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# ANALYSIS OF WRESTLERS' THINKING STYLES

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## Abstract:

The objective of this study is to analyze the thinking styles of wrestlers. 267 licensed wrestlers participated in the study. "Rational-Experiential Thinking Styles Inventory" developed by Epstein et al. (1996) and adapted into Turkish by Buluş (2003) was used to find out the thinking styles of wrestlers. In statistical analysis of the data, t test was used for independent groups while one way variance analysis was used for the comparison of multiple groups. When the rational thinking style levels of wrestlers were examined in terms of age, no statistical difference was found (p>0.05). When the intuitive thinking style levels of wrestlers were examined in terms of age, it was found that wrestlers between the ages 21 and 27 had higher intuitive thinking style levels than wrestlers between the ages 18 and 20 (p<0.01). No significant difference was found between high school or university students in terms of rational and intuitive thinking styles (p>0.05). It was found that being a national team athlete and sports age did not have an influence on rational or intuitive thinking styles of athletes (p>0.05). As a conclusion, when athletes' scores from thinking styles were examined, it was found that both thinking styles were used at an intermediate level. It was found that age had an influence on intuitive thinking style, while being in a high school or university student, being in a national team athlete and sports age did not have an influence on thinking styles.

Keywords: wrestling, rational-intuitive thinking, sport

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## 1. Introduction

The future of societies is possible with being able to educate individuals who have a high capacity of thinking, creating and reasoning. Within this context, the aim of education should include not only teaching, but also organizing and developing top level thinking skills for creativity and problem solving (Çubukçu, 2004). The most important characteristic of human beings which is not present in other living beings is the power of thinking. In our daily lives, we have thousands of thoughts running in our minds while we are talking, reading, travelling or eating. Where these thoughts come from, what they evoke and what is gained as a result of these thoughts differ from person to person (Balgamış, 2007).

Style is defined as the way an individual prefers in using skills and processing knowledge. From this perspective, style is thought not only as a skill in its own, but as preferences an individual makes in using the skills. The definition of style as a preference emphasizes its difference from skills because while skills are related with the ability of an individual in doing something, styles are about how an individual prefers to do something. Thus, various styles are not good or bad, they are just different (Akbulut, 2006; Duru, 2004).

Thinking process can be defined as turning the things and events in the outer world into symbols. According to another argument, thinking is the mental activity shown to understand the truth (Sünbül, 2004). Thinking style is not defined as a preferred way of something done or thought, but it is defined as a preference in the use of an ability the individual has (Sternberg and Zhang, 2001).

The theory of thinking styles depends on the theory of mental self-management. This theory argues that people manage their daily activities like managing a society and physical activities. Everybody's thinking style is different while taking care of the events which take place. Thinking style can differ according to the necessities of the situation. Thinking styles are in a close relationship with the social environment and they can change depending on the culture, time and situation (Sternberg, 1994; Öner et al., 2016). That is, thinking styles can be developed or changed (Sternberg, 1997; Zhang, 2004).

Thinking style and analyses are so important in bringing out the abilities of athletes and wrestlers (İmamoğlu et al., 2017). It is thought that this study will contribute to find out the thinking styles of wrestlers. Thus, the purpose of this study is to analyze the thinking styles of wrestlers in terms of some variables.

## 2. Material and Method

# 2.1. Subjects

styles.

267 registered male wrestlers participated in the study. In order to find out the demographic characteristics of the wrestlers who participated in the study, "Personal Information Form" developed by the researcher was used. In order to find out the thinking styles of wrestlers, "Rational-Experiential Thinking Styles Inventory", which was developed by Epstein et al. (1996) and adapted into Turkish by Buluş (2003), was used to find out the thinking styles of wrestlers.

# 2.2. Data Collection Tool

# 2.2.1 Rational-Experiential Thinking Styles Inventory (RETSI)

RETSI consists of 31 items and two subscales. One of these subscales measures rational thinking and it is the short version of Need for Cognition scale prepared with 19 items taken from the original Need for Cognition scale (45 items) developed by Cacioppa and Petty (1982). This scale measures individual's levels of liking cognitive activities and participating in these or not liking cognitive activities and avoiding them. The other subscale is Faith in Intuition which consists of 12 items and it measures individuals' levels of depending on their feelings and first impressions in processing information and doing an act. The items in the scale are answered with a 5-likert scoring ranging from completely false (1), partly false (2), neutral (3), partly true (4), completely true (5). Items 1,2,4,5,6,7,9,10,11,13,15,16,18, and 19 are reverse scored. Since all the items of Faith in Intuition are expressed positively, the score interval of RETSI is between 19 and 95, while the score interval of Faith in Intuitions between 12 and 60.

In Buluş's (2003) "Reliability and Validity of Rational-Experiential Thinking Styles Inventory" study, item-total correlations were analyzed and it was found that item 14 in Need for Cognition scale showed a negative association at the level of -.26 and when this item was deleted, alpha value increased significantly ( $\alpha = .78$ ); similarly, a very low item-total correlation of .01 was found for item 17 and when this item was deleted, the alpha level was found to increase to .79. Thus, these two items which disrupted the additivity of the scale were deleted and the alpha value of .79 was accepted which was found as a result of the analysis conducted on 17 of the remaining items. As a result of the analyses conducted, the scale was ready for use with 29 items. Thus, the number of items in the Need for Cognition subscale decreased to 17, while the score interval decreased to 17-85 (Buluş 2003). Higher scores mean higher thinking

Need for Cognition subscale was defined as analytical-rational thinking style, while the Faith in Intuition subscale was defined as rational-experiential thinking style.

# 2.3. Data Analysis

Kolmogorov Smirnov test was used to find out whether the data were normally distributed. Parametric tests were used since the data were normally distributed. In paired comparisons, t test was used in independent groups, while one way ANOVA was used in the comparison of groups more than two.

## 3. Results

	n	Minimum	Maximum	Mean	SD
Need for Cognition (Analytical Rational Thinking)	267	37.00	75.00	54.44	7.36
Faith in Intuition (Experiential thinking style)	267	20.00	58.00	41.16	7.39

## Table 1: Analysis of wrestlers' thinking styles in general

It was found that the wrestlers who participated in the study used rational thinking styles in moderate levels with an average score of 54.44. It was also found that they used intuitional thinking styles in moderate levels with an average score of 41.16.

	Age (year)	n	Mean	SD	р
Need for Cognition (Analytical Rational Thinking)	15-17 (a)	101	54.20	7.42	
	18-20 (b)	89	55.03	6.98	0.655
	21-27 (c)	77	54.09	7.78	
Faith in Intuition (Experiential thinking style)	15-17 (a)	101	41.42	6.97	0.006**
	18-20 (b)	89	39.32	7.30	0.008 °
	21-27 (c)	77	42.94	7.64	0

Table 2: Levels of using thinking styles in terms of age

When the wrestlers' rational thinking style levels were compared in terms of age, no statistically significant difference was found (p>0.05). Statistically significant difference was found between the intuitional thinking style levels of wrestlers in terms of age (p<0.01). It was found that the wrestlers between the ages of 21 and 27 had higher intuitional thinking styles when compared with the wrestlers between the ages of 18 and 20 (p<0.01).

Table 3: High school and university students' levels of using thinking styles

	Education status	n	Mean	SD	р
Need for Cognition (Analytical Rational Thinking)	High school	105	53.99	7.43	0.414
	University	162	54.74	7.33	
Faith in Intuition (Experiential thinking style)	High school	105	41.43	7.19	0.628
	University	162	40.98	7.53	

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As can be seen inTable3, no statistically significant difference was found between high school and university students in terms of rational thinking styles (p>0.05). Similarly, no statistically significant difference was found between high school and university students in terms of intuitional thinking styles (p>0.05).

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	National Team	n	Mean	SD	р	
Need for Cognition (Analytical Rational Thinking)	Yes	116	54.37	7.13	0.879	
	No	151	54.50	7.57		
Faith in Intuition (Experiential thinking style)	Yes	116	40.93	7.19	0.652	
	No	151	41.34	7.55		

Table 4: Levels of using thinking styles in terms of the state of being a national team player

No statistically significant difference was found between rational thinking style levels of wrestlers in terms of the state of being a national team player (p>0.05). Similarly, no statistically significant difference was found between intuitional thinking styles of wrestlers in terms of the state of being a national team player (p>0.05).

	Sports Age (year)	n	Mean	SD	р
Need for Cognition (Analytical Rational Thinking)	<9	59	54.59	6.52	
	10-11	108	53.62	7.56	0.274
	≥12	100	55.26	7.60	
Faith in Intuition (Experiential thinking style)	<9	59	40.57	7.20	
	10-11	108	40.60	7.16	0.264
	≥ 12	100	42.12	7.71	

Table 5: Levels of using thinking styles in terms of sport age

No statistically significant difference was found between rational thinking style and intuitional levels of wrestlers in terms of sport age (p>0.05).

# 4. Discussion and Conclusion

This study was conducted to analyze the thinking styles of wrestlers in terms of different variables. The results of the study showed that the average rational thinking style scores of wrestlers was 54.44, while the average intuitional thinking style scores of wrestlers was 41.16. When the thinking styles scores of the wrestlers were analyzed, it was found that they used both thinking styles in moderate levels. In a study by Adak (2006), it was found that pre-school teachers used both thinking styles moderately.

Thinking style is an information processing method an individual uses consciously or unconsciously in perceiving life, reaching his/her aims and in problem solving. In this sense, "rational thinking" is defined as an individual's information processing style functioning on the level of conscious independent from analytical and verbal preferred emotional influences, while "rational-experiential thinking" is defined as an individual's information processing system functioning as a result of being influenced from automatic, associative, integrative, non-verbal and spontaneous feelings (Buluş, 2000). Thinking style is not a skill, it is more of a preference. Thus, we cannot talk about a style that can be considered as good or bad; however, we can talk about differences. As a result, thinking style can change in time depending on the situation and the problem encountered (Sternberg, 1994). Differences in thinking styles can influence individual or group interactions significantly in all social settings (Buluş, 2000). Thinking styles are organized with a combination of individuals' processes, activities and various characteristics and they are out reflected as thinking styles (Palut, 2003).

When the wrestlers' rational thinking style levels were compared in terms of age, no statistically significant difference was found. When the wrestlers' intuitional thinking style levels were compared in terms of age, it was found that the wrestlers between the ages of 21 and 27 had higher intuitional thinking style levels when compared with wrestlers between the ages of 18 and 20. This result shows that wrestlers between the ages of 21 and 27 have higher levels of faith in their feelings and first impressions in processing information and doing acts. The results of Zhang and Sternberg (2002)'s study are in parallel with the results of our study. Their study shows that teachers adopt different thinking styles in terms of their fields and their professional experiences and also those teachers' thinking styles vary according to their ages (Zang and Sternberg, 2002).

No significant difference was found between high school and university students in terms of rational and intuitional thinking styles. There are also studies which have results not parallel to the results of our study (Tekin and Taşğın 2009; Zhang 2005; Shiloh and Shefer, 2004). Tekin and Taşğın (2009) found a significant difference between the educational status and thinking styles of kick box trainers. It is thought that the difference between the results of our study and the results of the aforementioned studies are caused by the sample group. Wrestlers were used in our study as the sample and the age interval of our sample group was wide (15-27 of age). The purpose of education is to give correct and reliable information to individuals and to guide individuals to make the right decisions in every stage of their lives. Individual differences, social, cultural and economic characteristics of preschool teachers in addition to the fact that the education they receive is not sufficiently varied in giving them the aforementioned purposes can be factors in individuals' getting information partly or not being able to apply the information in real life. This situation is a reason for the expectation of educated individuals' having higher rational thinking levels not coming true (Adak, 2006).

It was found that the athletes' being in a national team athlete did not influence their rational or intuitional thinking styles. Similarly, it was found that rational thinking or intuitional thinking styles of wrestlers did not differ in terms of their sport age or having degrees in competitions. No comparisons were made since there were no studies which analyzed the thinking styles in terms of these variables.

As a conclusion, when the athletes' thinking styles scores were examined, it was found that they used both thinking styles moderately. It was found that age influenced intuitional thinking style, while being in a high school or university student, being in a national team athlete or sport ages were not found to have an influence on thinking skills.

# References

- 1. Adak, A. (2006). Okul öncesi eğitimi öğretmenlerinin fen öğretimine yönelik tutumları ile düşünme stilleri arasındaki ilişkinin incelenmesi. Pamukkale üniversitesi soysal bilimler enstitüsü, İlköğretim Anabilim Dalı, Yüksek Lisans Tezi.
- Akbulut, E. (2006). Pamukkale Üniversitesi Eğitim Fakültesi Müzik Eğitimi Anabilim Dalı öğrencilerinin düşünme stil profilleri çerçevesinde değerlendirilmesi. Ulusal Müzik Eğitimi Sempozyumu Bildirisi, 26-28 Nisan 2006, Pamukkale üniversitesi Eğitim Fakültesi, Denizli.
- Balgamış, E. (2007). Eğitim yöneticilerinin düşünme stilleri ile başa çıkma davranışları arasındaki ilişki. Gaziosmanpaşa Üniversitesi Sosyal Bilimler Enstitüsü Eğitim Bilimleri Anabilim Dalı Eğitim Yönetimi ve Denetimi Bilim Dalı, Yüksek Lisans Tezi, Tokat.
- 4. Buluş, M. (2000). Öğretmen adaylarında yükleme karmaşıklığı, düşünme stilleri ve bilişsel tutarlılık tercihinin bazı psikososyal özellikler ve akademik başarı çerçevesinde incelenmesi. Dokuz Eylül Üniversitesi Eğitim Bilimleri Enstitüsü, Doktora Tezi.
- 5. Buluş, M. (2003). Rasyonel-Yaşantısal Düşünme Stilleri Ölçeği'nin güvenirlik ve geçerliği (Reliability and Validity of Rational-Experiential Thinking Styles Inventory). Ege Eğitim Dergisi, (3)1, 133-138.

- 6. Cacioppa, J.T., Petty, R.E. (1982). The Need for Cognition. Journal of Personality and Social Psychology. 42.
- 7. Çubukçu, Z. (2004). Öğretmen adaylarının düşünme stillerinin öğrenme biçimlerini tercih etmelerindeki etkisi. Sözel bildiri. XIII. Ulusal eğitim bilimleri kurultayı, Malatya.
- 8. Duru, E. (2004). Düşünme Stilleri: Kavramsal ve Kuramsal Çerçeve. Eğitim Araştırmaları, Sayı 14.
- 9. Epstein, S., Rosemary, P., Denes, V.R and Harriet, H. (1996). Individual differences in intuitive experiential and analytical rational thinking styles. Journal of Personality and Social Psychology, 63(4), 553-554.
- 10. İmamoğlu, O., Erkin, A., Mayda, M. H., Öztürk, O., & Yılmaz, A. K. (2017). 12th World Universities Wrestling Championship Free Style Competition Technical Analysis. *European Journal of Physical Education and Sport Science*.
- 11. Öner, S., Pancar, Z., Akbulut, T., Karaman, M. E., & Çınar, V. (2016). Investigation of healty life style behaviors of Turkish wrestling federation coaches.
- 12. Palut, B. (2003). İlköğretim Birinci ve ikinci kademe öğretmenlerinin kişisel ve öğretmen rolündeki düşünme stillerinin incelenmesi, Marmara Üniversitesi Eğitim Bilimleri Enstitüsü, Doktora Tezi, İstanbul.
- 13. Shiloh, S., Sheffer, M.S. (2004). Structure of difficulties in mate-selection decisions and its relationship to rational and intuitive cognitive styles. Personality and individual differences, 37(2), 259-273.
- 14. Sternberg R.J. (1994). Allowing for thinking styles, Educational Leadership, 52(3), 36-40.
- 15. Sternberg, R.J. (1997). Thinking Styles. Cambridge University Press, New York.
- 16. Sternberg, R.J., Zhang, L.F. (2001). Perspectives on Thinking, Learning, and Cognitive Styles. Lawrence Erlbaum Associates, Publishers, London.
- 17. Sünbül, A.M. (2004). Düşünme Stilleri Ölçeğinin geçerlik ve güvenirliği. Eğitim ve Bilim, 29(132), 25-42.
- Tekin, M., Taşğın Ö. (2009). Kick boks antrenörlerinin karar verme ve düşünme stillerinin incelenmesi. Türkiye Kick Boks Federasyonu Spor Bilimleri Dergisi, 2(1):11-27.
- 19. Zhang, L.F. (2005). Validating the theory of mental self-government in a nonacademic setting, personality and individual differences. 38(8), 1915-1925.
- 20. Zhang, L.F., Sternberg, R.J. (2002). Thinking styles and Teacher Characteristic, international Journal of Psychology, 37(1), 3-12, <u>http://www.taylorandfrancis.metapress.com</u> (12.04.2006).

21. Zhang, LF. Thinking Styles: University students' preferred teaching styles and their conceptions of effective teachers, The Journal of Psychology, 2004, 138(3), 233–252. 2004.

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