

EXAMINATION OF ATTENTION LEVELS OF ATHLETES WHO DO TAEKWONDO, KARATE AND MUAYTHAI

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Abstract

Attention is one of the most important parts of cognitive functions in education, work and sports life as well as in many of our daily activities. Attention is one of the characteristics which is necessary in sports in order to reach to a good level. This research was done with the aim of examination of the attention levels of athletes who do Taekwondo, Karate and Muayhtai between the ages of 10 and 20. According to this aim, 61 male and 29 female athletes took part in this research. Bourdon Attention Test which was improved by Bourdon (1955) was used to determine the attention levels of the subjects from whom the exemplifications were taken. Gathered information was analyzed by using t-test in SPSS pocket program.

To conclude, the attention levels of the athletes from 10-20 age group who do Taekwondo, Karate and Muayhtai were examined, it has been found that there is no significant difference between the attention levels of the subjects and age, gender and sports branch they do.

Key words: Taekwondo, Karate, Muayhtai, Attention

Introduction

At any moment in time, people are bombarded with various stimuli, only some of which are relevant to current goals and only a few of which will ever reach our consciousness. The many stimuli present may each require a different action (actions) that are often incompatible with each other (A. Johnson and A.W. Proctor, 2004). Attention is to react preferentially to the related stimulus by eliminating the stimuli (M.H. Anshel et al. 1991). Attention may change depending on motivation level that child show to the different duties, their interests and skills (H.A. Ruff and M.K. Rothbart, 1996). It has been reported that little children are weaker in paying attention to these stimuli by neglecting visual stimuli and pay less attention in stimuli in the environment than adults (V. Nougier and B. Rossi, 1999). From the many years, attention has been concerned with the factors that affect learning a motor skill. In motor-learning as a science, attention is defined as, in the human performance, the conscious or unconscious engagement in perceptual, cognitive and motor activities before, during and after performing skills; the human information- processing systems includes limitation to the number of these activities that can be performed simultaneously. Attention has the limited capacity that effects the performance when done more than one activity at the sometime (R.A. Magill, 2004). When the attentional demands of the first task increase, performance on the second task will decline (as cited in C.K. Wirth, 2004). Attention also includes the processes of filtering our perceptions, balancing our several perceptions and adding emotional importance to these perceptions of us. The skill of controlling thinking processes and concentrating on one duty in the necessary key element for the effective

performance in sports (R.M. Nideffer, 1993). Organism focusses on the stimuli that directly affect the behaviour. Selectivity may occur in very different behaviour situations, is multi-directional and is seen as basic condition for the sports performance (S.H. Boutcher, 1992). Requiring thinking, planning and analysing, athletes use wide-internal focus. The attention focus is wide since athletes should focus on many things at one time and the focus direction is internal for data processing. Attention is to focus on previous experiences and strategies. In other times; athlete needs to be aware of complicated and quickly changing environment and to evaluate the situation to give suitable reaction. In these situations, he uses wide-external focus. He should evaluate external clues quickly and then one related to the duty is chosen (S.H. Boutcher, 1992, R.M. Nideffer, 1992).

The aim of the research is to examine the attention levels of athletes who do Taekwondo, Karate and Muayhtai between the ages of 10 and 20 according to the sports branch they do.

Method

90 athletes between the ages of 10 and 20 who do Taekwondo, Karate and Muayhtai took part in the research voluntarily.

In the research, the attention levels of the subjects and the difference between sports branches were examined. In order to determine the attention levels of the subjects in the research, "Bourdon Attention Test" developed by Benjamin Bourdon (1995) was used. Bourdon attention test is a test measuring attention, its density, the speed of mobility, concentration (Y. Brunner, 2006). In this research, the letter form of Bourdon attention test was used. Students were asked to find "b, d, g, and p" and mark them. In evaluation of the test, true-false answers of the children were taken into

consideration. Each true answer was accepted one point. The maximum score that could be taken in the test was determined as 110. The individual's score's increasing meant the increasing of the attention level. Its reliability; the reliability of the test was done by the researcher. Test-retest reliability was calculated as reliability study and correlation coefficient was examined. This coefficient was found as 78. Its validity; at the end of criteria validity study, the correlation of Bourdon attention test was found as 63.

Statistical analysis

In the evaluation of received data, One – Way ANOVA and unpaired t-tests were used to determine significant differences for each dependent variable. For all analyses, the criterion for significance was set at an alpha level of $p < 0.05$.

Results

As seen in table 1, the gender and age information of the athletes who do Taekwondo, Karate and Muaythai in the research is presented.

As seen in table 2, the number of marked true-false letters at the end of Bourdon test, the number of unmarked letters were examined according to the sports branches and no significant difference has been found between sports branches of the athletes who do Taekwondo, Karate and Muaythai in the research and their attention levels. ($p > 0.05$)

As seen in table 3, the number of marked true-false letters at the end of Bourdon test, the number of unmarked letters were examined according to the gender variable and no significant difference has been found between genders of the athletes who do Taekwondo, Karate and Muaythai in the research and their attention levels ($p > 0.05$).

Discussion and conclusion

In the study where the attention levels of athletes who do Taekwondo, Karate and Muaythai between the ages of 10 and 20 were examined;

Totally 90 subjects, 27 females, 62 males, took part in the research. When sports branches were examined according to the age, The maximum average values have been found as in: %55.2 for 10-12 age group in Taekwondo, %43.3 for 13-15 age group in athletes doing karate, %46.7 for 16-18 age group in athletes doing Muaythai (table 1). No significant difference has been found between sports branches of the athletes who do Taekwondo, Karate and Muaythai in the research and their attention levels (Table 2). It is thought that there is no significant difference between sports branches of the subjects and their attention levels since Taekwondo, Karate and Muaythai are all from the far east and include similar techniques in terms of movement discipline.

The attention levels of 29 gymnasts aged 7-13 were examined and number of total marked items of older gymnasts was found to be higher (G.Tenenbaum et al., 1987). In a study where the effects of paying attention level of students in 4th and 5th classes in primary school over self-perception and success levels were examined, the practices of paying attention education were found to cause significant differences in paying attention levels but that didn't differ according to the classes and genders of the students (B.D.Karaduman, 2004). In the validity and reliability studies of Turkish athletes of d2 test evaluating attention, no significant difference was found between genders but difference was found between the education years of the subjects (E. Çağlar, 2003).

The number of marked true-false letters at the end of Bourdon test, the number of unmarked letters were examined according to the gender variable in the subjects participated in research and no significant difference has been found between genders of the athletes who do Taekwondo, Karate and Muaythai in the research and their attention levels (table 3). Even if it doesn't seem that subjects' being male or female doesn't affect attention level, female subjects have been determined to mark more true letters than males. Although some researches on attention in literature point out girls are better in paying attention skill (A. Helmke and A. Rankl 1993, J. Borchert, 1998) and some researchers suggest boys (C. Neuhaus, 2000), it is reported in that field literature about attention that there is no difference between boys and girls in keeping attention S. Kaymak (2003) found that there was no difference between girl and boy students in terms of paying attention level. Attention study was done to the 18-32 aged students and no significant relation was found between attention and gender variable (E.A. Zillmer and C.H. Kennedy, 1999). This research findings show similarity with the study.

In conclusion, in the study where the attention levels of athletes who do Taekwondo, Karate and Muaythai between the ages of 10 and 20 were examined, no significant difference has been found between age, gender and sports branches of the subjects and their attention levels. But it has been determined that the attention values of female subjects are higher than males'. Since Taekwondo, Karate and Muaythai are all from the far east sports and similar movements and techniques are used by athletes in them, it is thought that there is no significant difference in attention levels of the athletes.

Table 1: Percentage (%) and frequency distribution of age ranges related to the subjects in the research according to the branches.

	gender	age	f	%
Teakwondo N:29	female:13 male:16	10-12 age	16	55,2
		13-15 age	9	31,0
		16-18 age	2	6,9
		20 and over	2	6,9
		Total	29	100,0
Karate N:30	female:9 male:21	10-12 age	9	30,0
		13-15 age	13	43,3
		16-18 age	6	20,0
		20 and over	2	6,7
		Total	30	100,0
Muaythai N:30	female:5 male:25	10-12 age	3	10,0
		13-15 age	3	10,0
		16-18 age	14	46,7
		20 and over	10	33,3
		Total	30	100,0

Table 2: examining attention values of the subjects in the research according to the sports branches.

variables		Sum of Squares	Mean	F	p
number of marked true letters	Between Groups	1923,604	961,802	1,778	0,175
number of marked false letters	Between Groups	1,338	0,669	0,615	0,543
Total number of marked letters	Between Groups	1993,780	996,890	1,851	0,163
number of unmarked letters.	Between Groups	1399,319	699,660	1,167	0,316

Table 3: examining attention levels of the subjects in the research according to the gender variable.

	gender	N	Mean	Std. Deviation	t	P
number of marked true letters	female	27	76,59	25,740	0,495	0,622
	male	62	73,90	22,571		
number of marked false letters	female	27	0,15	0,534	0,930	0,355
	male	62	0,37	1,191		
Total number of marked letters	female	27	76,74	25,604	0,454	0,651
	male	62	74,27	22,601		
number of unmarked letters.	female	27	73,41	25,740	0,707	0,481
	male	62	77,42	24,096		

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