

SPORTS STUDENTS' MOTIVATION IN TABLE TENNIS COURSE AT THE FACULTY OF SPORT IN LJUBLJANA

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Abstract: This study examined the sports students' motives for participating in table tennis sport course held at the Faculty of Sport in Ljubljana. The aim of this research was to provide findings for better planning of the students programs. We included in this research 135 students (70 males & 65 females), who all took the course in table tennis at the Faculty of Sport (SLO). The questionnaire used in this investigation consisted of 30 items. It was designed by Gill, Gross & Huddleston (1983) and is called "Participation Motivation Questionnaire". The questionnaire was distributed in printed form 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 two motives for choosing table tennis were: "I want to be physically fit" and "I Want to stay in a good shape". It is interesting that females have the same top two 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 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, PMQ, sports students

1.0 INTRODUCTION

Table tennis as a top and competitive sport confronts the player with very high both physical and psychological demands, while on the other hand, table tennis as a leisure sporting activity can be pursued until the advanced age. Positive influence of a sporting activity on the body and mind is only possible in case of regular training. Health is not only some static state as it can be improved with regular training (e.g., after an illness). Of paramount importance is here, of course, the proportioning of the extent and intensity of training, which must be adapted to the abilities of an individual.

When playing table tennis, the trainees must feel well. Satisfaction, strokes performed with effortless ease and regeneration after every day stressful situations are the elements, which have an especially prominent role in students sports (Kondrič et al., 2001).

“In the framework of physical and health education at the University of Ljubljana, students can, among other sports, choose table tennis as their main sport. The University of Ljubljana possesses a rich tradition. It ranks as a very large university, with more than 63,000 graduate and postgraduate students. Approximately 4000 higher education teachers are employed in the 3 arts academies and 23 faculties. Specificity of Slovenian universities, despite other European universities, is PE education, which is in some faculties 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” (www.uni-lj.si/en/about_university_of_ljubljana/university_of_ljubljana.aspx).

Analysis results of male and female student's interest confirm popularity of all racket sports, as tennis, table tennis and badminton (Furjan-Mandič et al., 2010). 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 2000. 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. Motivation processes are part of learning process in any human activity. The relationship between the motivational factors and the learning process is best reflected in the Hull-Spencer learning theory (Horga, 1993), 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 studies in many sports, among them also table tennis. Measures of intrinsic and extrinsic motivation in sport and physical activity are the basics for evaluation and planning of student's activity (Vallerand and Fortier, 1998).

The aim of this study was to identify students' motives for participating in table tennis sport course at the Faculty of Sport in Ljubljana. 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 135 students (70 males & 65 females), aged 18 to 22 years, attending classes of Table tennis course at the University of Ljubljana, Faculty of Sport (FS).

2.2. Variables

The Gill, Gross & Huddleston (in Horga, 1993) 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 (SKILL)
2. Friends (FRIE)
3. Winning (WINN)
4. Energy (ENER)
5. Travel (WAY)
6. Fitness (FIT)
7. Experience (EXPE)
8. Team work (TWORK)
9. Parental wish (PARW)
10. Ability (ABIL)
11. New friends (NFR)
12. Expression of personality (PERS)
13. Relaxation (RELX)
14. Awards (AWAR)
15. Good techniques (TECH)
16. Work (WORK)
17. Actions (ACT)
18. Socializing (SOCI)

- | | |
|--------------------------|----------------------------|
| 19. Out of home (HOME) | 25. To be popular (POP) |
| 20. Competitions (COMP) | 26. Challenge (CHALL) |
| 21. Important (IMPO) | 27. Work of coach (COACH) |
| 22. Group (GROU) | 28. Recognition (RECOG) |
| 23. To be better (BETTE) | 29. Fun (FUN) |
| 24. Health (HEALTH) | 30. Sport Equipment (SPEQ) |

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. From the results we can see, that girls have 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 in male students were: "I want to stay in good physical shape and healthy;" (V24. HEALTH), "I want to keep myself in form;" (V6. FIT) "I want to go on to a higher level" (V23. BETTE), and "I Want to have a fun" (V29. FUN). On the other side female students choose: "I want to stay in good physical shape and healthy;" (V24. HEALTH), "I want to keep myself in form;" (V6. FIT) "I like to do what I am successful at;" (V12. PERS), and "I Want to have a fun" (V29. FUN).

Only in four variables, there are significant differences between male and female students (V3. WINN, V11.NFR, V17.ACT and V20.COMP). Namely, female students choose certain sport (table tennis), to realize their aspiration for the winning purposes, while female students consider those variables 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 this research can be presumably explained by the fact that the questionnaire was conducted in the selected group, among the sports 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.SKILL	69	4,25	,830	65	4,25	,685	,000	,999
V2. FRIE	69	3,70	,944	65	3,72	,927	,029	,866
V3. WINN	69	3,88	1,065	65	3,25	1,186	10,757	,001
V4. ENER	69	4,22	,855	65	4,26	,889	,086	,770
V5. WAY	69	3,70	1,115	65	3,95	1,082	1,847	,176
V6. FIT	70	4,61	,572	65	4,58	,583	,089	,766
V7. EXPE	69	4,00	,767	65	3,80	,905	1,913	,169
V8. TWORK	69	3,42	,961	65	3,26	1,020	,861	,355

V9. PARW	70	1,60	,788	65	1,74	1,004	,801	,373
V10. ABIL	70	4,16	,773	65	4,29	,744	1,067	,303
V11. NFR	70	3,64	,993	65	4,02	,739	6,036	,015
V12. PERS	70	4,29	,837	65	4,54	,686	3,651	,058
V13. RELX	70	3,96	,892	65	4,09	1,011	,681	,411
V14. AWAR	70	3,14	1,289	65	2,83	1,193	2,122	,148
V15. TECH	70	4,21	,946	65	4,11	,954	,424	,516
V16. WORK	70	3,96	1,013	65	4,17	,928	1,600	,208
V17. ACT	70	4,26	,793	65	3,69	1,060	12,412	,001
V18. SOCI	70	3,73	1,076	65	3,51	1,017	1,497	,223
V19. HOME	70	4,20	,926	65	4,23	,844	,041	,841
V20. COMP	70	3,89	1,001	65	3,38	1,155	7,287	,008
V21. IMPO	70	3,24	1,256	65	2,98	1,082	1,626	,204
V22. GROU	70	3,74	,912	65	3,51	1,120	1,801	,182
V23. BETTE	70	4,53	,583	65	4,34	,735	2,793	,097
V24. HEALTH	70	4,77	,487	65	4,86	,429	1,295	,257
V25. POP	70	2,91	1,164	65	2,62	1,056	2,429	,121
V26. CHALL	70	3,99	,807	65	3,65	,926	5,176	,024
V27. COACH	70	3,10	1,092	65	3,11	1,033	,002	,967
V28. RECOG	70	3,43	1,084	65	3,31	1,185	,383	,537
V29. FUN	70	4,49	,697	65	4,48	,664	,006	,940
V30. SPEQ	70	3,67	,959	65	3,23	1,142	5,922	,016

Six significant factors have been extracted, by using the Component Analysis of variance, which altogether explained 59% of the whole space being analyzed, (Table 2.)

After Varimax Rotation with Kaiser Normalization accomplishing all six 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.SKILL	7.436	24.787	24.787
V2. FRIE	2.583	8.608	33.396
V3. WINN	2.443	8.143	41.539
V4. ENER	1.930	6.432	47.971
V5. WAY	1.698	5.660	53.632
V6. FIT	1.529	5.095	58.727
V7. EXPE	1.225	4.082	62.809
V8. TWORK	1.101	3.670	66.479
V9. PARW	.963	3.211	69.690
V10. ABIL	.897	2.988	72.679
V11. NFR	.841	2.803	75.482
V12. PERS	.720	2.400	77.881
V13. RELX	.641	2.137	80.019
V14. AWAR	.624	2.082	82.100
V15. TECH	.569	1.895	83.996
V16. WORK	.544	1.813	85.809
V17. ACT	.503	1.678	87.487
V18. SOCI	.460	1.532	89.019
V19. HOME	.421	1.402	90.421
V20. COMP	.405	1.349	91.770
V21. IMPO	.371	1.236	93.006
V22. GROU	.339	1.129	94.135
V23. BETTE	.283	.942	95.077
V24. HEALTH	.278	.927	96.004
V25. POP	.272	.906	96.910
V26. CHALL	.257	.858	97.768

V27. COACH	.216	.720	98.488
V28. RECOG	.176	.588	99.076
V29. FUN	.142	.474	99.550
V30. SPEQ	.135	.450	100.000

The first factor calculated with the factor analysis exploits nearly one fourth of the total space variance explained (24.787%). Based on this result a conclusion can be made that most motives share a significant common space. The other five factors together exploit approximately 2/3 of the same variance as the first. Results show that all six factors together exploit 58.7% of the total space variance. Main projections of the statements which have been offered in the questionnaire on the first factor, are those related to popularity and importance that people involved in sports achieve through sports activities, i.e. victory. Therefore we could name this factor POPULARITY. At first look, we might be surprised at such really high percentage of that variance, since statements related to health were ranked the highest, but on the other hand questions in the questionnaire were not evenly represented, e.g., there was more questions related to success, competition and popularity, in relation to 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 want to improve my skills; I want to learn new skills; I want to go on to a higher level; but also: I want to stay in shape; I like to do something I'm good at; I want to be physically fit. Therefore, this factor is named FITNES&SKILLS

The third factor is named FRIENDS&TENSION and is determined by the motives related to health and good condition,

Fourth factor is defined by statements as, I like to have something to do; I like to go out of the house; etc. and is named ENTERTAINMENT.

Fifth factor is named ACTION and is mostly determined by conclusions in relation to challenge - but also to other sports relating events like fun and action.

Conclusions are related to the social position which can be accomplished through sports and determine significantly sixth factor. Therefore we named it TEAM WORK&SPORTS TRAVELLING.

Table 3 Factorial structure matrix

	Component					
	1	2	3	4	5	6
VP25	.802					
VP3	.791					
VP21	.790					
VP14	.747					
VP20	.716					
VP28	.679			.374		
VP9	.565			.314		
VP10		.803				
VP1		.786				
VP23	.353	.656				
VP24		.575				
VP6		.527				
VP12		.441				
VP4			.703			
VI13			.700			
VP2			.689			
VP11		.334	.473			

VP16			.710		
VP19			.701	.411	
VP27	.371		.595		
VP15	.326	.418	.461		
VP30		.376	.421		
VP7				.854	
VP17				.682	
VP26			-.369	.514	.442
VP29				.505	
VP18					.676
VP22	.397		.315		.666
VP8			.394		.564
VP5					-.548

4.0 CONCLUSION

The results lead us 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 among others be explained thru the fact that in Slovenia people involved in sports are often presented as celebrities in the public, thru the media, while the health aspect is ignored.

Another fact is that students choose table tennis primarily for positive reasons, such as health aspect – which is not always a case in other sports. The fact is also that sport students are a selected group, whose enrolment to Faculty of Sport is result of their consciousness of health benefits acquired by regular sport activities.

At the end we have to be aware that some limits do exist, especially due to methodology. In our case factor analysis of the motivational structure has been applied to relatively small sample. Therefore the results obtained in this survey will serve the research purposes above all. Recommendation and further part of this project is that the results should be confirmed in a larger investigation on different faculties at the University of Ljubljana.

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