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DETERMINATION OF PROBLEM SOLVING SKILLS OF ATHLETES PLAYING BASKETBALL IN INFRASTRUCTURE LEAGUES IN CANAKKALE, TURKEY

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Abstract:
This study was conducted with the aim of determining the problem solving skills of infrastructure athletes playing basketball in the local league in the province of Canakkale. A total of 130 athletes (111 male, 19 female) participated as volunteers in the study. The average age of the participants was 12, 76 ± 1, 72 who are trained in the sports clubs in Çanakkale. In the study, personal information form created by the researchers and "Personal Problem Solving Inventory" developed by Tümkaya and Yerlikaya (2009) were used. The scale is a 5-point likert-type measure consisting of 50 items and 5 sub-dimensions (Progressive Negative Approach, Constructive Problem Solving, Self-Disbelief, Taking No Responsibility and Persistent-Perseverant Approach). The answers to the scale items are ranked from "I do not agree at all" to "I completely agree". SPSS-20: 0 package program was used in the analysis of the data. In binary comparisons, t test was used for independent groups and Pearson correlation analysis was used for interrelated research. The results were considered significant at $p < 0.05$ level. According to the results of the study, problem-solving abilities of basketball players were determined, arithmetic means and standard deviations values were found in the sub-dimensions as stated; according to sex, negative attitude towards problem in males (29.47 ± 4.95), in females (28.63±4.03), constructive problem solving was found in males (26.90 ± 5.22), in females (28.42 ± 4.71), lack of self-esteem was found in males (22.35 ± 5.71), females (24.21 ± 6.07), taking no responsibility was found in males

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(29.94±5.93), in females (30.10±6.99), persistent-perseverant approach was observed in males (23.70 ± 5.24), in females (23.63 ± 5.29). There was no significant difference (p>0,05) in problem solving sub-dimensions according to gender. There was no significant relationship between age and problem solving sub-dimensions. As a result; when investigating the problem-solving skills of athletes dealing with the basketball branch, there was no significant relationship between age and sex. In order to determine the problem-solving skills of the players and to develop them with appropriate methods, we believe that it will contribute to out-of-play performance by having the trainees who will provide professional support to coaches and sportsmen in sports.

Keywords: problem solving skills, basketball

1. Introduction

People encounter with various situations in their daily life. The way of solving a problem depends on the individual's personal traits. While some individuals apply effective strategies to solve a problem, the others may be ineffective in problem solving. Individuals need to use problem-solving abilities to be able to build healthy relationships and sustain their lives in an effective and compatible way. In short, problem solving process is defining relationships and the reasons, interpreting and evaluating the options and applying them which means utilizing the intelligence in full potential. (Yüksel, 2008)

Nowadays, having some traits and thinking abilities, which require kindness and delicacy gain importance to be able to overcome the difficulties. In this context, interpersonal problem solving ability is accepted as one of the abilities which need to be supported from the early ages and proceeds throughout the life. (Anlıak and Dinçer, 2005)

The relationship between performance and success in sports, which has been improved positively with the development of technology, is being researched constantly. (1,2,3). Performance is a factor containing many main and sub dimensions and influencing the success in different ways. (3,4). There are various factors affecting the performance and success in each branch of sports. Arranging these factors properly affects the performance and success in a positive way.

Therefore, the relationship between the performance and success is being researched in multi ways. (1,2,3). Utilizing these factors in a limited and insufficient way during the performance causes some problems especially in team sports.

One of these problems is players having difficulties in creating alternatives in variable conditions, even if their physical capacity is sufficient. This situation affects not only the player's individual performance but also the team's performance in a negative way. Solving the problems encountered during the games in an efficient way is important in terms of performance.

A problem is an obstacle appeared against the existing unified efforts to be able to reach a goal. (Bingham, 1998) Problem solving is a cognitive and behavioral process starts with defining the problem and continues until finding a solution to the problem. (Öğülmüş, 2001)

The situation described as; detecting, defining and solving the problem, is a process to find solutions for the challenges encountered in attaining the goal (5). In this process, the players who have high problem solving skills are able to solve the problems in accordance with the situation. However, when the research studies are analyzed it is observed that the performance factors (build, technique, tactics, motoric abilities) investigated in basketball branch are limited (3). Detecting the problems, perceiving and solving them properly during the trainings will improve the team's performance.

The necessity of specifying and improving the problem solving skills of basketball players apart from their technical, tactic and motoric abilities arises in today's basketball world. In line with this necessity, this research study has been done to investigate the problem solving skills of the basketball players who play in youth setup in Canakkale province.

The objective of the research study is to supply support in planning process to improve the problem solving skills of basketball player who are in developmental age.

2. Material and Methods

This study is a descriptive study in a comparative relational survey model in which interpersonal problem solving skills are examined.

A total of 130 athletes, aged between 10-15 and the average of which is 12,76 ± 1,72 years, who reside in Canakkale province, participated in the study. 111 (85.33%) of the participants were male and 19 (14.61%) were females.

In the study, personal information form created by the researchers and "Personal Problem Solving Inventory" developed by Tümkaya and Yerlikaya (2009) were used.

The scale is a 5-point likert-type measure consisting of 50 items and 5 sub-dimensions (Progressive Negative Approach, Constructive Problem Solving, Self-

Disbelief, Taking No Responsibility and Persistent-Perseverant Approach). The answers to the scale items are ranked from "I do not agree at all" to "I completely agree".

SPSS-20:0 package program was used in the analysis of the data. In binary comparisons, t test was used for independent groups and Pearson correlation analysis was used for interrelated research.

3. Results and Discussion

As a result of analysis, there is no defined relationship between the gender and the problem solving skills of the basketball players in sub-dimensions of: Having a negative approach to the problem, Constructive problem solving, Being nonassertive, Not taking responsibilities, Persistent-tenacious approach to the problem. In addition to this, it has been analyzed that there is no meaningful relationship between the age and the problem solving skills in the same sub-dimensions.

According to, Taylan (1990), Terzi (2000), Serin (2001), Saracaoğlu, Silkü ve Öztürk (2002), Serin, Saracalğolu and Bozkurt (2002), Güler (2006), Genç and Kalafat (2007), Demirtaş and Dönmez (2008), Yüksel (2008) and Tavlı (2009) there is no discrepancy between the genders in problem solving skills.

According to, Bozkurt, Serin and Erman (2003), Tavlı (2009) ile Özğül (2009) there is no discrepancy between the ages in problem solving skills. These research studies' results are parallel to this study.

Onursal and Moralı's research study "Physical education and sports department students' perception on communication and problem solving skills" reveals that there is a significant change in teacher candidates' perceptions on problem solving skills concerning their grade level and gender.

Mızrak and Katkat (2003, in their study investigating whether the problem solving skills change according to the grade level of students, have found out that the problem solving skills improve in higher grades except the 1st and 2nd grades.

Pehlivan and Konukman, in their study "Comparing the physical education and sports teachers and subject matter teachers' problem solving skills", could not find any significant difference between physical education teachers and the other subjects teachers.

According to the findings of Şah's "Analyzing the differences between the physically handicapped people doing and not doing physical exercises" there is a significant change in problem solving skills of handicapped individuals doing and not doing physical exercises.

It has been also determined that, along with their physical exercises habits, their employment status and level of education and income are the factors affecting the problem solving skills.

According to İnce and Şen's study "Defining the problem solving skills of the basketball players in displacement league of Adana" (2006), there is no significant statistical difference between the players' problem solving skills according to their age or position.

4. Conclusion and Recommendations

As a result, there is no meaningful relationship between the basketball players' performance and their ages and genders. We believe that, to be able to define the players' problem solving skills and improve these skills, having an instructor who can support the trainers and sportsmen in sports clubs will contribute to their performance in and out of the game.

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Appendix

A. Figures and Tables

Table 1: Problems of Participants' Problem-Solving Skills

	N	Min.	Max.	X	SS
Age	130	10,00	15,00	12,76	1,72
POY		19,00	44,00	29,35	4,82
YPC		15,00	39,00	27,12	5,16
KG		13,00	40,00	22,62	5,78
SA		17,00	42,00	29,96	6,11
ISY		11,00	42,00	23,69	5,22
Total		92,00	172,00	132,76	18,84

Table 2: The Relationship Between Age and Problem-Solving Scores

		Age	POY	YPC	KG	SA	ISY
Age	r	1	,077	-,047	-,045	-,014	,049
	P		,384	,593	,608	,875	,581
	N	130	130	130	130	130	130

Table 3: Comparison of Problem Solving Skills by Gender

	Gender	N	X	SS	P
POY	Men	111	29,47	4,95	,482
	Women	19	28,63	4,03	
YPC	Men	111	26,90	5,22	,237
	Women	19	28,42	4,71	
KG	Men	111	22,35	5,71	,197
	Women	19	24,21	6,07	
SA	Men	111	29,94	5,98	,917
	Women	19	30,10	6,99	
ISY	Men	111	23,70	5,24	,957
	Women	19	23,63	5,29	
Total	Men	111	132,37	18,64	,577
	Women	19	135,00	20,39	

According to the results of the study, problem-solving abilities of basketball players were determined, arithmetic means and standard deviations values were found in the sub-dimensions as stated; according to sex, negative attitude towards problem in males (29.47 ± 4.95), in females (28.63±4.03), constructive problem solving was found in males (26.90 ± 5.22), in females (28.42 ± 4.71), lack of self-esteem was found in males (22.35 ± 5.71), females (24.21 ± 6.07), taking no responsibility was found in males (29.94±5.93), in females (30.10±6.99), persistent-perseverant approach was observed in males (23.70 ± 5.24), in females (23.63 ± 5.29). There was no significant difference (p>0,05) in problem solving sub-dimensions according to gender. There was no significant relationship between age and problem solving sub-dimensions.