

Sports Students' Motivation for Participating in Table Tennis at the Faculty of Kinesiology in Zagreb

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Abstract: The purpose of this study was to find out the sports students' motives for participating in table tennis sport course at the Faculty of Kinesiology in Zagreb. The research aim was to provide findings for better planning of the programs. The subjects of this research were 138 students (114 males & 24 females), who took the course in table tennis at the University of Zagreb, Faculty of Kinesiology (KIF). The questionnaire used in this investigation to assess students' motivation consisted of 30 items. It was designed by Gill, Gross & Huddleston (1983) and is called "Participation Motivation Questionnaire". The PMQ was distributed to the subjects at the end of the semester. The data were analyzed by descriptive statistics, factor analysis and one way ANOVA. To analyse the motivational space the main component method was used and the number of factors was determined after Varimax rotation Method with Kaiser Normalization.

The top three motives for choosing table tennis were: "I Want to stay in a good shape;," "I love doing things I am good at;," and "I want to stay in good physical shape and healthy". It is interesting that females have the same top three motives as males and that the values are even higher than by males. For the sports students their intrinsic motivation is important and that's why at the bottom of the results scale there are assertions about extrinsic factors such as: "My parents and friends want me to compete", "I like to feel important" and "I want to be popular". The obtained results also indicate students' preference for a wider variety in table tennis, an increase in the challenge level in physical education classes and an increase in student motivation for participating in table tennis activities with higher demand of physical preparation.

Key words: table tennis, motivation, university sports students

1.0 INTRODUCTION

Table tennis enjoys quite large popularity among people in Croatia. First table tennis games took place in 1902, in the national library in Donji Miholjac. In 1939, Table tennis Federation was founded and after proclamation of independency of Republic Croatia, Croatian Table tennis Federation was founded in 1991 as one of the first sports organisations which nowadays count's almost one hundred clubs. Beside in clubs, table tennis is played in elementary and secondary schools, at the universities and in the dorms.

World famous Croatian table tennis players with remarkable international results are: Žarko Dolinar, Dragutin Šurbek, Antun Tova Stipančić, Branka Batinić, Tamara Boroš and Zoran Primorac.

Their successful sports careers have encouraged development of table tennis in Croatia [3]. Table tennis, in Croatia, is included in educational process in

elementary and secondary schools as well as at the faculties.

In the framework of physical and health education at the University of Zagreb, students can, among other sports, choose table tennis as their main sport.

University of Zagreb counts about 60.000 students from all over Croatia, which have various interests and knowledge in sport activities.

Specificity of Croatian universities, despite other European universities, is PE education, which is obligatory during first and second year of studying and has been introduced as electoral subject on senior years.

Contemporarily and attractiveness are significant characteristics of PE education, they tribute in educational sense and have general positive influence on the anthropological status of students.

It refers primarily to the imperative of preserving health and its improvement, as well as acquisition of

certain volume of motor information for rational and substantial usage of free time.

Analysis results of male and female student's interest confirm popularity of all racket sports, as tennis, table tennis, squash and badminton.

Faculty of Kinesiology in Zagreb is one of 33 faculties of the University of Zagreb.

Faculty's educational plan consists of, among others, obligatory and electoral courses, theoretical and workouts. Table tennis is electoral course and is offered to students since 2006. In frame of 30 hours of theory and workouts, students acquire knowledge of basic elements of table tennis game techniques and tactics, as well as methodical procedures in the process of acquisition of game elements.

In year 2006 electoral course TABLE TENNIS was elected by 69 students (winter and summer semester), in year 2007, 109 students, and in year 2008 there were 155 students.

Motivation processes are part of learning process in any human activity. According to Horga [2], the relationship between the motivational factors and the learning process is best reflected in the Hull-Spencer learning theory, expressed as the equation that the excitation potential, i.e. the desire to manifest knowledge equals the product of the motivating energy and the strength of knowledge.

Motivation has been the subject of research in many sports, but up to now, table tennis, as new sport at Faculty of Kinesiology, has not been in the focus of researchers.

The aim of this study was to identify students' motives for participating in table tennis sport course at the Faculty of Kinesiology in Zagreb. The purpose of this research was to provide findings for better planning of the programs.

2.0 METHODS

2.1. Subjects

The subjects of this research were 138 students (114 males & 24 females), aged 18 to 22 years, attending classes of Table tennis course at the University of Zagreb, Faculty of Kinesiology (KIF).

2.2. Variables

The Gill, Gross & Huddleston (in Horga, [2]) questionnaire, called "Participation Motivation Questionnaire", was used in this investigation. The PMQ was distributed to the subjects at the end of the semester. Thirty items quote following reasons to engage in table tennis with a distinct component:

1. Skills (SPOS)
2. Friends (PRIJ)
3. Winning (POBJ)
4. Energy (ENER)
5. Travel (PUT)
6. Fitness (FORMA)
7. Experience (DOZI)
8. Team work (GRUPR)
9. Parental wish (ZELA)
10. Ability (SPRET)
11. New friends (NOVIP)
12. Expression of personality (OSOB)
13. Relaxation (OPUS)
14. Awards (NAGR)
15. Good techniques (TEH)
16. Work (RAD)
17. Actions (AKC)
18. Socializing (DRUZ)
19. Out of home (KUCA)
20. Competitions (NATJ)
21. Important (VAZN)
22. Group (EKIP)
23. To be better (BOLJI)
24. Health (ZDRAV)
25. To be popular (POP)
26. Challenge (IZAZ)
27. Work of coach (TREN)
28. Awards (NAGR)
29. Fun (ZABA)
30. Sport Equipment (OPR)

The items were arranged in such a way that each participant marked his/her level of agreement or disagreement with each statement by numerical marks 1-5 (a five-grade scale of the Murphy-Likert type).

2.3. Methods

The basic statistical parameters of the variables were calculated. To analyse the motivational space the main component method was used and the number of factors was determined after Varimax rotation method with Kaiser Normalization.

3.0 RESULTS AND DISCUSSION

The analysis of response frequency to particular levels on the Likert scale, as well as the average results and standard deviations of the questionnaire items, led to conclusion that, among the motives for engaging in sports, the highest mean values were ascribed to all benefits which sport gives. It is interesting that females have the almost the same motives as males and that the values are even higher than by males. The top four motives (Table 1.) for choosing table tennis were: "I want to stay in good physical shape and healthy;" (V24. ZDRAV), "I want to keep myself in form;" (V6. FORMA) "I like to do what I am successful at;" (V12. OSOB), and "I Want to have a fun" (V29. ZABA).

Only in one variable, there is a significant difference between male and female students (V5. PUT). Namely, female students choose certain sport (table tennis), to realize their aspiration for travelling, while male students consider that variable less significant.

As it can be concluded out of results (Table 1), for the sports students their intrinsic motivation is important and that's why at the bottom of the results scale there are assertions about extrinsic factors such as: "My parents and friends wants me to compete", "I like to feel important" and "I want to be popular".

Results shown in the research can be presumably explained by the fact that the questionnaire was conducted in the selected group, among the kinesiology students, whose idea of sports benefit is very closely linked to their choice of any sport.

Table 1 Basic statistical characteristics and ANOVA

Var	Men			Woman			F	F-sig
	N	Mean	Std. Dev.	N	Mean	Std. Dev.		
V1.SPOS	114	4,49	,707	24	4,67	,565	1,300	,256
V2. PRIJ	114	4,24	,944	24	4,63	,576	3,754	,055
V3. POBJ	114	4,44	,729	24	4,42	,584	,019	,890
V4. ENER	114	4,30	,677	24	4,58	,654	3,552	,062
V5. PUT	114	3,96	1,080	24	4,63	,647	8,304	,005
V6. FORMA	114	4,69	,551	24	4,88	,338	2,422	,122
V7. DOZI	114	4,47	,641	24	4,75	,442	4,043	,046
V8. GRUPR	114	4,09	,847	24	4,38	,770	2,349	,128
V9. ZELJA	114	3,01	1,279	24	3,25	1,113	,735	,393
V10. SPRET	114	4,14	,986	24	4,33	,917	,778	,379
V11. NOVIP	114	4,31	,832	24	4,54	,779	1,610	,207
V12. OSOB	114	4,67	,527	24	4,83	,381	2,161	,144
V13. OPUS	113	4,04	,939	24	4,42	,717	3,351	,069
V14. NAGR	113	4,04	1,101	24	4,50	,834	3,799	,053
V15. TEH	114	4,55	,692	24	4,67	,702	,535	,466
V16. RAD	114	4,26	,753	24	4,63	,711	4,662	,033
V17. AKC	114	4,39	,748	24	4,67	,637	2,747	,100
V18. DRUZ	114	4,21	,936	24	4,63	,647	4,266	,041
V19. KUCA	114	4,28	,759	24	4,50	,722	1,684	,197
V20. NATJ	114	4,32	,720	24	4,33	,917	,011	,918
V21. VAZN	114	3,68	1,141	24	3,83	1,049	,390	,533
V22. EKIP	114	4,15	,895	24	4,17	,868	,008	,930
V23. BOLJI	114	4,41	,750	24	4,52	,593	,434	,511
V24. ZDRAV	114	4,76	,485	24	4,88	,338	1,154	,285
V25. POP	114	3,53	1,123	24	3,67	1,007	,320	,572
V26. IZAZ	114	4,43	,728	24	4,46	,721	,030	,862
V27. TREN	113	3,64	1,061	24	3,63	1,245	,002	,961
V28. NAGR	114	3,99	,907	24	4,17	,816	,766	,383
V29. ZABA	114	4,56	,610	24	4,79	,415	3,106	,080
V30. OPR	114	4,50	,707	24	4,71	,751	1,685	,196

Seven significant factors have been extracted, by using the Component Analysis of variance, which altogether explained 66% of the whole space being analyzed, (Table 2.)

After Varimax Rotation with Kaiser Normalization accomplishing all seven factors were named (Table 3)

Table 2 The final values of the factors and the percentage of the space variance explained

Var	Initial Eigenvalues		
	Total	% of Variance	Cumulative%
V1.SPOS	11,25	37,585	37,585
V2. PRIJ	1,921	6,402	43,987
V3. POBJ	1,524	5,079	49,065
V4. ENER	1,442	4,808	53,873
V5. PUT	1,281	4,268	58,142
V6. FORMA	1,258	4,195	62,336
V7. DOZI	1,162	3,874	66,211
V8. GRUPR	,941	3,137	69,384
V9. ZELJA	,900	2,999	72,347

V10. SPRET	,765	2,549	74,896
V11. NOVIP	,714	2,378	77,275
V12. OSOB	,650	2,165	79,440
V13. OPUS	,623	2,077	81,518
V14. NAGR	,590	1,965	83,483
V15. TEH	,560	1,867	85,349
V16. RAD	,524	1,747	87,096
V17. AKC	,491	1,638	88,734
V18. DRUZ	,471	1,569	90,303
V19. KUCA	,425	1,415	91,718
V20. NATJ	,343	1,145	92,863
V21. VAZN	,325	1,082	93,945
V22. EKIP	,307	1,024	94,969
V23. BOLJI	,271	,904	95,873
V24. ZDRAV	,240	,800	96,674
V25. POP	,221	,737	97,410
V26. IZAZ	,200	,667	98,078
V27. TREN	,177	,590	98,667
V28. NAGR	,171	,571	99,238
V29. ZABA	,129	,430	99,669
V30. OPR	,099	,331	100,000

The first factor exploits nearly one fourth of the total space variance explained (37.585%), based on which a conclusion can be made that most motives share a significant common space. The other six factors together exploit approximately the same variance as the first. All seven factors together exploit 66.2% of the total space variance.

Main projections of the statements offered in the questionnaire on the first factor are those related to popularity and importance that sportsmen achieve through sports, i.e. victory.

Therefore, that factor has been named POPULARITY. At first sight, we might be wondering at such high percentage of that variance, since statements related to health were ranked the highest, but obviously questions in the questionnaire were not evenly represented, namely, there was more questions related to success, competition and popularity, but those relating to health, and good physical condition. Such a lowered variability diminishes correlation between variables, which is a consequence of first factor variance quantity extraction.

The second factor is defined by the motives related to the usual moment that the sportsman experiences through the sports he/she is engaged in. This encompasses the motives such as: I like company, and meeting of new friends; like to spend time with my friends; etc., but also: I want to learn to exercise properly; I want to do something; etc. Therefore, this factor is named FRIENDS.

The third factor, determined by the motives related to health and good condition, is named HEALTH&FITNES.

Fourth factor, named ENTERTAINMENT is defined by statements as: I like to entertain; I like to be a part of a group; I like to go out.

Fifth factor is mostly determined by conclusions in relation to travelling, but also to other sports relating events, and is named SPORTS TRAVELLING.

Conclusions related to the social position that can be accomplished through sports, determine significantly sixth factor, so it is named SOCIAL STATUS.

Reason for practicing sports, (table tennis) not being listed on any of extracted factors, that explains the best seventh factor, is intrinsic, e.i. I'd like to be relaxed; I'd like to free my energy; is named RELAXATION THRU SPORTS.

Table 3 Factorial structure matrix

	Component						
	1	2	3	4	5	6	7
VP25	,789						
VP21	,741						
VP3	,594	,418					
VP20	,567	,312					
VP14	,539	,431					
VP15		,731					
VP18		,564		,330			,348
VP2		,562			,406		
VP11		,559		,314	,400		
VP17	,464	,494					,374
VP30		,461	,349	,444			
VP6			,673		,418		
VP1			,663				
VP23			,634	,327			
VP24			,584				
VP10			,539			,503	
VP29				,813			
VP22				,574			
VP26	,498			,528			
VP19	,424			,495			,364
VP12		,325	,331	,344			,307
VP5					,770		
VP9					,651	,388	
VP7			,351	,392	,512		
VP28	,368					,707	
VP27						,666	
VP8				,308	,390	,457	,365
VP13							,797
VP4	,333		,438		,398		,548
VP16	,400	,441					,514

4.0 CONCLUSION

Insight in the position of statements that influenced the most interpretation of seven extracted factors in this research, leads to conclusion that sports students choose table tennis from few reasons. The most important is to become popular and to make new friends. Results can partly be explained thru the fact that in Croatia sportsmen are often presented as celebrities in the public, thru the media, while the health aspect is ignored.

But, the fact is that students choose table tennis primarily for positive reasons, such as health aspect. The fact is also that sport students are a selected group, whose enrolment to Faculty of Kinesiology is result of their consciousness of health benefits acquired by regular sport activities.

However, some limits do exist, especially due to methodology. Factor analysis of the motivational structure has been applied to relatively small sample; therefore the results will serve the research purposes above all. Recommendation is that the results should be confirmed in a larger investigation.

5.0 REFERENCES

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