

## INVESTIGATION OF PROBLEM SOLVING SKILLS IN 13-15 YEARS OLD MALE BASKETBALL PLAYERS IN TERMS OF SEVERAL VARIABLES

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### ABSTRACT

**PURPOSE.** The aim of this study was to determine problem solving skills of 13-15 years old male basketball players who are the candidates for the national team and to investigate the differences in terms of personal variables.

**METHODS.** In this study; 102 athletes who were selected from 3400 (candidates for the national team) athletes attended voluntarily in Turkey.

In this research; "Problem Solving Inventory" which was improved by Heppner ve Peterson (1982) for determine to problem-solving skills and 'personal information form', to be used as a data collection.

In the analysis of data, the percentage and frequency values by taking the t-test and one-way analysis of variance (ANOVA) was used and  $p < 0.05$  significance level between.

**RESULTS.** According to sports in the variable "self-confident approach", according to family income variable "estimator approach, self-confident approach and planned approach" is being determined, father education level variable according to the "evaluator approaches and self-confident approach", according to the mother's education level variable "estimator approach and self-confident approach" were found. Other lower wage scales, according to the variable to get paid from clubs, "estimator approach", and ( $p < 0.05$ ) significant differences were found.

**CONCLUSIONS.** In conclusion, problem-solving skills of basketball according to the general literature has been found to be moderate. Also in the results, problem solving subscale of the property of their mean scores differ by age and location variables have been identified.

**KEY WORDS:** Problem solving , basketball, athlete

### INTRODUCTION AND AIM

Starting from the time of birth, humans try to deal with the problems waiting to be solved such as eating, protection and enabling the continuity of the generation. With the social structure, which continuously develops and becomes complicated, development of the technology and varying needs, the humans begin to face gradually increasing and difficult problems.

A problem refers to the barrier in front of the existing powers an individual collected to achieve a certain objective (A. Bingham, 1998). According to D. Cüceloğlu, (1991), problem is a conflict situation where an individual encounters a frustration in achieving a goal (D. Cüceloğlu, 1991).

A situation which is not considered as a problem for an individual can be considered as a problem for another. Human life becomes meaningful with the problems and solving these problems (A. Üstün and B. Bozkurt, 2003)

Problem solving is the process of overcoming the difficulties encountered while achieving a goal. It is a skill that should be learnt or possessed; it also should be continuously developed (A. Bingham, 1998). When an individual encounters a difficulty or a condition he/she has to overcome, he/she activates all of the sources he/she has and reviews his/her previous information to obtain some hints and ideas

to solve the problem. The success of a person in problem solving depends on his/her problem solving skill (M. Ağır, 2007). Problem solving skill is an important skill in life which influences all parts of our lives; it is involved in all activities from simple ones to complicated ones. Thanks to the problem solving skills he/she acquired, an individual is able to lead a positive or negative life with his/her correct or wrong decisions (D. Gülşen, 2008). A human is a whole with his/her physical and psychological entity. Previous studies revealed that the people who were able to establish proper relationships between their physical and psychological aspects were successful in problem solving (E. Greenberger et al., 1971; P.P. Heppner et al., 1985; P.P. Heppner et al., 1987. A.M. Nezu, 1985; C.J. Clark, 2002; M. Mc Murran, 2007). Sport is an important factor in establishing a proper relationship between the physical and psychological entity. Sport means creating an environment of success which would eliminate the problems and disagreement with the body (M. Volkamer, 2009). Either one of environmental or psychological factors have a higher or lower role depending on the circumstances, however none of these factors cause a success or failure in sports alone (S.S. Gürçay, 1998). It can be suggested that an athlete who can make right decisions and make these decisions in the shortest time has an advantage of achieving a success in sports. In conclusion, problem solving

skills of an athlete is considered as an important factor in achievement.

Some of the problems the individuals face can be solved by simple procedures and actions; some of them can be solved by an intensive thinking and some of them can be solved with the abilities they have (D. Gülşen, 2008). It can be suggested that this is also valid for the athletes. The values and behaviors, type of thinking and abilities of the students in physical education and sports have an important role in problem solving. On the pitch, sports hall, ring or mat, an athlete should be able to take a position and move according to the position of the rival player and to the positions and moves of his/her teammates.

In light of this information, the aim of this study was to determine problem solving skills of 13-15 years old male basketball players who are the candidates for the national team and to investigate the differences in terms of personal variables.

## MATERIAL AND METHOD

A total of 102 athletes selected from 81 provinces of Turkey who were candidates for the national team volunteered to take part in the study.

The study used Problem Solving Inventory developed by Heppner and Peterson (1982). The inventory was adapted into Turkish by Şahin, Şahin and Heppner (1993) (P.P. Heppner and C. Peterson, 1982; N. Şahin et al., 1993). The inventory consisted 35 items in 6-point Likert type scale. While responding the questions, the participants marked each item according to the frequency specified in the items.

Statements in 6-point Likert-type inventory: "I always act like this," "I very often act like this," "I often act like this," "I sometimes act like this", "I rarely act like this," "I never act like this". One part of the items consists positive statements; one part of the items consists negative statements. The scale gives total scores and the scores for sub-scales. The responds are given 1-6 scores. Items 9, 22 and 29 are excluded from the scoring. The scoring is calculated over 32 items. The items 1, 2, 3, 4, 11, 13, 14, 15, 17, 21, 25, 26, 30 and 34 are inversely scores. Range of score from the inventory is 32-192.

High scores received from the scale indicate that the individual perceives himself/herself inadequate in problem solving. Receiving lower total scores is considered as a positive problem solving perception of the individual. In scoring of the sub-scales, as the scores received from the sub-scales measuring positive-desired problem-solving types decreased (thinking approach, self-confident approach, evaluative approach, planned approach) it was considered that the related types of approaches were used more frequently. On the other hand, as the scores received from the sub-scales measuring negative-ineffective problem solving skills decreased (impetuous approach and avoidant approach ) it was considered that the related types of approach were used less frequently (D. Ferah, 2000).

## RESULTS

Table 1 indicates that of the group 27 (26.5%) were 13 years old, 64 (62.7%) were 14 years old, 11 (10.8%) were 15 years old. Of the group, 10 (9.8%) were playing basketball for 1-2 years; 32 (60.8%) were playing basketball for 3-5 years; 30 (29,4%) were playing basketball for 6-8 years. Of the group, 20 (19.6%) had a family income of 300-1000 \$; 48 (47.1%) had a family income of 1000-2000 \$; 23 (22.5%) had a family income of 2000-3000 \$ and 11 (10.8%) had a family income of higher than 3000 \$. Of the participants the fathers of 15 (14.7%) were primary school graduates; the fathers of 46 (45.1%) were high school graduates and the fathers of 41 (30.4%) were university graduates. Of the participants the mothers of 30 (29.4%) were primary school graduates, the mothers of 41 (40.2%) were high school graduates and the mothers of 31 (30.4%) were university graduates. Of the group 17 (16.7%) reported that they were paid by their clubs, 85 (83.3%) reported that they are not paid by their clubs. When the position distribution of the group was analyzed, it was observed that 18 (17.6%) were guards, 29 (28.4%) were forwards players and 55 (53.9%) were Post-Pivot.

**Table 1. Demographic Data of the Study Group**

Değişkenler		Numeral	%
Age	13	27	26,5
	14	64	62,7
	15	11	10,8
Sport Year	1-2	10	9,8
	3-5	62	60,8
	6-8	30	29,4
Family Income (Dollars)	300-1000	20	19,6
	1000-2000	48	47,1
	2000-3000	23	22,5
	3000+	11	10,8
Father-Education	Primary School	15	14,7
	High School	46	45,1
	Universty	41	40,2
Mother-Education	primary school	30	29,4
	High School	41	40,2
	Universty	31	30,4
Income	Yes	17	16,7
	No	85	83,3
Position	Guard	18	17,6
	Forvet	29	28,4
	Post-Pivot	55	53,9

**Table 2. ANOVA Test Results of PSI Sub-Dimension Scores of the Basketball Players according to the Age Variable**

	Age	N	$\bar{X}$	s	Variance Resource	ST	sd	SA	F	p	Different
Impetuous Approach	13	27	30,48	6,38	Intergroup	5,77	2	2,88	,074	,929	
	14	64	30,75	6,38	In-group	3878,74	99	39,17			
	15	11	30,00	6,43	Total	3884,52	101				
Thinking Approach	13	27	13,70	4,75	Intergroup	,86	2	,43	,020	,980	
	14	64	13,70	4,75	In-group	2120,98	99	21,42			
	15	11	14,00	4,19	Total	2121,85	101				
Avoidant Approach	13	27	10,11	4,93	Intergroup	54,89	2	27,44	1,43	,243	
	14	64	11,56	4,20	In-group	1892,96	99	19,12			
	15	11	12,36	3,85	Total	1947,85	101				
Evaluative Approach	13	27	8,40	3,54	Intergroup	8,62	2	4,31	,467	,628	
	14	64	8,17	2,89	In-group	914,17	99	9,23			
	15	11	7,36	2,41	Total	922,79	101				
Self-Confident Approach	13	27	17,88	6,18	Intergroup	35,96	2	17,98	,502	,607	
	14	64	18,98	5,66	In-group	3547,28	99	35,83			
	15	11	19,81	7,30	Total	3583,25	101				
Planned Approach	13	27	10,00	4,04	Intergroup	34,29	2	17,14	1,169	,315	
	14	64	10,51	3,74	In-group	1452,53	99	14,67			
	15	11	8,63	3,80	Total	1486,82	101				

Significant at \*p= 0,05 level

As indicated in Table 2, ANOVA test results did not significantly vary for each sub-dimension according to age variable of the basketball players.

**Table 3. ANOVA Test Results of PSI Sub-Dimension Scores of the Basketball Players according to the Sport Year Variable**

	Group	N	$\bar{X}$	s	Variance Resource	ST	sd	SA	F	p	Different
Impetuous Approach	1	10	31,60	3,56	Inter-group	77,65	2	38,82	1,010	,368	
	2	62	31,08	6,59	In-group	3806,86	99	38,45			
	3	30	29,26	5,98	Total	3884,52	101				
Thinking Approach	1	10	14,10	4,20	Inter-group	13,931	2	6,96	,327	,722	
	2	62	13,95	4,64	In-group	2107,92	99	21,29			
	3	30	13,16	4,66	Total	2121,85	101				
Avoidant Approach	1	10	10,90	4,79	Inter-group	3,809	2	1,90	,097	,908	
	2	62	11,19	4,59	In-group	1944,04	99	19,63			
	3	30	11,53	3,92	Total	1947,85	101				
Evaluative Approach	1	10	7,50	2,91	Inter-group	18,14	2	9,07	,993	,374	
	2	62	8,48	2,98	In-group	904,65	99	9,13			
	3	30	7,66	3,13	Total	922,79	101				
Self-Confident Approach	1	10	19,90	6,50	Inter-group	221,51	2	110,75	3,262	,042	1-2 1-3
	2	62	18,75	5,79	In-group	3361,73	99	33,95			
	3	30	17,46	5,69	Total	3583,25	101				
Planned Approach	1	10	10,90	3,98	Inter-group	66,17	2	33,08	2,306	,105	
	2	62	10,66	3,66	In-group	1420,65	99	14,35			
	3	30	8,93	3,97	Total	1486,82	101				

Significant at \*p= 0,05 level

Groups: 1: 1-3, 2: 4-6, 3: 7\*

Table 3 indicates that “Self-Confident Approach” sub-dimension scores of the basketball players significantly vary according to sport year variable [F<sub>(2,99)</sub> = 3,262; p<.05]. It was found that the scores of the basketball playing who were doing sport for 1-3 years

( $\bar{X}$  = 12,90) were lower those of the basketball players who were doing basketball for 4-6 years ( $\bar{X}$  = 18,75) and lower than those of the basketball players who were doing sport for more than 7 years ( $\bar{X}$  = 17,46).

**Table 4. ANOVA Test Result of the PSI Sub-Dimensions of the Basketball Players according to Family Income Status Variable**

	Grup	N	$\bar{X}$	s	Variance Resource	ST	sd	SA	F	p	Different
Impetuous Approach	1	20	31,40	6,21	Inter-group	91,05	3	30,35	,784	,506	
	2	48	31,16	6,78	In-group	3793,46	98	38,70			
	3	23	29,00	5,91	Total	3884,52	101				
	4	11	30,00	3,60							
Thinking Approach	1	20	12,90	4,71	Inter-group	135,89	3	45,29	2,235	,089	
	2	48	13,79	4,49	In-group	1985,96	98	20,26			
	3	23	12,86	4,90	Total	2121,85	101				
	4	11	16,81	2,96							
Avoidant Approach	1	20	12,85	4,31	Inter-group	71,90	3	23,96	1,252	,295	
	2	48	10,70	4,69	In-group	1875,95	98	19,14			
	3	23	10,82	3,67	Total	1947,85	101				
	4	11	11,72	4,36							
Evaluative Approach	1	20	10,00	3,79	Inter-group	142,26	3	47,42	5,954	,001	1-2
	2	48	7,20	2,38	In-group	780,53	98	7,96			
	3	23	7,73	2,63	Total	922,79	101				
	4	11	7,72	2,53							
Self-Confident Approach	1	20	21,90	6,05	Inter-group	363,57	3	121,19	3,689	,015	1-2
	2	48	17,41	5,71	In-group	3219,68	98	32,85			
	3	23	17,82	5,38	Total	3583,25	101				
	4	11	16,09	5,20							
Planned Approach	1	20	11,60	3,84	Inter-group	153,73	3	51,24	3,767	,013	1-3 1-4
	2	48	9,54	3,26	In-group	1333,08	98	13,60			
	3	23	9,08	3,84	Total	1486,82	101				
	4	11	8,63	3,20							

Significant at \*p= 0,05 level

Groups: 1: Low, 2: Moderate, 3: High, 4: Very High

As indicated in Table 4, “Evaluative Approach” sub-dimension scores of the basketball players

significantly varies according to the family income level variable [F<sub>(3,98)</sub> = 5,954; p<.05]. It was found that

the scores of the basketball players with low income level ( $\bar{x} = 10,00$ ) were higher than those who had a moderate family income level ( $\bar{x} = 7,20$ ).

There was a significant relationship between the “Self-Confident Approach” sub-dimension scores of the basketball players according to family income level variable [ $F_{(3,98)} = 3,689$ ;  $p < .05$ ]. It was found that the scores of the basketball players with a low family

income level ( $\bar{x} = 21,90$ ) were higher than those having moderate ( $\bar{x} = 17,41$ ) family income level.

“Planned Approach” sub-dimension scores of the basketball players significantly varied according to family income [ $F_{(3,98)} = 3,767$ ;  $p < .05$ ]. It was found that the scores of the basketball players with low income level ( $\bar{x} = 11,60$ ) were higher than those of the basketball players with high ( $\bar{x} = 9,08$ ) and very high ( $\bar{x} = 8,63$ ) income level.

**Table 5: ANOVA Test Results of PSI Sub-Dimension Scores of the Basketball Players according to the Variable of Father’s Educational Level**

	Grup	N	$\bar{X}$	s	Variance Resource	ST	sd	SA	F	p	Different
Impetuous Approach	1	30	30,43	5,43	Intergroup	85,84	2	42,92	1,119	,331	
	2	41	31,60	7,12	In-group	3798,67	99	38,37			
	3	31	29,41	5,51	Total	3884,52	101				
Thinking Approach	1	30	14,20	4,64	Intergroup	34,65	2	17,32	,822	,443	
	2	41	13,02	4,44	In-group	2087,19	99	21,08			
	3	31	12,22	4,73	Total	2121,85	101				
Avoidant Approach	1	30	11,73	4,01	Intergroup	20,68	2	10,34	,531	,590	
	2	41	11,41	4,70	In-group	1927,17	99	19,46			
	3	31	10,61	4,37	Total	1947,85	101				
Evaluative Approach	1	30	9,56	2,82	Intergroup	86,94	2	43,47	5,149	,007	1-2 1-3
	2	41	7,43	3,04	In-group	835,85	99	8,44			
	3	31	7,70	2,79	Total	922,79	101				
Self-Confident Approach	1	30	21,30	5,70	Intergroup	269,00	2	134,50	4,018	,021	1-2
	2	41	17,75	5,80	In-group	3314,24	99	33,47			
	3	31	17,70	5,83	Total	3583,25	101				
Planned Approach	1	30	11,50	3,49	Intergroup	78,66	2	39,33	2,765	,068	
	2	41	9,41	3,69	In-group	1408,16	99	14,22			
	3	31	9,90	4,11	Total	1486,82	101				

Data in Table 5 indicated that “Evaluative Approach” sub-score scores of the basketball players significantly varied according to the variable of father’s educational level [ $F_{(2,99)} = 5,149$ ;  $p < .05$ ].

It was found that the scores of the basketball players whose fathers were primary school graduates ( $\bar{x} = 9,56$ ) were higher than those of the basketball players whose fathers were high school graduates ( $\bar{x} = 7,43$ ) and university graduates ( $\bar{x} = 7,70$ ).

“Self-Confident Approach” sub-dimension scores of the basketball players significantly varies according to the variable of father’s education [ $F_{(2,99)} = 4,018$ ;  $p < .05$ ]. It was found that the score of the basketball players who mothers were primary school graduates ( $\bar{x} = 21,30$ ) were higher than those whose mothers were university graduates ( $\bar{x} = 17,70$ ).

**Table 6: ANOVA Test Results of PSI Sub-Dimensions of the Basketball Players according to the Variable of Mother’s Educational Status**

	Group	N	$\bar{X}$	s	Variance Resource	ST	sd	SA	F	p	Different
Impetuous Approach	1	15	31,80	6,37	Intergroup	140,83	2	70,41	1,862	,161	
	2	46	31,47	6,23	In-group	3743,68	99	37,81			
	3	41	29,17	5,97	Total	3884,52	101				
Thinking Approach	1	15	15,20	2,90	Intergroup	38,39	2	19,19	,912	,405	
	2	46	13,56	5,33	In-group	2083,46	99	21,04			
	3	41	13,39	4,14	Total	2121,85	101				
Avoidant Approach	1	15	13,06	3,34	Intergroup	93,56	2	46,78	2,498	,087	
	2	46	11,56	4,48	In-group	1854,28	99	18,73			
	3	41	10,26	4,44	Total	1947,85	101				
Evaluative Approach	1	15	9,40	2,92	Intergroup	78,36	2	39,18	4,594	,012	1-3
	2	46	8,65	3,33	In-group	844,42	99	8,53			
	3	41	7,12	2,36	Total	922,79	101				
Self-Confident Approach	1	15	22,13	6,42	Intergroup	383,15	2	191,57	5,927	,004	1-3
	2	46	19,58	5,73	In-group	3200,10	99	32,32			
	3	41	16,65	5,34	Total	3583,25	101				
Planned Approach	1	15	11,66	4,63	Intergroup	79,74	2	39,87	2,805	,065	
	2	46	10,56	3,39	In-group	1407,07	99	14,21			
	3	41	9,19	3,82	Total	1486,82	101				

Significant at \*p= 0,05 level **Groups: 1:** Primary School, **2:** High School , **3:** University

As indicated Table 6, “Evaluative Approach” sub-dimension scores of the basketball players significantly varied according to the variable of mother’s education [ $F_{(2,99)}= 4,594$ ;  $p<,05$ ]. It was found that the scores of the basketball players whose mothers were primary school graduates ( $\bar{x} = 9,40$ ) were higher than those whose mothers were university graduates ( $\bar{x} = 7,12$ ).

“Self-Confident Approach” sub-dimension scores of the basketball players significantly varied according to the variable of mother’s education [ $F_{(2,99)}= 3,689$ ;  $p<,05$ ]. It was found that the scores of the basketball players whose mothers were primary school graduates ( $\bar{x} = 22,13$ ) were higher than those whose mothers were university graduates ( $\bar{x} = 16,65$ ).

**Table 7: t-Test Results of the PSI Sub-Dimension Scores of the Basketball Players according to the Variable of Receiving Economic Support from their Clubs**

Subdimensions	Economic Support	N	$\bar{X}$	S	sd	t	p
Impetuous Approach	Yes	17	30,64	6,76	100	,036	,972
	No	85	30,58	6,12			
Thinking Approach	Yes	17	12,94	5,93	100	-,781	,437
	No	85	13,89	4,29			
Avoidant Approach	Yes	17	11,17	4,58	100	-,090	,928
	No	85	11,28	4,37			
Evaluative Approach	Yes	17	10,00	3,10	100	2,866	,005*
	No	85	7,77	2,88			
Self-Confident Approach	Yes	17	20,23	4,93	100	1,101	,273
	No	85	18,49	6,12			
Planned Approach	Yes	17	11,11	4,24	100	1,109	,270
	No	85	9,98	3,74			

As indicated in Table 7, “Evaluative Approach” sub-dimension scores of the players significantly vary according to the variable of receiving economic support from their clubs [ $t_{(100)}= 2,866$ ;  $p<,05$ ].

It was found that the scores of the basketball players who were paid by their clubs ( $\bar{x} = 10,00$ ) were higher than those who were not paid by their clubs ( $\bar{x} = 7,77$ ).

**Table 8: ANOVA Test Results of the PSI Sub-Dimension Scores of the Basketball Players according to the Variable of Positions**

	Group	N	$\bar{X}$	s	Variance Resource	ST	sd	SA	F	p	Different
Impetuous Approach	1	18	29,77	5,34	Intergroup	29,14	2	14,57	,374	,689	
	2	29	31,34	5,01	In-group	3855,37	99	38,94			
	3	55	30,47	7,02	Total	3884,52	101				
Thinking Approach	1	18	13,83	4,73	Intergroup	6,91	2	3,45	,162	,851	
	2	29	14,10	4,81	In-group	2114,93	99	21,36			
	3	55	13,50	4,48	Total	2121,85	101				
Avoidant Approach	1	18	10,00	4,18	Intergroup	47,67	2	23,83	1,242	,293	
	2	29	11,00	3,96	In-group	1900,18	99	19,19			
	3	55	11,81	4,63	Total	1947,85	101				
Evaluative Approach	1	18	8,72	2,27	Intergroup	13,24	2	6,62	,721	,489	
	2	29	7,65	2,76	In-group	909,54	99	9,18			
	3	55	8,21	3,35	Total	922,79	101				
Self-Confident Approach	1	18	17,66	5,59	Intergroup	89,29	2	44,64	1,265	,287	
	2	29	20,20	4,96	In-group	3493,95	99	35,29			
	3	55	18,40	6,48	Total	3583,25	101				
Planned Approach	1	18	10,38	3,97	Intergroup	3,42	2	1,71	,114	,892	
	2	29	9,89	3,69	In-group	1483,40	99	14,98			
	3	55	10,25	3,92	Total	1486,82	101				

Significant at \*p= 0,05 level

**Groups: 1:** Guard **2:** Forward, **3:** Post-Pivot

As indicated in Table 8, ANOVA Test results revealed that the scores of the basketball players did not significantly vary according to the variable of the positions for each sub-dimension of the inventory (PSI).

## DISCUSSION AND CONCLUSION

This study aimed to determine problem solving skills of the 13-15 years old basketball players and to identify whether the problem solving skills of the players varied according to the variables of age, sport year, family income, educational status of the

parents, receiving economic support from the club and positions they play.

There was no significant difference between the problem solving sub-dimension scores of the basketball players according to age variable (Table 2;  $p > .05$ ). It can be suggested that the ages of the basketball players did not affect their problem solving skills and that when the players face a problem they exhibited a similar approach. S. Taylan (1990), S. Çam (1995), A. Yurttaş and A. Yetkin (2001), T. Tanrıkulu (2002), G. İnce and C. Şen (2006), H.S. Çağlayan (2007) carried out studies in different groups and found no significant difference between problem solving skills and age variable. These findings supports the findings of the present study (S. Taylan, 1990; S. Çam, 1995; A. Yurttaş and A. Yetkin, 2001; T. Tanrıkulu, 2002; G. İnce and C. Şen (2006), H.S. Çağlayan, 2007).

There was a significant difference in terms of the self-confident approach sub-dimension of the sport year variable of the basketball players (Table 3;  $p < .05$ ). Self-confidence in problem solving is related to the individual's perception of himself/herself as adequate (D. Gülsen, 2008). In this case, it can be suggested that as the time of doing sport and seniority level increased, the basketball players showed a self-confident problem solving behavior. The findings of H. Izgar (2004), H. Germi and H. Sunay (2006), D. Gülşen (2008), M. Efe et al. (2008), H. Demirtaş and D. Dönmez (2008) on different groups support the findings of the present study ( H. Izgar, 2004; H. Germi and H. Sunay, 2006; D. Gülşen 2008; M. Efe et al., 2008; H. Demirtaş and B. Dönmez, 2008).

There was a significant difference between the evaluative approach and self-confident approach sub-dimensions of the basketball players according to family income level (Table 4;  $p < .05$ ). This finding reveals that the basketball players with a high family income had a calmer attitude towards the problems; that they made evaluations about solving the problem; they thought on the results and had a self-confident approach. Income level of the family allows for different life areas for the children. In families with low income level, the conditions to support development of the children might not be provided. On the other hand, a wide range of environmental possibilities the families with high income level offer to their children encourage the children to think and act on these possibilities. And finally, when these children face a problem, they will be able to easily reach a solution by producing different ideas. The findings of M.B. Shure and G. Spivack (1982), Z. Kasap (1994), M.B. Kennedy (1998), Ş. Terzi (2003) H.S. Çağlayan et al. (2000), E. İsrail (2003) on different groups support the findings of the present study (M.B. Shure and G. Spivack 1982; Z. Kasap, 1994; M.B. Kennedy, 1998; Ş. Terzi, 2000; H.S. Çağlayan et al., 2000; E. İsrail, 2003).

There was a significant difference between the evaluative approach and self-confident approach sub-dimension of the basketballs according to the variable

of mother's and father's educational level (Table 5-6;  $p < .05$ ). This finding indicates that the children of the parents with a high educational level adopt an evaluative and self-confident manner towards the problems. Mothers and fathers are important role models for the children. A child learns appropriate behaviors by observing and mimicking them ( H. Bacanlı, 2005). Parent's attitudes and offering adequate support helps the children to grow up as a self-confident and extraverted personality. Education also has a great contribution in exhibiting appropriate behaviors in the family. In conclusion, it can be stated that the education of the parents who serve as a model for the problem solving approaches, have an influence on the problem solving skills of the children. The findings of S. Tümkaya and A. İflazoğlu (2000), H. Saygılı (2000), E. Eroğlu (2001), S. Terzi (2003), A. Gültekin (2006), H. Demirtaş and B. Dönmez (2008), E.O. Karabulut (2009) on different groups support the findings of the present study (S. Tümkaya and A. İflazoğlu, 2000; H. Saygılı 2000; E. Eroğlu, 2001; Ş. Terzi, 2003; A. Gültekin, 2006; H. Demirtaş and B. Dönmez, 2008; E.O. Karabulut 2009).

There was a significant difference in evaluative approach sub-dimension according to the variable of receiving economic support from their clubs (Table 7;  $p < .05$ ). Based on this finding, it can be suggested that the basketball players who were receiving economic support from the club produced solutions for the problems they encounter without thinking properly; they produce solutions without evaluating the results and that having financial gain have an effect on this attitude.

There was no significant difference in the sub-dimension of the inventory according to the variable of position where the basketball players play (Table 8;  $p > .05$ ). Based on this finding it can be suggested that, since basketball is a team-game and the athletes have a team spirit, they show the same approach when they encounter problems. The findings of G. İnce and C. Şen (2006), D. Gülşen (2008) on different groups support the findings of the present study (G. İnce and C. Şen, 2006; D. Gülşen, 2008).

In light of these findings, the following suggestions were presented:

- Instead of preventing the children in sports, activities can be organized to encouraging the children for sports.
- Activities can be organized for the families, athletes, trainers and general society to enhance problem solving skills in social life and in sports.
- Considering the importance of psychological preparation in sports, the activities of the sport psychologists can be enhanced in sport clubs.
- Considering that there can be differences between the problem solving skills of the basketball players, the athletes from other sports and non-athletic young people, similar studies can be carried out on these groups.

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