE TIME OF GRAMMAR SCHOOL FEMALE STUDENTS

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Abstract

The research was conducted on the sample of 647 female students in Grammar school described with 25 indicators of leisure in fitness. Data were prepared according to factor model for latent dimensionality determination, and SDA discriminative analysis was applied on 4 age rates in high school for development validity determination. Methodological, the research belongs to explorative procedure, and the aim is to determine validity of system value formation. The results indicate there are three processes that occur parallel in one part of examinees: a) constructive cognition process, b) destructive inactivity process and c) oscillatory process of multiple activation attempts. Such information are directly applicable for the purpose of planning, programming and conducting fitness in daily practice because they give answers to basic cause questions which form common values and certainly values regarding leisure time.

Key words: leisure time, development, high school girls

Introduction

Many leisure time definitions can be found in existing literature, all but ones that claim there is no leisure time. However, the closest to the actual conditions is cognition that leisure time is the time of totally available time in one man's life that he doesn't sense as an obligation and dedicates to it by his free choice. That is the space in daily (weekly, annual...) schedule of individual when the one is primarily spared from work and other obligations that came out of parental, children, brothers, association and other social relations. (Bilić & Bonacin, 2007). However, leisure time is always a concept of a special interest and not only to discover its nature in different causes and populations, but to find adequate solutions so possible issues in leisure time could be corrected and eliminated. Such actions require familiarizing with leisure time that can be recognized in some acceptable way. That is possible through large diapason of means, but for start the simplest is to ask individuals how they see that leisure time in their personal example. This becomes interesting when we talk about female samples. That is because such research is a lot less conducted than with male samples and it is the case with age rates, because social-kinesiology research are usually located into samples that have stabile sociometric and other position, which means adults. (Petrović & Hošek, 1986). Although, in such way we are deprived from valuable information that testify about development of future citizen abilities, as well as of actual supposition of development age that will become „grown - ups“ in upcoming years (Bonacin, Da., 2009). As it is known, some ages doesn't have to have acceptable and wanted attitude and opinion for us. Some of this age samples are high school boys and girls, since that is the age when many changes occur because of growing up and some of this changes have their

repercussions into sociological life sphere that can not and shouldn't be ignored. Finally, in that age we can recognise how succesfull in some areas were our efforts to support formation of quality value systems in previous educational intervals. Certainly, rough development in age of 15 to 19, when the girl tends to form permanent values according to many sociological values, leisure time as well, but that development is not simple in this age period. (Bilić, 2009).

Problem and aim

Problem of this research is therefore set of social system elements towards leisure time in the way how treated entities experience it. The subject of this research are girls from 15 to 19 years of age, in other words high school girls from Grammar school, their attitudes toward leisure time within the meaning of available resources, offered schedules, the way how they spend their resting time, cognitions and knowledge about organizing leisure time and the meaning of recreation during leisure time. The aim of this work is to identify development attributes in different age, apropos from first to fourth grade of Grammar school.

Methods

For this research we selected the sample of 647 Grammar school female students in Herzegovina, age 15 to 19. Totally there were 167 first grades, 158 second grade, 166 third grade and 156 fourth grade students. The examinees were described with 60 indicators of leisure time. The author of the survey was Danijela Bonacin (Bonacin, Da., 2009) These indicators were reduced to 25 indicators after normalization of multivariate procedure Iterim (Bonacin, 2007) and they all have maximal mutual variability.

Such prepared data of the total sample were subject to elementary statistic processing and standard factorization procedure with skew in oblique Orthoblique position (Bonacin, 2004) for obtaining basic information on latent dimensions which is structure of applied indicators. After that we performed ANOVA and SDA discriminative analysis (Bonacin, 2004) to obtain information on chronological differences according to sub-samples, apropos basically - development characteristics of Grammar school female students within chosen set of variables.

Results and discussion

Based on centroid groups it is obvious that the first discrimination function differentiate girls. The results of this research indicated there are evident differences in univariate area (ANOVA). Set of orthoblique factor total (table 1) describes 5 very clear latent dimensions: 1) *socially driven usage of leisure time* 2) *educationally driven usage of leisure time* 3) *work dependable usage of leisure time* 4) *personally driven usage of leisure time* and 5) *organized management of leisure time*. In such way we identified Grammar school female student leisure time indicators and potential recreational activation, between girls according to their age within defined set of variables (table 2). This variations are obvious through whole series of all 15 indicators. It seems that age has a large impact on formed opinions about leisure time.

It is so obvious that almost all minimal indicator values exactly in the first two grades of high school and the fourth grade has not even one minimal, but series of maximal values. In factor perspective, girls in fourth grade express the most their values in latent dimension of organized management of leisure time. The girls in first grade have the lowest values in three latent dimensions: social, educational and organizational management of leisure time. It seems that first grade girls have certain level of parental control and other system values from previous periods. In second grades, because of sociological changes and more independence that value fades away and is replaced with own attitudes and social exposition, but it is not adequately established.

This kind of situation is developed through third grades and in fourth grade we have newly formed cognitions that we can optimistically specify as positive. Development characteristics are easily recognized and describe social and comprehensive development meaning options and possibilities of leisure time management generally. Discriminative SDA analysis discovered three significant discrepancy functions between chronologically defined samples of girls with 51.67 %, 40.47 % i 7.86 % clarified total variations. Eigen values were 0.80, 0.63 i 0.12, and canonic correlation 0.90, 0.79 and 0.35, so the conclusion is there are three ways to differ the samples.

Table 1. Orthoblique position of leisure indicators and factor correlations of total sample

Varijable	OB1	OB2	OB3	OB4	OB5
For recreation we should use all nature resources according to	0.55	0.19	-0.08	0.14	0.17
It is necessary to make specific programs in coordination with society	0.87	-0.03	0.06	0.01	0.01
The society has to provide funds for recreation purposes during leisure time.	0.55	0.30	-0.09	0.11	-0.07
I am familiar with many various recreation activities	0.82	-0.05	0.14	0.08	0.01
Many that I know are involved in sports activities in leisure time	0.80	0.14	0.03	-0.02	-0.10
Educated people schedule their leisure time better	0.27	0.65	-0.01	0.13	0.00
Recreation in leisure time contributes to health	0.16	0.74	-0.03	0.01	0.04
There are better way than sports to fulfill your leisure time	-0.54	0.76	0.11	0.11	0.06
Individual programs should be created	0.01	0.72	0.08	-0.06	0.12
New courts, halls and other facilities should be built.	0.15	0.85	-0.11	-0.14	0.01
Who don't sleep well cannot perform their job well	-0.06	-0.09	0.88	-0.03	0.08
I sleep in my leisure time	0.25	0.02	0.85	-0.12	-0.02
I study just as much as its needed	0.09	-0.01	0.84	0.12	-0.14
I am capable of managing my leisure time	-0.47	0.14	0.51	0.10	0.29
Wellness is a great way of spending your leisure time	-0.22	0.03	0.29	0.10	0.50
More knowledge enables more leisure time	0.19	0.14	0.13	0.63	-0.06
I have great responsibilities and have no leisure time	0.07	-0.54	-0.14	0.87	0.25
I always find some free time for myself	-0.26	-0.18	0.09	0.87	-0.04
Resting means take some time and recover	0.31	0.34	0.16	0.36	-0.24
I have to exercise more in my leisure time	0.18	0.11	-0.19	0.62	0.09
I regularly have my physical and take advices on exercising	-0.05	0.16	-0.07	0.07	0.78
Body activity makes miracles for psychophysical recovery	-0.33	0.43	-0.17	0.19	0.47
I spend my holidays with my family and friends	-0.16	0.32	0.04	0.10	0.61
I participate and follow competitions	0.36	-0.35	0.18	-0.26	0.82
With my friends I play some indoor soccer, basket etc	0.36	-0.28	-0.19	-0.20	0.91
	OB1	OB2	OB3	OB4	OB5
	OB1	1	0.28	0.05	0.31
	OB2		1	0.03	0.34
	OB3			1	0.17
	OB4				1
					0.16

(OB1,2,3,4,5 = orthoblique skew factors position)

Table 2. Descriptive statistics (Min = 1, Max = 5)

Variables	CL1	CL2	CL3	CL4	TOT	SD	P
For recreation we should use all nature resources according to	3.78	3.59	3.74	3.94	3.76	0.98	0.02
It is necessary to make specific programs in coordination with society	3.30	2.98	3.28	3.50	3.26	1.10	0.00
The society has to provide funds for recreation purposes during leisure	3.57	3.58	3.80	3.89	3.71	0.91	0.00
I am familiar with many various recreation activities	3.30	3.13	3.27	3.39	3.27	0.96	0.10
Many that I know are involved in sports activities in leisure time	3.43	3.39	3.58	3.58	3.49	0.98	0.17
Educated people schedule their leisure time better	4.25	4.21	4.43	4.50	4.34	0.78	0.00
Recreation in leisure time contributes to health	4.37	4.26	4.60	4.55	4.45	0.72	0.00
There are better way than sports to fulfill your leisure time	3.95	4.16	4.27	4.17	4.14	0.85	0.01
Individual programs should be created	4.26	4.21	4.46	4.26	4.30	0.85	0.04
New courts, halls and other facilities should be built.	4.31	4.34	4.53	4.47	4.41	0.70	0.01
Who don't sleep well cannot perform their job well	3.05	2.72	2.59	2.66	2.76	1.31	0.01
I sleep in may leisure time	3.47	3.25	3.18	3.19	3.28	1.08	0.05
I study just as much as its needed	2.23	2.17	2.05	2.20	2.16	1.17	0.51
I am capable of managing my leisure time	3.27	3.14	3.22	3.25	3.22	1.15	0.76
Wellness is a great way of spending your leisure time	3.90	3.63	3.70	3.79	3.76	1.06	0.13
More knowledge enables more leisure time	3.93	3.89	3.98	4.00	3.95	1.00	0.76
I have great responsibilities and have no leisure time	3.34	3.18	2.88	3.26	3.16	1.32	0.01
I always find some free time for myself	3.47	3.56	3.38	3.59	3.50	1.20	0.39
Resting means take some time and recover	3.10	3.17	3.46	3.55	3.32	1.09	0.00
I have to exercise more in my leisure time	4.06	3.97	4.05	4.28	4.09	0.97	0.04
I regularly have my physical and take advices on exercising	3.90	3.65	3.75	3.80	3.78	1.06	0.18
Body activity makes miracles for psychophysical recovery	4.35	4.51	4.51	4.45	4.46	0.87	0.33
I spend my holidays with my family and friends	3.89	3.82	3.89	3.85	3.86	1.37	0.96
I participate and follow competitions	2.86	2.18	2.31	2.60	2.49	1.30	0.00
With my friends I play some indoor soccer, basket etc	3.20	2.69	2.87	3.05	2.96	1.18	0.00

(CL1,2,3,4 = means for each class, TOT= mean for total, SD = total standard deviations, P = probability of ANOVA)

Table 3. SDA discriminative functions of 4 girl groups (classes)

Variable	DF1	DF2	DF3	
For recreation we should use all nature resources according to	0.55	-0.35	-0.13	
It is necessary to make specific programs in coordination with society	0.47	-0.44	-0.22	
The society has to provide funds for recreation purposes during leisure	0.70	-0.06	-0.20	
I am familiar with many various recreation activities	0.41	-0.47	-0.20	
Many that I know are involved in sports activities in leisure time	0.55	-0.25	-0.13	
Educated people schedule their leisure time better	0.79	-0.04	0.05	
Recreation in leisure time contributes to health	0.78	0.04	0.27	
There are better way than sports to fulfill your leisure time	0.44	0.31	0.28	
Individual programs should be created	0.58	0.02	0.46	
New courts, halls and other facilities should be built.	0.79	0.18	0.33	
Who don't sleep well cannot perform their job well	-0.39	-0.57	0.14	
I sleep in may leisure time	-0.19	-0.59	0.11	
I study just as much as its needed	-0.17	-0.48	-0.10	
I am capable of managing my leisure time	-0.13	-0.21	0.24	
Wellness is a great way of spending your leisure time	-0.05	-0.40	0.25	
More knowledge enables more leisure time	0.45	-0.21	-0.33	
I have great responsibilities and have no leisure time	-0.01	-0.41	-0.62	
I always find some free time for myself	0.07	-0.10	-0.61	
Resting means take some time and recover	0.64	-0.05	-0.33	
I have to exercise more in my leisure time	0.54	-0.14	-0.42	
I regularly have my physical and take advices on exercising	0.30	-0.34	0.33	
Body activity makes miracles for psychophysical recovery	0.40	0.10	0.24	
I spend my holidays with my family and friends	0.34	-0.21	0.30	
I participate and follow competitions	-0.17	-0.81	0.37	
With my friends I play some indoor soccer, basket etc	0.06	-0.63	0.29	
	DF1	DF2	DF3	
	CL1	-0.10	-0.14	0.03
	CL2	-0.12	0.11	-0.03
	CL3	0.10	0.08	0.06
	CL4	0.12	-0.05	-0.05

(DF1,2,3 = discriminative functions, CL1,2,3,4 = centroids of school classes)

The first two are extremely important and the third one is less important. According to the level of education because extremely better values are found in girls in third and fourth grades. This is especially the case with social and educational fields but also in leisure time personally managed. On the contrary there is work dependable leisure time that describes girls in first two grades when probably their obligations increased regarding previous period.

First function explains **development cognitions about leisure time**, that increase regarding education duration. And here we have constructive process. Second discrimination function indicates that after first function there is still a large number of variations 40% that cannot be explained with education level, but in some other way. Centroids refer us to the difference between second, third and especially first grades and a little bit less between second and third and the fourth grades. It is obvious that the girls in the first grades feel a lot less conditioned lack of recreation leisure time, but they are involved in certain activities, and the girls in second and third grades show deviation in personal participation in physical activities of organized leisure time as well as general content knowledge. On a positive side (second and third grades) is minor number of indicators but they are aimed toward other activities and social community critics.

This is how this function explains phenomenon of **inactivity and abandon to passive forms** in leisure time and it certainly is generally destructive process. It is obvious that in second grade we have very specific set of actions that completely change girl's sociological texture, which can be connected to their age but not to becoming mature. It seems there is a change in one part of value system that doesn't have to be justified.

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Finally, third discrimination function indicates differences between first and third, from second and fourth grades in Grammar school and so points out very unusual character. Essentially it brings first graders and second graders into connection through organized and educationally driven leisure time management and on the other side social and personally managed leisure time that is specific for the second and fourth graders.

This kind of position of discriminative function obviously describes appearance of **multiple attempts of activation in leisure time** so it results as one oscillatory process. The results pointed that complexity of girls development is large and this problem can not be approached in a trivial way (Bilić i sur., 2009).

Conclusion

Leisure time as a basic assumption for personal activation of young high school girls in kinesiology recreation would be a basic subject of this research. The aim of the research would be determining validity of development attributes through four age categories of female students 15 to 19 years of age.

For this work purposes, 647 girls were described with 25 leisure time indicators and the data were processed by standard univariate (descriptive statistics, ANOVA) and multivariate (Ortholique factor rotation, SDA discriminative analysis) methods. The results crystallized into three processes that the girls go through a) development cognitions about leisure time b) inactivity and abandon to passive forms and c) multiple attempts of activation during leisure time. It is assumed that careful and more precise approach to high school girl's phenomena is needed, especially with forming of value system.

ZNAČAJKE RAZVOJNIH STAVOVA O SLOBODNOM VREMENU UČENICA GIMNAZIJA

Sažetak

Provedeno je istraživanje na 647 učenica gimnazije opisanih sa 25 indikatora slobodnog vremena u rekreaciji. Podaci su pripremljeni i obrađeni u skladu s faktorskim modelom radi utvrđivanja latentne dimenzionalnosti, a primjenjena je i SDA diskriminativna analiza po 4 uzrasta srednje škole radi utvrđivanja razvojnih zakonitosti. Metodološki, istraživanje pripada eksplorativnoj proceduri, a cilj je utvrđivanje zakonitosti formiranja sustava vrijednosti. Rezultati su pokazali da postoje tri procesa koji se odigravaju paralelno kod dijela ispitanica: a) konstruktivni spoznajni proces, b) destruktivni proces inaktiviteta, i c) oscilatorni proces višestrukih pokušaja aktivacije. Ovakve informacije direktno su primjenjive u svrhu planiranja, programiranja i provedbe rekreacijskih sadržaja u svakodnevnoj praksi jer daju odgovore na temeljna pitanja uzroka koji dovode do formiranja općih vrijednosti a svakako i vrijednosti vezane uz slobodno vrijeme.

Ključne riječi: slobodno vrijeme, razvoj, srednjoškolve

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