

INVESTIGATION OF DECISION MAKING STYLES OF ACTIVE ATHLETES

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ABSTRACT

The aim of this research is to examine the decision-making strategies of Judo and Boxing athletes in Turkey Olympic Preparatory Centre in Trabzon by 2017. The sample group of the research is composed of Judo and Boxing athletes in the Olympic Preparatory Centre in Trabzon. The Melbourne Decision Making Scale, which was developed by Mann et al. (1998) and adapted to Turkish by Deniz (2004), has been used as a data collection tool in the research.

SPSS 21 package program was used for analysis of research data. In the evaluation of the data as a statistic, the t test was used for binary comparisons and the one way ANOVA test was used in the evaluation of the overly hypertensive groups and $p < 0,05$ was taken for the level.

The athletes participating in the survey had higher self-esteem and decision-making levels and preferred careful decision-making styles from decision-making style sub-dimensions, followed by evasive, dilatory and panic decision style sub-scales respectively. It is seen that female athletes have higher self-esteem levels than male athletes and that female athletes prefer cautionary decision style sub-scale and male athletes prefer avid decision style sub-scale. In the study, it was determined that under-graduate athletes have self-esteem and careful decision-making sub-dimension in decision making and athletes with high school education level use inferior decision making sub-dimension. Spore; at least for the development of decision-making strategies, the community should be offered to all age groups.

Keywords: Decision Making, Olympic Preparation Centre, Athlete

INTRODUCTION

The health of a society depends on its each member being healthy, and these members need to do regular physical activity to have a healthy body. Sport is an activity that enables the compatible and balanced development of individuals in physiological and psychosocial terms. Therefore, the place and importance of sport in individuals' adaptation to social life is very important (Hergüner, 1991).

Sport activities provide individuals with skills to carry activities together. Individuals acquire a competitive structure, work discipline, courage and fighting resolution. They learn accepting victory and defeat, sharing, cooperation, and respecting others' opinions and thoughts (Şahan, 2008). Sport refers to intense efforts to develop physical and mental health, to compete in accordance with certain rules, to feel excitement, to compete and win, to increase performance, and attaining the personal best (Aracı, 1999). Decision-making skill is a very important indicator of sportive achievement (Egesoy et al., 1999).

Decision-making refers to choosing the most appropriate of the possible acting forms in accordance with the available conditions and opportunities (Kuzgun, 2000). Therefore, decision can be defined as the judgement had by thinking on a task or problem. In the simplest terms, decision-making is obtaining a result or solving some problems (Eskicioğlu, 2010). According to Heppner (1978), decision-making involves specific acts, such as evaluating the possibilities and options and monitoring the results. Completion of the case requiring a decision correctly necessitates a correct approach (Yılmaz, 2011). Decision-making has a very important place in sports, as it does in many aspects of life, such as politics, social life, environment and school (Akcan, 2016).

Individuals are in constant expectations and new quests, which put them on the spot in using the strategies they follow in decision making. For this reason, decision-making approach and the strategies and styles individuals use in decision-making behaviours are important (Ersever, 1996). According to Deniz (2004), individuals use careful, evasive, dilatory and panic decision making styles in the decision making process (Shiloh et al., 2001). Decision making style refers to the learnt and routine reaction form individuals use when they encounter a decision-making situation. The decision-making styles athletes use, the results of their decision and the result of the competition is a concrete indicator that physical capacity is not enough for athletic achievement (Ün, 2010). Decision-making and decision-making styles affect not only daily life but also the athletic life. Proper and correct decisions made in sport environments affect sport positively; just as the wrong decisions affect both the athlete within the game and the result of the game negatively. Elite athletes need to take different resources of information into consideration and make quick decisions (Leveaux, 2010; Soyer et. al., 2012; Bayansalduz, 2012; Toros et. al., 2010).

Decision-making is not an easy skill for individuals. Especially in a case of solving a problem, decision-making process can create an emotional impasse (Güçray, 1998; Bayansalduz, 2014). In decision-making individuals encounter a hardship (Yayla, 2011). In sport environments, decisions are generally complex and for solving a problem under stress. At the same time, time limitations for decision-making can vary by sport branches. While there is no time limit in such sports as golf and sailing, the time for making a decision can be limited in some, such as ball games, team games and martial arts (Seiler, 1997). Indeed, how people think in sport environments, how they analyse the current situation and make judgements are important subjects of research that can be studied in lab conditions. Glovich (1984) states that sport world is the most appropriate area for decision-making studies, because it was stated that sport world was a potential

laboratory for studying humans' cognitive structures related to decision-making (Bar-Eli and Raab, 2006).

Thus, decision-making skill, which one of the important behavioural forms, explains athletes' behaviours they exhibit within competition lives and is one of the most important cognitive processes that has an important determining role in their anxiety levels, coping with problems they encounter, and their success and performances. Behaviours of active athletes in sport environment are not clear, they sometimes cannot evaluate alternative situations during competitions, they want to avoid some decisions and responsibilities, they may fail to manage time or hurry in critical cases, which all indicate that their improving making correct and healthy decisions skills is of utmost importance (Can et. al., 2014; Konter et al., 2013). Therefore, it is believed that improving decision-making styles of individuals, who participate in sport activities, can contribute to creating proper and healthy sport environments.

Accordingly, the purpose of the present research is investigating decision-making styles of active athletes. Additionally, the present research studies whether decision-making styles of active athletes vary significantly by some independent variables, such as gender, branch, age, and parents' educational background.

METHOD

This part of the paper presents information about the research model, research group, data collection, data collection tools and processes followed during data analysis.

The present research adopted screening model. Screening models aim at defining a past or an existing case as they are on a sample group selected among a universe of larger groups. The individual or the objects as the subject of the research is defined in its own conditions as it is. There is no effort to change or affect these in any way. The subject of the study exists and is there. The main point is observing and defining the phenomenon under study (Karasar, 1999).

The universe of the present research consists of the athletes in Trabzon Olympic Training Centre; while the sample consists of 63 judoists and 27 boxers. Data were collected with Melbourne Decision Making Questionnaire, which was developed by Mann et al. (1989) and adapted to Turkish by Deniz (2004) as 28-item Self-esteem and Decision Making Questionnaire, and "Personal Information Form". Of the 28-items of Self-esteem and Decision Making Questionnaire, 22 items are for decision-making, which consists of four factors (Deniz, 2004). *Careful Decision Making Style*: It refers to scanning necessary information meticulously and evaluating the alternatives carefully before making a decision. This factor is measures with six items (2, 4, 6, 8, 12, 16). *Evasive Decision Making Style*: It refers to avoiding decision-making, tendency to leave it to others and accordingly passing responsibility to others. This factor is measures with six items (3, 9, 11, 14, 17, 19). *Dilatory Decision Making Style*: It refers to postponing decision-making constantly for no good reason and procrastinating it. This factor is measures with five items (5, 7, 10, 18, 21). *Panic Decision Making Style*: It refers to the effort to have quick

solutions with hasty behaviours for a decision making case creates a pressure. This factor is measured with five items (1, 13, 15, 20, 22).

Deniz (2004) tested the reliability of Melbourne Decision Making Questionnaire (MDMQ I-II) with test-retest and internal consistency methods. For test-retest method, MDMQ was conducted on 56 university students twice in three-weeks, and found that the reliability coefficients ranged between $r=.68$ and $r=.87$. For internal consistency, Deniz (2004) conducted an item analysis, which revealed that of the 28 items, 26 had the total correlations above .33, and for the other two items total correlations were .26 and .27. Data collected for the present research were analysed on SPSS 18.0 program. The fitness of the data to normal distribution was tested with normality test. Since the test revealed that the data didn't distribute normally, Mann Whitney U test was used for groups of two, while Kruskal Wallis H test was utilized for groups of more than two.

FINDINGS

This part presents findings obtained through data analysis.

Table 1. T Test Results for the Variation in Participants' Decision Making Strategies by Gender Variable

Factors	Gender	N	\bar{X}	Sd	t	p
Self-esteem	Female	54	1,15	,291	-4,41	,000*
	Male	36	1,44	,326		
Careful Decision Making	Female	54	1,12	,231	-5,54	,000*
	Male	36	1,41	,265		
Evasive Decision Making	Female	54	1,06	,309	-1,17	,243
	Male	36	1,14	,314		
Dilatory Decision Making	Female	54	1,05	,316	2,26	,026*
	Male	36	,88	,377		
Panic Decision Making	Female	54	1,01	,256	,58	,563
	Male	36	,97	,281		

As presented in Table 1, there are significant differences in self-esteem ($t=-4,41$, $p<.01$), careful decision making ($t=-5,54$, $p<.01$) and dilatory decision making ($t=2,26$, $p<.05$) factors across genders. Average scores of groups were studied to find out which groups had higher scores. Accordingly, male participants had higher scores in self-esteem [female ($X= 1,15$) male ($X=1,44$)] and careful decision-making [female ($X= 1,12$) male ($X=1,41$)] dimensions, and female participants had higher scores in dilatory decision-making [female ($X= 1,05$) male ($X=,88$)] dimension. It was also found that, participants' scores in evasive decision-making ($t=-1,17$, $p>.05$) and panic decision-making ($t=,58$, $p>.05$) dimensions didn't vary significantly by gender variable.

Table 2. *T Test Results for the Variation in Participants' Decision Making Strategies by Branch Variable*

Factors	Branch	N	\bar{X}	Sd	t	p
Self-esteem	Judo	63	1,19	,33	-3,40	,001*
	Box	27	1,44	,28		
Careful Decision Making	Judo	63	1,18	,27	-2,957	,004*
	Box	27	1,37	,25		
Evasive Decision Making	Judo	63	1,02	,23	-3,435	,001*
	Box	27	1,25	,40		
Dilatory Decision Making	Judo	63	,91	,26	-3,250	,002*
	Box	27	1,16	,46		
Panic Decision Making	Judo	63	,96	,19	-1,989	,050
	Box	27	1,08	,37		

As presented in Table 2, there are significant differences in self-esteem ($t=-3,40$, $p<.01$), careful decision-making ($t=-2,95$, $p<.01$), evasive decision-making ($t=-3,43$, $p<.01$), and dilatory decision-making ($t=-3,25$, $p<.01$) dimension across branches. Average scores of groups were studied to find out which groups had higher scores. Accordingly, boxers had higher scores than judoists in self-esteem [judo ($X= 1,19$) box ($X=1,44$)], careful decision-making [judo ($X= 1,18$) box ($X=1,37$)], evasive decision-making [judo ($X= 1,02$) box ($X=1,25$)] and dilatory decision-making [judo ($X=,91$) box ($X=1,16$)] dimensions. It was also found that, participants' scores in panic decision-making ($t=-1,98$, $p>.05$) dimension didn't vary significantly by branch variable.

Table 3. *T Test Results for the Variation in Participants' Decision Making Strategies by Mother Employment Variable*

Factors	Mother Employment	N	\bar{X}	Sd	t	p
Self-esteem	Housewife	8	1,25	,33	-1,303	,196
	Employed	7	1,42	,30		
Careful Decision Making	Housewife	8	1,22	,28	-2,342	,021*
	Employed	7	1,47	,22		
Evasive Decision Making	Housewife	8	1,08	,31	-1,690	,095
	Employed	7	1,28	,24		
Dilatory Decision Making	Housewife	8	,98	,35	-,535	,594
	Employed	7	1,05	,32		
Panic Decision Making	Housewife	8	1,00	,26	,567	,572
	Employed	7	,94	,25		

As presented in Table 3, there is a significant difference in careful decision-making dimension ($t=-2,34$, $p<.05$) in terms of mother employment variable. Average scores of groups were studied to find out which groups had higher scores. Accordingly, participants, whose mothers were employed, had higher scores than participants, whose mother were housewives in careful decision-making

[housewife ($X= 1,22$) employed ($X=1,47$)] dimension. It was also found that, participants' scores in self-esteem ($t=-1,30$, $p>.05$), evasive decision-making ($t=-1,69$, $p>.05$), dilatory decision-making ($t=-,53$, $p>.05$) and panic decision-making ($t=,56$, $p>.05$) dimensions didn't vary significantly by mother employment variable.

Table 4. Variance Analysis Results for the Variation in Participants' Decision Making Strategies by Age Variable

Factors	Variables	N	Mean	Sd	F	P
Self-esteem	12-14	30	1,00	,00	26,56	,000*
	15-17	21	1,53	,30		
	18 and older	39	1,33	,33		
	Total	90	1,27	,33		
Careful Decision Making	12-14	30	1,00	,00	24,92	,000*
	15-17	21	1,34	,25		
	18 and older	39	1,36	,29		
	Total	90	1,24	,28		
Evasive Decision Making	12-14	30	1,00	,00	5,20	,007*
	15-17	21	1,26	,30		
	18 and older	39	1,07	,39		
	Total	90	1,09	,31		
Dilatory Decision Making	12-14	30	1,00	,00	2,92	,059
	15-17	21	,83	,45		
	18 and older	39	1,06	,39		
	Total	90	,98	,35		
Panic Decision Making	12-14	30	1,00	,00	1,12	,329
	15-17	21	1,06	,23		
	18 and older	39	,95	,36		
	Total	90	,99	,26		

As presented in Table 4, there are significant differences in self-esteem ($F=26,56$; $P<.01$), careful decision-making ($F=24,92$; $P<.01$) and evasive decision-making ($F=5,20$; $P<.05$) dimensions in terms of age variable. Average scores of groups were studied to find out which groups had higher scores. Accordingly, self-esteem scores of 15-17 year-old participants ($X= 1,53$) were higher than participants, who were 18 and older ($X= 1,33$) and 12-14 years old ($X= 1,33$).

Evasive decision making scores of 15-17 years old participants ($X= 1,26$) were higher than participants, who were 18 and older ($X= 1,07$) and 12-14 years old ($X= 1,00$); careful decision-making scores of participants, who were 18 and older ($X= 1,36$) were higher than participants, who were 15-17 years old ($X= 1,34$) and 12-14 years old ($X= 1,00$). It was also found that there were no significant differences in dilatory decision-making ($F=2,92$; $P>.05$) and panic decision-making ($F=1,12$; $P>.05$) dimensions in terms of age.

Table 5. Variance Analysis Results for the Variation in Participants' Decision Making Strategies by Educational Degree Variable

Factors	Variables	N	Mean	Sd	F	P
Self-esteem	Secondary S.	30	1,00	,00	22,95	,000*
	High S.	33	1,45	,33		
	University	27	1,34	,33		
	Total	90	1,27	,33		
Careful Decision Making	Secondary S.	30	1,00	,00	25,19	,000*
	High S.	33	1,34	,26		
	University	27	1,38	,29		
	Total	90	1,24	,28		
Evasive Decision Making	Secondary S.	30	1,00	,00	2,20	,117
	High S.	33	1,14	,39		
	University	27	1,14	,36		
	Total	90	1,09	,31		
Dilatory Decision Making	Secondary S.	30	1,00	,00	,32	,727
	High S.	33	,95	,48		
	University	27	1,02	,35		
	Total	90	,98	,35		
Panic Decision Making	Secondary S.	30	1,00	,00	,007	,993
	High S.	33	1,00	,32		
	University	27	,99	,33		
	Total	90	,99	,26		

As presented in Table 5, there are significant differences in self-esteem ($F=22,95; P<.01$) and careful decision-making ($F=25,19; P<.01$) dimensions in terms of education. Average scores of groups were studied to find out which groups had higher scores. Accordingly, self-esteem scores of high school graduate participants ($X= 1,45$) were higher than university graduate ($X= 1,34$) and secondary school graduate ($X= 1,00$) participants, and careful decision-making scores of university graduate participants ($X= 1,38$) were higher than high school graduate ($X= 1,34$) and secondary school graduate ($X= 1,00$) participants.

It was also found that there were no significant differences in evasive decision-making ($F=2,20; P>.05$), dilatory decision-making ($F=,32; P>.05$) and panic decision-making ($F=,007; P>.05$) dimensions in terms of educational level variable.

DISCUSSION

According to the findings of the present research, there are significant differences in self-esteem, careful decision-making and dilatory decision-making dimensions in terms of gender variable. According to score averages of groups, male participants have higher scores than female in self-esteem and careful decision-making dimensions, while female participants had higher scores in dilatory decision-making dimension. Accordingly, we can suggest that female

athletes should develop their self-esteem by being aware of their senses of self-respect and confidence. According to Köse (2002), self-esteem in decision-making is explained by individuals' autonomous behaviours and self-confidence. Therefore, we can claim that female athletes' making more careful decisions by taking their goals and all alternatives into consideration before making decisions is resulted from the necessity to have different emotional and mental structures and thinking skills. Kelecek et al. (2013), who conducted a study to define athletes' decision-making styles, reported that self-esteem and decision-making styles didn't vary by gender and sportive experience (Akpınar et al. 2015). This finding contradicts with the findings of the present research.

Another finding of the present research is that athletes' evasive decision-making and panic decision-making scores didn't vary by gender. According to this finding, we can claim that male and female athletes need to make decisions on their own in competition environment since judo and boxing sports are done individually, which may cause them to feel defeated, think they are unsuccessful, and their hurried behaviours in critical cases may affect their evasive and panic decision-making levels. Avşaroğlu (2007) reported that university students' self-esteem in decision-making and decision-making styles score averages didn't vary by gender at a significant level. Many other studies also reported that decision-making styles didn't vary by gender (Tekin and Ehtiyar, 2010; Köksal and Gazioğlu, 2007). On the other hand, Çetin et al. (2011), who studied the relationship between decision-making and reaction time among elite kick boxers, reported that male athletes with faster reaction time preferred careful decision-making style; while female athletes with faster reaction time preferred panic decision-making style.

The findings of the present research revealed significant differences in participants' self-esteem, careful decision-making, evasive decision-making and dilatory decision-making scores in terms of branches. Accordingly, boxers have higher average scores than judoists in these dimensions. Therefore, we can claim that athletes' decision-making styles may differ based on the content of their training program. Additionally, even Judo and boxing similar in terms of physical effort as both are combat sports, that judoists didn't have higher problem solving skills than boxers and the stress factors are different for these athletes may have caused the difference in the use of decision-making strategies. Additionally, it was found that participants' panic decision-making scores didn't vary by branch variable.

Kural (2013), who conducted a study on the relationship between coping with stress attitudes and self-esteem in decision-making and decision-making styles among mountaineers, reported that mountaineers' self-esteem in decision-making levels were above average, they had average level careful decision-making scores and they had high averages in making decisions after elaborately searching for necessary information and carefully evaluating the alternatives. It was also reported that mountaineers had low levels in dilatory decision-making dimension.

There is a significant difference in participants' careful decision-making style dimension in terms of mother employment status. According to the average scores of groups, participants, whose mothers are employed, had higher careful decision-making score average than the ones, whose mothers are housewives. Additionally, it was found that, participants' scores in self-esteem, evasive decision-making,

dilatory decision-making and panic decision-making dimensions didn't vary significantly by mother employment variable.

Brown and Mann (1990) state that decision-making is a skill that can be learned through education, and family environment is one of the most important factors affecting the development of decision-making skills. It can be claimed that democratic family environment is the most appropriate environment for the adolescents to develop decision-making skills and learn to make healthy decisions. On the other hand, protective and authoritarian family environments are not as good for the development of decision-making skills, and adolescents from these types of families are more indecisive and make impulsive decisions (Eldeleklioğlu, 1996). Akpınar et al. (2015) analysed whether self-esteem in decision-making and decision-making styles varied by mother employment status variable among hockey players with t-test, and they reported that hockey players, whose mothers were employed, had higher scores in panic decision-making dimension than the players, whose mothers weren't employed.

Another finding of the present research is that there are significant differences in self-esteem, careful decision-making and evasive decision-making dimensions in terms of age variable. Average scores of groups were studied to find out which groups had higher scores, which showed that self-esteem scores of 15-17 year-old participants were higher than participants, who were 18 and older and 12-14 years old. Accordingly, we can claim that older judoists and boxers define themselves more positively in terms of self-esteem in decision-making and exhibit more internally consistent behaviours. Athletes may be expected to prefer evasive decision-making style when they experience difficulties in coping with problems in sport environments and life. Similarly, Kural (2013) reported that mountaineers' self-esteem in decision-making varied by age and mountaineers, who were 33-37 years old and 38 and older had higher self-esteem in decision-making scores. These findings are in agreement with the findings of the present research.

It was also found that, 18 year-old or older athletes had higher scores in careful decision-making dimension than athletes, who were 15-17 and 12-14 years old. Additionally, dilatory decision-making and panic decision-making dimensions didn't vary significantly by age variable. Birol and İnce (2016) found in their studies that panic decision-making dimension varied significantly by age. Vural (2013) reported that there were no significant differences in dilatory decision-making and panic decision-making dimensions. Akpınar et al. (2015) didn't report any significant differences in hockey players' decision-making styles in terms of age. Akcan (2016) stated in accordance with the findings of their research that the subjects made more careful decisions in cases of problems they encounter in sport environments and tactics or changed behaviours against them as their biological age got older. Baş et al. (2015), who conducted a study on the decision-making strategies of veteran footballers, reported that there were no significant differences in dilatory and panic decision-making dimensions in terms of age, while there was a significant difference between 46-50 years old veteran footballers and others in careful decision-making dimension, in favour of 46-50 years old veteran footballers. The findings of the present research, that there were significant differences in some of the decision-making styles in terms of age, is in

agreement with the findings of some previous studies (Demirbaş 1992; Özcan, 1999).

The present research also found that there were significant differences in self-esteem and careful decision-making dimensions in terms of educational background. Average scores of groups were studied to find out which groups had higher scores. Accordingly, self-esteem scores of high school graduate participants were higher than university graduate and secondary school graduate participants, and careful decision-making scores of university graduate participants were higher than high school graduate and secondary school graduate participants. It was also found that there were no significant differences in evasive decision-making, dilatory decision-making and panic decision-making dimensions in terms of educational level variable. Kural (2013) reported that self-esteem in decision-making, careful, evasive, dilatory and panic decision-making dimensions score averages of mountaineers didn't vary significantly by education variable. Therefore, it was suggested that mountaineers with higher education degrees made decisions carefully by focusing on their decisions, they didn't present any timid behaviours and weren't prone to avoiding responsibility.

Kıloğlu (2017) reported in their study on the decision-making styles of athletes attending Turkey Olympic Training Centres that athletes' dilatory and panic decision-making dimension scores didn't vary significantly by education variable, while self-esteem in decision-making, careful decision-making and evasive decision-making dimensions varied significantly by education variable. Eraslan (2015) found in the study on the impulsivity and decision-making styles of university students at sport-related department that students' decision-making styles didn't vary significantly by gender, department, and being a certified athlete variables. Uzunoğlu (2008), who conducted a study Turkish football referees, reported that there was a significant difference in evasive decision-making dimension in terms of education, and this difference was between high school graduate referees and referees with master's and bachelor's degrees. The findings of the present research, that there were significant differences in some of the decision-making styles in terms of education, is in agreement with the findings of some previous studies (Sanders, 2008; Tiryaki, 1997).

CONCLUSION AND SUGGESTIONS

- Significant differences were found in self-esteem, careful decision-making and dilatory decision-making dimensions in terms of gender variable and male participants had higher scores than female in self-esteem and careful decision-making dimensions, while female participants had higher scores in dilatory decision-making dimension, and it was suggested that female athletes should develop their self-esteem by being aware of their senses of self-respect and confidence.

- Significant differences were found in participants' self-esteem, careful decision-making, evasive decision-making and dilatory decision-making scores in terms of branches, and boxers had higher average scores than judoists in these dimensions. Accordingly, it was concluded that athletes'

decision-making styles may differ based on the content of their training program.

▪ A significant difference was found in participants' careful decision-making style dimension in terms of mother employment status. According to the average scores of groups, participants, whose mothers are employed, had higher careful decision-making score average than the ones, whose mothers are housewives.

▪ Significant differences were found in self-esteem, careful decision-making and evasive decision-making dimensions in terms of age variable. Self-esteem scores of 15-17 year-old participants were higher than participants, who were 18 and older and 12-14 years old. It was suggested that older judoists and boxers define themselves more positively in terms of self-esteem in decision-making and exhibit more internally consistent behaviours.

▪ Significant differences were found in self-esteem and careful decision-making dimensions in terms of educational background. Average scores of groups were studied to find out which groups had higher scores, which showed that self-esteem scores of high school graduate participants were higher than university graduate and secondary school graduate participants, and careful decision-making scores of university graduate participants were higher than high school graduate and secondary school graduate participants. It was suggested that athletes with lower educational degrees should improve their decision-making skills in order to be able to cope with problems they face in sport environments. The following suggestions were developed in accordance with the findings obtained in the present research;

- Similar studies can be conducted including wider socio-demographic variables on a wider universe, on more athletes from other branches, and trainers and athletes can be provided with trainings in order to develop their decision-making skills.
- Project, seminars, etc. should be carried in order to enable athletes' make more effective and positive decisions in sport competitions.
- More valid findings can be obtained with long-term studies, by conducting frequent measurements in order to comprehend and associate decision-making strategies better.
- Factors negatively affecting self-esteem and decision-making styles of athletes attending Turkey Olympic Training Centres should be defined and new strategies should be developed for more effective decision-making processes.
- Awareness should be raised among families on the importance of raising children in a more communicating way and not by criticising everything they do, so that they can express themselves freely, and become healthier individuals both mentally and physically, who can make positive decisions.

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