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July, 2015

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# Analysis Of Attitude Levels And Self-Respect Of Boys, Aged Between 12-18 Receiving Service From Children And Youth Centers, Towards Physical Education And Sports Lesson

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**Abstract:** This research aims to analyze the attitude levels of children aged between 12-18 receiving service from Children and Youth Centers affiliated to the Istanbul Provincial Directorate of Family and Social Policies towards physical education and sports lesson and their self-respect.

Research population is composed of a total of 151 children from randomly selected three service centers out of 5 centers which carry out the activities under the Istanbul Provincial Directorate of Family and Social Policies. As the data collection tool, "Physical Education Lesson Attitude Scale for Children" (BEDTÖ) developed by Sherrill and Toulmin (1977) and adapted into Turkish by Özer and Aktop (2003), and Self-Respect Scale developed by Arıcak (1999) have been used.

According to the statistical results regarding physical education attitude scale, it has been observed that significant differentiation exists in terms of the variables of doing exercise and age. When the averages of self-respect scale are considered, it has been indicated that significant differentiation exists in variables of doing exercise and age.

**Key Words:** Physical education, Sports and attitude, Self-respect.

## INTRODUCTION

Attitudes are sensory factors shaping the behaviors of individuals. They also affect the direction and degree of individual's behavior. Studies conducted on education environment in recent years put forth that the attitudes of students towards lesson, material and teacher affect their success in relevant lesson (Hünük, 2006). These attitudes also develop positive attitudes towards social institutions, rules and values; and develop social perspectives (Ercan, 1998). While affective dimension plays the leading role in formation of attitudes (Feldman, 1996, Oppenheim, 1966), attitudes are seen to have the characteristics of being important predictors in transformation of affective dimensions into behaviors. Attitudes get shape through genetic ways in addition to mere exposure to an action and object, direct personal experience and learning (Horowitz and Bordens, 1995) (Quoted by Feldman, 1996: 605). In other words, attitude is a fact obtained via learning, directing the behaviors of individuals and leading to bias in decision-making process (Ülgen, 1995: 97). According to functional theories, individuals can develop positive attitudes towards objects appropriate for their needs. As per this view, if an individual's attitudes towards an object are positive, it means that this object meets the needs (Erden, 1995: 100). Attitude in physical education and sports refers to the whole regular and methodical work performed with the purpose of ensuring the physical, mental and spiritual development of individuals, preparing them for daily life and conditions of working life, and strengthening the emotions of national awareness and citizenship (Kuru, 2000:1). In other words, developing attitude towards physical education and sports is an integral part of general education and appears as works that aim physical, spiritual, affective and social development of individuals through physical activities (Bucher, 1983:13).

Self-respect refers to the notion that individuals exhibit the evaluations about themselves, behaviors and motivations through attitudes (Aşçı, 2004). Self-concept is related to how individuals define themselves in many roles. Self-respect is a structure related to positive development in puberty. Studies conducted with young adults have indicated that self-respect is important not only for prevention of such emotional and behavioral problems as aggression and guilt, but also for supporting physical and mental health (DuBois, Burk-Braxton, Swenson, Tevendale and Hardesty, 2002; Trzesniewski et al., 2006; Impett et al., 2008: 723).

Some points should be taken into account when the self-concept is considered in terms of young adolescents. As can be seen in literature, the role of self-respect in development during puberty has been demonstrated with the studies (Harter, 1998; David & Suls, 1999). Low self-respect is related to depression (Harter, 1985; Reinherz et al., 1993; Rosenberg, 1965), suicidality (Kazdin et al., 1983), guilt (Bynner et al., 1981; Rosenberg et al., 1978; Wells and Rankin, 1983), drug abuse (Dielman et al., 1989a; Selnow & Wilson 1985; Stacy et al., 1992) and decline in academic success (Barnes and Welte, 1986; Hawkins et al., 1992; Johnston and O'Malley, 1986; Kandel, 1980). In conclusion, successful development of positive self-worth can lead to healthy results or help protecting youth from problematic behaviors. Puberty is a period in which changes occur in self-respect and physical, social and cognitive development is fast. Self-respect can also be referred to as self-worth. It is an important feature of results in adulthood and puberty. High self-respect is related to various positive results such as professional success, social relations, well-being, and positive perception by peers, academic success and developing coping skills. Low self-respect is related to such negative results as depression, drug abuse and anti-social behaviors (Biro, Striegel-Moore, Franko, Padgett and Bean, 2006: 501).

In this study, the purpose is to provide deprived children in puberty with the necessary motivation for high self-respect through sports activities and physical education organizations, and to help them develop their attitude values. Reintegration of youth who grew out of family integrity into the society and behaving friendly necessary for improvement of positive attitude skills should be considered not only as a social duty, but also a human responsibility.

## METHOD

A method directed to descriptive survey and relational screening aiming to exhibit the current situation has been used in the research.

## POPULATION AND SAMPLE

Research population is composed of children aged between 12-18 receiving service from Children and Youth Centers (ÇOGEM) affiliated to Istanbul Provincial directorate of Family and Social Policies, T.R. Ministry of Family and Social Policies. 5 Children and Youth Centers (ÇOGEM) sustain their activities as affiliated to Istanbul Provincial Directorate of Family and Social Policies.

Research sample is composed of 151 children in total out of 278 receiving service from randomly selected centers out of 5 centers sustaining their activities as affiliated to Istanbul Provincial directorate of Family and Social Policies.

## DATA COLLECTION TOOLS

### Personal Information Form

A personal information form has been prepared by the researcher with the purpose of collecting data regarding the personal information of students receiving service from children and youth centers and creating the independent variables which is the subject of study.

### Physical Education Lesson Attitude Scale for Children (BEDTÖ)

In order to measure the student attitudes, "Physical Education Lesson Attitude Scale for Children" (BEDTÖ) developed by Sherrill and Toulmin (1977) and adapted into Turkish by Özer and Aktop (2003) has been used. It is a 7-point Likert scale (strongly agree=7, agree=6, agree somewhat=5, undecided=4, disagree somewhat=3, disagree=2, strongly disagree=1) and composed of 50 items. The lowest score that can be taken from the scale is 50, and the highest score is 350 (Özer and Aktop 2003).

During the adaptation of the scale into Turkish, one of the items has been excluded due to not in line with the Turkish Education System, and the scale has been turned into 49-item and 6-point Likert scale (strongly agree=7, agree=6, agree somewhat=5, disagree somewhat=3, disagree=2, strongly disagree=1), and the lowest score that can be taken from the scale has been determined as 49, and 343 has been specified as the highest score. 24 items in the scale are positive (1, 4, 6, 7, 11, 12, 16, 18, 19, 23, 24, 26, 27, 29, 31, 33, 36, 37, 40, 43, 44, 46, 47, 48), and remaining 25 items are negative (Hünük 2006). "Undecided" statement in the middle of the original scale has been excluded but grading has been specified as 1, 2, 3, 5, 6, 7 in order for scoring not to be affected during data entry. Data entry of positive statements in the scale has been performed as 7, 6, 5, 3, 2, 1 and data entry of negative statements has been performed as 1, 2, 3, 5, 6, 7. From this point of view, it has been highlighted that the highest score that can be taken from each statement in the scale is 7. Cronbach Alpha reliability coefficient of the scale has been found to be 0.86 and Intraclass Correlation Coefficient between the first and second measurement has been found to be 0.83 (Hünük 2006).

### 3.2.3. Self-Respect Scale

In order to measure the self-respect levels of university students, Self-Respect Scale developed by Arıcağ (1999) has been used in the study. It is a 5-point Likert type scale and the students were asked to read each statement and check one of the choices (strongly agree=5, agree=4, undecided=3, disagree=2, strongly disagree=1).

The scale has been divided into five factors and because self-respect has such dimensions as self-worth, self-confidence, depressed affect, self-sufficiency, accomplishment and productivity, these dimensions have been created and the statements have been ordered as below (Arıcağ 1999).

**Self-Worth:** It is a condition in which value is attributed to the characteristics owned and needed to be owned. There are seven items in this factor (1, 13, 16, 19, 22, 27, 29).

**Self-confidence:** It is a condition in which a value is attributed to their own characteristics and it is a state of self-approval. This factor is expressed with nine items (5, 8, 9, 10, 11, 17, 20, 21, 25).

**Depressed Affect:** It is a condition in which individuals feel themselves more desperate, weaker and more powerless. There are five items under this factor (3, 4, 6, 12, 31).



**Self-sufficiency:** It is a condition in which individuals achieve their expectations and goals in mental and behavioral manner. This factor has been expressed with five items (14, 15, 24, 26, 30).

**Accomplishment and Productivity:** It is a condition in which individuals consider themselves successful and good enough. This factor has been expressed with six items (2, 7, 18, 23, 28, 32).

#### ANALYSIS OF DATA

In order to determine whether the difference between group averages directed to demographic variables is significant, first of all whether the attitude levels of students towards physical education lesson and the sub-dimensions of self-respect scale reveal normal distribution has been tested with Kolmogorov-Smirnov test and Shapiro-Wilk test. It has been observed that the variables don't distribute normally. Therefore, attitude levels of the participant students regarding sub-problems have been tested with independent variables; their attitude levels towards physical education lesson and their self-respect have been tested with non-parametric tests. Mann-Whitney U Test has been used for paired comparison, and Kruskal-Wallis Variance Analysis has been used for multiple comparisons. In multiple comparisons, when a significant difference occurs following Kruskal-Wallis Variance Analysis, Mann Whitney U Test has been applied in order to determine between which groups this difference occurs.

#### FINDINGS

**Table 1. Mann-Whitney U Test Results Indicating the Comparison of Score Averages of Students in Physical Education Lesson Attitude Scale with the Variable of Doing Exercise**

	Doing exercise	n	Line Aver.	Line Total.	U	P
Physical Education Lesson Attitude Scale	Those not doing exercise	104	62.26	6475.50	1015.500	0.000
	Those doing exercise	47	106.39	5000.50		

**P<0.05**

The results in Table 1 have indicated that the averages of students in physical education lesson attitude scale (U=1015.500; P<0.05) differ significantly by the variable of doing exercise.

**Table 2. Kruskal Wallis-H Test Results Indicating the Comparison of Score Averages of Students in Physical Education Lesson Attitude Scale with the Age Variable**

	Age		n	Line Aver.	Sd	X <sup>2</sup>	P	Significant Difference
Physical Education Lesson Attitude Scale	A	Age 14	17	63.56	3	14.900	0.002	A-C B-C B-D
	B	Age 15	24	49.00				
	C	Age 16	45	88.43				
	D	Age 17	65	80.62				

**P<0.05**

The results in Table 2 have indicated that the averages of students in physical education lesson attitude scale [ $X^2_{(3)}= 14.900$ ;  $P<0.05$ ] differ significantly by the age variable.

**Table 3. Mann-Whitney U Test Results Indicating the Comparison of Sub-Dimension Score Averages of Students in Self-Respect Scale with the Variable of Doing exercise**

	Doing exercise	n	Line Aver.	Line Total.	U	P
Self-worth	Those not doing exercise	104	60.63	6305.50	845.500	<b>0.000</b>
	Those doing exercise	47	110.01	5170.50		
Self-confidence	Those not doing exercise	104	60.00	6239.50	779.500	<b>0.000</b>
	Those doing exercise	47	111.41	5236.50		
Depressed affect	Those not doing exercise	104	63.35	6588.00	1128.000	<b>0.000</b>
	Those doing exercise	47	104.00	4888.00		
Self-sufficiency	Those not doing exercise	104	62.52	6502.50	1042.500	<b>0.000</b>
	Those doing exercise	47	105.82	4973.50		
Accomplishment and productivity	Those not doing exercise	104	59.89	6229.00	769.000	<b>0.000</b>
	Those doing exercise	47	111.64	5247.00		

**P<0.05**

The results in Table 3 have indicated that the self-worth ( $U=845.500$ ;  $P<0.05$ ), self-confidence ( $U=779.500$ ;  $P<0.05$ ), depressed affect ( $U=1128.000$ ;  $P<0.05$ ), self-sufficiency ( $U=1042.500$ ;  $P<0.05$ ) and accomplishment and productivity ( $U=769.000$ ;  $P<0.05$ ) dimensions of students, being the sub-dimensions of self-respect scale, differ significantly by the variable of doing exercise.

**Table 4. Kruskal Wallis-H Test Results Indicating the Comparison of Sub-Dimension Score Averages of Students in Self-Respect Scale with the Age Variable**

	Age	n	Line Aver.	Sd	X <sup>2</sup>	P	Significant Difference
Self-worth	A Age 14	17	64.91	3	5.436	0.143	-----
	B Age 15	24	63.19				
	C Age 16	45	85.68				
	D Age 17	65	76.93				
Self-confidence	A Age 14	17	68.21	3	11.538	<b>0.009</b>	B-C B-D
	B Age 15	24	50.75				
	C Age 16	45	79.78				
	D Age 17	65	84.75				

Depressed affect	A	Age 14	17	65.41	3	6.702	0.082	-----
	B	Age 15	24	61.77				
	C	Age 16	45	73.99				
	D	Age 17	65	85.42				
Self-sufficiency	A	Age 14	17	32.62	3	30.603	<b>0.000</b>	A-B, A-C A-D, B-C C-D
	B	Age 15	24	64.79				
	C	Age 16	45	98.56				
	D	Age 17	65	75.87				
Accomplishment & productivity	A	Age 14	17	66.09	3	12.727	<b>0.005</b>	B-C B-D
	B	Age 15	24	49.69				
	C	Age 16	45	82.72				
	D	Age 17	65	83.65				

**P<0.05**

The results in Table 4 have indicated that the self-worth [ $X^2_{(3)}= 5.436$ ;  $P>0.05$ ] and depressed affect [ $X^2_{(3)}= 6.702$ ;  $P>0.05$ ] dimensions don't differ significantly by the age variable; self-confidence [ $X^2_{(3)}= 11.538$ ;  $P<0.05$ ], self-sufficiency [ $X^2_{(3)}= 30.603$ ;  $P<0.05$ ] and accomplishment and productivity [ $X^2_{(3)}= 12.727$ ;  $P<0.05$ ] dimensions of students, being the sub-dimensions of self-respect scale, differ significantly by the age variable.

#### DISCUSSION CONCLUSION AND SUGGESTIONS

The research is composed of two parts. In the first part, attitude levels of children receiving service from children and youth centers towards physical education lesson and their self-respect have been determined. Whether the attitude levels of students towards physical education lesson and their sub-dimensions of self-respect scale differ according to the variables of age and doing exercise has been evaluated with various statistical procedures.

When Table 1 is considered, significant differences are observed in terms of the variable of doing exercise according to the physical education attitude scale averages of students receiving service from children and youth centers. In studies of Attitudes of Secondary School Students towards Physical Education Lesson and Analysis of Academic Achievement Motivations, Akandere et al. (2010) have determined significant difference in terms of doing exercise in free time on behalf of those doing exercise in comparison of the student attitudes towards physical education lesson. It has been observed that the attitude scores of secondary school students towards physical education lesson according to doing exercise are higher than the attitude scores of other students towards physical education lesson (Güllü 2007). The findings obtained are in parallel to the studies of Kangalil et al. (2004), Hünük 2006, Güllü (2007) and the thesis of Cox (1990).

According to the findings obtained in Table 2, it is seen that the physical education lesson attitude scale averages of students receiving service from children and youth centers differ significantly by the age variable. According to the age group results of students, it has been specified that attitudes of the students aged 14 and 15 towards physical education lesson is significantly lower than those aged 16, the attitudes of those aged 15 is significantly lower than those aged 17. In the study directed to the analysis of the attitudes of adolescent high school students

studying in Niğde province towards physical education lesson and sports, and their level of physical fitness, Doğan (2011) has concluded that the older the age is, the higher the attitudes towards physical education lesson are. In the study conducted on the attitudes of the students studying in secondary schools in Ankara province towards physical education lesson, Hönük (2006) has expressed that the higher the age and class levels of students are, the higher their interests towards physical education lesson are. According to the study conducted by Koca and Demirhan (2004), attitude scores of boys differ significantly in comparison to girls and the higher the class level of students are, the higher the attitude scores of male students become.

Akandere et al. (2010) have identified significant differences regarding the comparison of attitudes towards physical education lesson in terms of age groups. The attitude scores of subjects aged 14-16 have been found to be higher than those aged 17-19.

When Table 3 is analyzed, the results concerning the self-respect of the students receiving service from children and youth centers have been obtained. When doing exercise is considered for children according to these results, it has been concluded that self-worth, self-confidence, depressed affect, self-sufficiency, accomplishment and productivity dimensions of students being the sub-dimensions of self-respect scale differ significantly by the variable of doing exercise. When the line averages are taken into account, it has been determined that the students doing exercise have significantly higher score averages than those not doing exercise in all dimensions (self-worth, self-confidence, depressed affect, self-sufficiency, accomplishment and productivity) of self-respect scale. In a study on high school students who do and don't do exercise, Aşçı et al. (1993) have identified that participation in sports has an important effect on self-concept. This case coincides with our study. The study of Slutzky et al. (2010) concluding that the time spent for exercise positively affects self-respect values. In another study parallel to our study, self-respect scores of amateur body builders and those not doing exercise have been compared and it has been observed that self-respect scores of body builders have been found to be at medium level and self-respect scores of those not doing exercise have been low (Mekolichick 2003). In a research comparing the self-respect scores of students who participate in sports summer school, statistically significant difference has been specified between general self-respect, social self-respect, academic self-respect, pretest and posttest total scores of students who participate in summer schools. (Korkmaz, 2007). In a research of Gün (2006) conducted with the purpose of revealing the relation between the Self-Respect levels of adolescents who do or don't do exercise aged between 12-14, positive significant relations have been determined between self-respect scores of those doing and not doing exercise. Following this study, it has been stated that doing exercise is very important and beneficial in reducing the stress signs of adolescents.

The results in Table 4 have indicated that the dimensions of self-worth and depressed affect of students being among the sub-dimensions of self-respect scale don't differ significantly by the age variable; but the dimensions of self-confidence, self-sufficiency, accomplishment and productivity significantly differ by the age variable. According to the age group results of students, it has been indicated that the students at the age of 15 use the self-confidence, accomplishment and productivity - being among the sub-dimensions of self-respect scale - significantly less than those at the age of 16 and 17. It has also been stated that the students at the age of 14 use the self-sufficiency sub-dimension of self-respect scale at significantly lower level than those aged 15, 16 and 17; and the same applies to those aged 15 and 17 in comparison to the students at the age of 16. In the light of

these findings, it can be uttered that younger students perceive self-concept lower than older students in terms of self-confidence, accomplishment, productivity and self-sufficiency levels being among the sub-dimensions of self-respect.

When previous studies are considered, there are some studies that coincide with our findings. In a sample study composed of approximately 2000 people conducted with the purpose of determining the effects of age on self-respect in adolescents, Mc Carty and Hoge (1982) have stated that the older the adolescents are, the higher their self-respect is. Mullis et al. (1992) have analyzed the self-respect levels of 270 adolescents aged between 14 and 19. Following the study, it has been concluded that self-respect increases in parallel to age. It has been expressed that the transition period from secondary to high school is the most critical and important period in terms of self-respect. In a similar study analyzing the relation between self-respect, self-perceptions, evaluations and the IQ level of children in need aged between 9-12, Pektaş (2003) has concluded that the self-respect level of children at this age living with their families is higher than those living in orphanages. Necessary suggestions suitable for our research results are as below;

Psychological counselors, administrators, teachers and parents can support the social development of students with low self-respect by guiding them towards various cultural and sports activities consciously.

Cultural and sports activities should be conducted in an appropriate, conscious and systematic way at school, physical education lesson shouldn't be a selective course anymore and all students must be ensured to benefit.

Students should be instilled with awareness of making use of their free time.

Self-concept and despair perceptions of children being raised in child centers can be increased through sports activities.

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## Competency Perceptions Of Physical Education Teachers About Measurement And Evaluation

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**Abstract:** The objective of this research is determination of competency perceptions of physical education teachers about measurement and evaluation. In this study, screening model has been used. The research group is consisted of 25 women (23.6%), 81 men (76.4%) and in total 106 physical education teachers that work in Aksaray City. "Measurement and Evaluation of Common Competency Perception Scale" has been used as a data collection tool. T-test based on the difference between the arithmetical means and analysis of variance have been used in independent groups with the descriptive statistics in analyses. The competency perceptions of teachers about measurement and evaluation have been determined as high according to this research. In "basic concepts" and "statistical analysis and reporting" sub-dimensions of competency perception of physical education teachers about measurement and evaluation, the result has been determined as qualified; concordantly, in "measurement techniques" sub-dimension, the result has been determined as well-qualified. Besides, it has been stated that the competency perceptions of teachers have not been changed according to their gender, experience, and high school course type in this research.

**Key Words:** Competency - Measurement and Evaluation in Education - Physical Education - Physical Education Teacher

### INTRODUCTION

Education is defined as the period of modifying the individual behaviors by the effect of life experiences (Ertürk, 1972). Whether the applied education is successful or not; if it is, determination of the changes and the effects on students is very significant. In this kind of an education period, curriculum is designed according to the answers of the questions such "Why education?" for the objective; "What will be taught?" for the content; "How will be gained?" for the method; "Where will be educated?" for the education environment; and "How much learned?" for the dimensions of measurement & evaluation (Yılmaz, 2004). Therefore, the competency of teachers is ponderable as an important factor to achieve the goals of education program.

According to Oğuz (2009), the performance of a teacher in teaching depends on professional competences of a teacher. In other words, being successful or unsuccessful in teaching is affected by the competences of teachers. Senemoğlu (2004) has emphasized that teachers should have the capabilities of determining the characteristics of students about improvements & requirements, arranging the learning-teaching environment, and implementation of measurement & evaluation activities.

Measurement and evaluation activities can be considered as the quality control mechanisms of education system (Tekin, 2009). In other words, the level of actual targets and the targets which unrealized can be determined by measurement and evaluation activities. Thus, measurement and evaluation activities can be conceivable as the important part and supplementary of education period (Kalemoğlu, Ağbuğa, Erbaş, 2015). As a matter of fact, Linn and Grönlund (1995) implied that the aim of measurement and evaluation is increasing the quality and enhancement in education period. Daniel and King (1998) also stated that one of the most important qualifications is based on information and ability for teachers in measurement and evaluation activities.

In order to get the highest efficiency from the physical education courses that have an important portion in education system to achieve the goals of education, the qualifications of teacher about measurement and evaluation have also high importance. Because, all of the target goals in physical education courses such earning information, abilities, behaviors and habits that are inherent and supplement of general education, shall be determined and evaluated for the psychomotor behaviors (Başoğlu, 1995). Baykul (2000) has also quoted that giving marks to students according to their physical abilities will show only the data about their physical development; however, this evolution should be evaluated in terms of mental, emotional and social aspects. Therefore, competency of teachers about measurement and evaluation is important deliberately. Because it has been observed that the teacher candidates with high competency belief and learning motivation can complete their teaching applications successfully with an ability of problem solving based on improvement of student success (Woolfolk and Hoy, 1993); while, the teachers with low competency use traditional methods more frequently with a tendency of using solid management strategies in a controlled education environment (Witcher, Onwuegbuzie, Collins, Minor and James, 2002). Moreover, the teachers with low competency think that they do

not have any skill for creating terminal behavior in students (Wheatly, 2002). When the literature is examined, it has been established that competency perceptions of prospective physical education teachers are low (Arslan, Erturan-İlker and Demirhan, 2013; Çelik and Arslan, 2012); at the same time, competency perceptions about measurement and evaluation do not vary by gender (Çelik and Arslan, 2012; Şahin and Uysal, 2013; Ülper and Bağcı, 2012).

In literature, although studies exist for the determination of competency perceptions of physical education teachers about the measurement and evaluation; there is no study regarding the specifying the competency perceptions of physical education teachers about the measurement and evaluation. In order to get the highest efficiency from the physical education courses that have an important portion in education system to achieve the goals of education, the qualifications of teacher about measurement and evaluation have also high importance. Therefore, competency of teachers about measurement and evaluation is important deliberately. From this point of view, determination of competency perceptions of physical education teachers about measurement and evaluation has been targeted in this research.

## MATERIAL & METHODS

### Model of Research

Screening model has been used in this research. Screening model is the researching approaches with a goal of describing a case as it is that happened in past or still exist. The competency perception about measurement and evaluation of physical education teachers has been tried to be determined in this research.

### Research Group

Research group is consisted of physical education teachers that work during 2014-2015 education year in Aksaray City. Sampling method was not used due to all physical education teachers work in Aksaray City have been contacted. However, when we consider the 66 deficient measurement tools are not included in research, the research group is consisted of 106 ( $M_{age}=37.37$ ,  $SD=5.73$ ) physical education teachers. In research group, 25 women (%23.6) and 81 men (%76.4) exist.

### Data Collection Tools

Personal information form and "Measurement and Evaluation of Common Competency Perception Scale" have been used as a data collection tool.

**Personal Information Form:** This form includes items related with age, gender, experience, and high school course type of the teachers joined in research.

**Measurement and Evaluation of Common Competency Perception Scale:** "Measurement and Evaluation of Common Competency Perception Scale" that was enhanced by Nartgün in 2008 has been used to determine the competency perception about measurement and evaluation of physical education teachers. This scale is formed by 24 articles and 3 factors. Factors have been named as "basic concepts", "measurement techniques" and "statistical analysis and reporting". All articles have been formed by positive statements. Articles are in five point Likert scale as stated, (5) well qualified, (4) qualified, (3) average, (2) non-qualified and (1) poor. The lowest score can be taken from scale is 24 and the highest one is 120. The possible lowest and highest scores are 6-30 respectively in first dimension, 9-45 in second dimension and also 9-45 in third dimension. High scores that got from the all scale and each sub-dimensions, can be interpreted as qualified; in parallel, low scores as non-qualified. For example, in order to determine the test retest reliability, ultimate form of scale has been applied to a study group consist 20 students, twice in every 20 days and the correlation coefficient has been found as 0.91 from the results of these two applications. Cronbach's alpha values are 0.87 for all scale; 0.84 for the first sub-dimension; 0.79 for the second sub-dimension; and 0.77 for the third sub-dimension.

Coefficient of internal consistence has been calculated again for this research and values of Cronbach's alpha are 0.90 for all scale; 0.82 for the first sub-dimension; 0.83 for the second sub-dimension; and 0.92 for the third sub-dimension.

### Analysis of Data

Distribution of research data has been regarded before analysis. Lilliefors Kolmogorov-Smirnov test shows that the study data is appropriate for normal distribution ( $p>0.05$ ). Histogram graph and normal distribution curve are determined by Skewness (+1 and -1) and Kurtosis (+2 and -2), also analyses have been done according to this. In this research, firstly the arithmetical means of the articles in every sub-dimension have been calculated and the

score has been determined for the factor. Analyses have been made according to these factor scores. Independent samples t-test and Analysis of variance (ANOVA) have been used to determine the descriptive statistics (number, percentage, arithmetical mean, and standard deviation) and the difference between the dependent and independent variables in analysis of data. Also, 0.01 and 0.05 significance levels have been used in data interpretation. Survey data has been analyzed by the software, SPSS 18.

## RESULTS

The values of arithmetical mean and standard deviation about measurement and evaluation of competency perception of physical education teachers have been tabulated in Table 1.

**Table 1.** Scores of competency perception about measurement and evaluation

Measurement and Evaluation in Education	n	M	SD
Basic Concepts	106	24.83	2.699
Measurement Techniques		37.26	4.026
Statistical Analysis and Reporting		33.42	6.205
<b>Competency Perception Sum</b>		<b>95.51</b>	<b>9.768</b>

When the Table 1 has been examined, the arithmetical mean has been calculated as  $M=95.51$ ,  $SD=9.768$  regarding the measurement and evaluation of competency perception of physical education teachers.

Independent samples t-test has been used to determine the effect of gender on measurement and evaluation of competency perception of teachers and the results of analysis have been tabulated in Table 2.

**Table 2.** Competency perception about measurement and evaluation according to gender variable

Dimensions	Gender	n	M	SD	Sd	t	p
Basic Concepts	Female	25	24.76	2.314	104	-.148	.096
	Male	81	24.85	2.820			
Measurement Techniques	Female	25	37.20	3.605		-.091	.380
	Male	81	37.28	4.169			
Statistical Analysis and Reporting	Female	25	33.04	5.912		-.353	.862
	Male	81	33.54	6.324			
Competency Perception Sum	Female	25	95.00	7.533		-.303	.113
	Male	81	95.67	10.396			

$p>0.05$

When the Table 2 has been examined, total score of competency perceptions of physical education teachers is ( $M_{male}=95.67$ ;  $M_{female}=95.00$ ), “basic concepts” lower dimension ( $M_{male}=24.85$ ;  $M_{female}=24.76$ ), “measurement techniques” lower dimension ( $M_{male}=37.28$ ;  $M_{female}=37.20$ ) and “statistical analysis and reporting” lower dimension ( $M_{male}=33.54$ ;  $M_{female}=33.04$ ) have been calculated. The competency perceptions of teachers do not vary by gender ( $p>0.05$ ).

Analysis of variance (ANOVA) has been used to determine the effect of experience on measurement and evaluation of competency perception of teachers and the results of analysis have been tabulated in Table 3.

**Table 3.** Competency perception about measurement and evaluation according to experience

Dimensions	Experience	n	M	SD	Sd	F	p
Basic Concepts	1-5 years	16	24,25	2,294	4 101	0.505	.732
	6-10 years	18	24,50	2,915			
	11-15 years	24	24,87	3,040			
	16-20 years	42	25,02	2,627			
	21 years <sup>+</sup>	6	25,83	2,483			
Measurement Techniques	1-5 years	16	35,68	3,609	4 101	1.293	.278
	6-10 years	18	38,38	4,132			
	11-15 years	24	37,70	5,103			
	16-20 years	42	37,35	3,539			
	21 years <sup>+</sup>	6	35,66	2,065			
Statistical Analysis and Reporting	1-5 years	16	34,93	4,373	4 101	0.844	.501
	6-10 years	18	31,38	4,394			
	11-15 years	24	34,29	6,010			
	16-20 years	42	33,26	7,088			
	21 years <sup>+</sup>	6	33,16	9,020			
Competency Perception Sum	1-5 years	16	94,87	6,965	4 101	0.212	.931
	6-10 years	18	94,27	7,797			
	11-15 years	24	96,87	10,551			
	16-20 years	42	95,64	11,246			
	21 years <sup>+</sup>	6	94,66	9,244			

p>0.05

According to Table 3, any difference has not been observed in measurement and evaluation of competency perception of physical education teachers according to experience (p>0.05).

Analysis of variance (ANOVA) has been used to determine the effect of high school course type on measurement and evaluation of competency perception of teachers and the results of analysis have been tabulated in Table 4.

**Table 4.** Competency perception about measurement and evaluation according to high school course type

Dimensions	High School Course Type	n	M	SD	Sd	F	p
Basic Concepts	Non-math	34	24,58	2,512	2 103	0.701	.498
	Equally weighted	49	25,16	2,882			
	Sciences	23	24,47	2,591			
Measurement Techniques	Non-math	34	38,14	3,718	2 103	1.233	.296
	Equally weighted	49	36,77	4,042			
	Sciences	23	37,00	4,379			
Statistical Analysis and Reporting	Non-math	34	35,02	5,012	2 103	2.069	.131
	Equally weighted	49	32,24	6,875			
	Sciences	23	33,56	5,991			
Competency Perception Sum	Non-math	34	97,76	9,487	2 103	1.394	.253
	Equally weighted	49	94,18	10,327			
	Sciences	23	95,04	8,699			

p>0.05

When the Table 4 has been examined, any difference has not been observed in measurement and evaluation of competency perception of physical education teachers according to high school course type (p>0.05).

## DISCUSSION & CONCLUSIONS

The competency perceptions of teachers about measurement and evaluation have been determined as high according to findings in this research (Table 1). There is no study that supports this finding. Moreover, findings differ from the many researches that have determined the competency perceptions of prospective teachers about measurement and evaluation (Arslan, Erturan-İlker and Demirhan, 2013; Çelik and Arslan, 2012; Evin-Gencil and Özbaşı, 2013; Kilmen, Akın-Kösterelioğlu & Kösterelioğlu, 2007; Pektaş, 2010; Şahin and Uysal, 2013).

The reasons of difference between the findings of researches can be considered as the different properties of samples and the high school course studies, latent variables that have not been involved in research.

When the competency perceptions of physical education teachers about measurement and evaluation have been examined according to gender, any difference has not been observed between the men and women (Table 2). Likewise, also any difference has not been observed about the competency perceptions of physical education teacher candidates about measurement and evaluation in the research has been done by Çelik and Arslan (2012). Çelik and Arslan has attributed that this situation is related with the non-qualified education programs regarding the measurement and evaluation of physical education teacher candidates in our country.

Another finding from the research is that the competency perceptions of teachers about measurement and evaluation do not change according to experience (Table 3). Although it was expected that the junior teachers would have more information about the approaches of measurement and evaluation (Tuncer and Yılmaz, 2012), research finding shows that senior teachers are more qualified about the modern approaches of measurement and evaluation. Besides, it may be considered that senior teachers got in-service training about the measurement and evaluation subject.

When the competency perceptions of physical education teachers about measurement and evaluation have been examined according to high school course type, any difference has not been observed (Table 4). Although, it was expected that especially the sciences graduated teachers would have higher competency perceptions than the other teachers in statistical analysis and reporting dimension, an opposite result has been taken in research. In view of the teachers in study group feel qualified themselves about measurement and evaluation, it can be stated that any difference has not been observed according to high school course type. Moreover, while the teacher candidates in non-math programs (Turkish Language and Literature, Philosophy Group, Linguistic Group etc.) indicated that the gaining of competencies based on mathematical operations in statistical analysis and reporting dimension shall be considered more important, the result can be interpreted as non-math and equally weighted teacher candidates have been improved themselves in this issue by various training activities.

As a result, the highness of the competency perceptions of physical education teachers about measurement and evaluation will provide an advantage for remedy the deficiencies of students and learning more effectively. At the same time, the results of this research that may be considered as beneficial cannot be generalized due to the small study group limitation with the physical education teachers that work in only one city. Thus, similar studies with different samples are needed. Such studies will make a big contribution for the determination in a better way of competency perceptions of physical education teachers about measurement and evaluation and correspondingly getting the desired results from physical education courses precisely.

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## Determination Of Free Time Activities And Expectations Of Students Studying At Some Universities In Firat Area

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**Abstract:** This study has been performed to determine the non-participation reasons of Firat, Inonu, Bingol and Tunceli University's students into leisure activities and their expectations of from own university managements.

The study group is composed of 3009 students, who are studying in Firat, Inonu, Tunceli and Bingol universities in Firat area and were selected among 60 thousand students in central campuses of the universities via random sampling technique.

The statistical findings have been evaluated by means of SPSS (Statistic Packet For Social Sciences 15.0) program. Frequency distribution of all questions has been made out and their percentage values have been determined. The survey questions have been evaluated by Likert Typed Scale.

As a result; university students find that engaging with leisure activities are expensive and also they don't know what to do or what they can do in their leisure times. Students claim that they don't have enough social promotions towards participation in leisure activities and they are having hard times on finding friends who can guide them through leisure activities.

It was observed that the expectations of students from the university management about leisure activities were great, and the greatest expectation was these which rendered within the body of sportive activities.

**Keywords:** Free time, recreation, university, students

### INTRODUCTION

The phenomena free time is gradually gaining significance and is placed at the life focus of people from almost all classes. Along with the rise of the increasing production and welfare society as a consequence of industrialization, free times are also increasing and the way to use these is becoming a problem. This period of time that actually should be within the initiative of the individual and left to his free choice is gradually being captured by the power of the rulership, which wants to control free time. The individual or the societal classes are exposed to more choices and preferences in terms of free time and the tendency to consume all choices brings along the problem of the debate on the dominance of the individual on this period. The reason is that particularly capitalism and the consumption sector growing underneath its umbrella seem to have discovered the profitability of making money over the free time of the individual. Therefore, the utilization of the free time left is currently getting away from the individual's initiative and is seized by the sectors in this field and the power (1).

At this point the social scientists point out to the fact that the free time process is being colonized and emphasize the issue that the individual should be oriented to real preferences, listen to his inner voice and keep away from manipulations and mass orientations (1).

"Today it seems that free time and consideration of this time for people from all classes is an important problem. The problem whether this time would be used for personal development, for building a virtuous and humanitarian society or for inequality, social Vandalism, to serve for the restoration of the feelings of nothingness and unreason, staying as a hunting field for the hegemonic order pressed by capitalism certainly depends on the meaning to be related to free time and the awareness we would show for the consideration of this time (1).

University education is the most important period when the behavior types to continue for years are formed. Each positive attitude to be gained in this period will take the individual one step further towards happiness. Therefore, free time and recreation should be a part of the academic education for university students and students should specify the significance of the concept of recreation and the training of evaluation of free time in their lives. In fact, recreation contains the activities that make up a different world for the individuals and that makes one gain various experiences to overcome obstacles. It is very important to carry out continuous studies to identify individuals' interests and education and to keep in consideration the factors of age, heredity and education for a good recreation program. The reason is that free time will exist with the individual during his life from childhood to old age and recreation will give people experiences with psychological, social and physical benefits at all periods of life (2). Therefore, recreation should be supported as part of basic education. Also, it should be accepted as the main factor of education (3). The recreation program includes free time philosophy, planning, management, diagnosis, activity and function. In this sense programming should be combined with ability and practice as an art as recreation is strengthened with the significant and successful roles played by the management and the supervisors. Today recreation is considered a rising value. The recreation programs at the universities have a very significant role on the university population.

Recreation activities are part of school life. Today each student that spends most of his time in classrooms, laboratories or study tables need to participate in recreation activities. Therefore, the activity programs of universities should provide opportunities for recreation and rest and take the burden of the modern life and school work from the students. The necessary effort, planning and programming should be carried out for these (4).

Youth has different categories in itself as for its general characteristics (urban youth, rural youth, studying youth, unemployed youth etc.); the university youth makes up one of these categories. The way the young people spend their free time is very much related to the opportunities and occasions provided for them. Therefore, the ways the urban youth, rural youth, slum area youth or the studying, working, unemployed youth have for spending free time are different from each other. University students experience an intensive physical changing period's characteristics that come along with the youth, and a crisis of identity necessitated by the normal development of people. Self-concept consists of the self-sensation of the person, sensation of the person regarding to the relations of other people, sensations regarding to the objects around and the values given to such sensations. In this period; it is inevitable that the person knows himself and participates in free time activities in order to recognize his/her skills and competences. Besides the scientific education of individuals having personal independence who have overcome ego concept crisis of youth; the driving force deprived from familial education and pre-university formal training can be provided by rich free time activities. Via these activities, youth develop the human force required for the development of the country besides being prepared for life (5). In our country, majority of the university youth spends their free times by reading gazette, books and magazines, going to cinema and theatre, listening radio, watching television, going to coffee houses, watching matches, going around aimlessly with their friends or socializing with them. According to a research performed on the students of Ankara University, youth are going to cinema and theatre and going around aimlessly in groups. In individual cases, going to the work, listening radio, watching TV, listening music, reading books and going to coffee shops take place (6). The studies performed have revealed that university youth watching serious programmes, going to conferences, participating in various clubs or organizations, drawing pictures, playing a musical instrument, playing sports, participating actively in theatre and other branches of art is in the minority (5,7). The most important matter to be insisted here is free time training and its purpose. Free time training is the training performed to have the individual to estimate his/her free times in order to be efficient and beneficiary. In this training, the purpose is to have the individual to gain the skill to select a free time activity that develops his/her personality and to have the individual to express himself/herself creatively (8).

Our research is oriented to test the ways of higher education students how they spend their free times.

Via this study; it is tried to analyze

- The insufficient participation of university students to free time activities
- The matters such as the expectations of university students from the university management in order to spend their free times.
- 

#### EQUIPMENT AND METHOD

In this section, explanations regarding to the target population of the study, its sample, data gathering tools used in the study, data collection and statistical analyses used in the analysis of data are specified.

##### Target population and Sample Selection in the Study

The target population of this study is near 60 thousand students studying at Fırat, İnönü, Tunceli and Bingöl universities located in the Fırat basin.

Sample of the study consists of the random students at the central campus of the relevant universities who are studying in 2010-2011 academic year.

Within the scope of the study, volunteer 3009 students are reached who are studying at the relevant universities (Table 4).

##### Method of the study

Before the statistical evaluations, the questionnaires are controlled whether they are correct and valid or not. Survey questions are taken into evaluation with Likert Type Scale. In Likert Type scale, a five-level scale is used from the activities performed "always" to the activities that are "never performed". The participation frequency to the activities in this study consists of five different scales as "strongly agree", "agree", "neither agree not disagree", "disagree" and "strongly disagree".

##### Data Gathering Tools

Questionnaire is used for obtaining the information regarding to the matters specified in this study. Survey form consists of 75 questions. While the survey form is being prepared, the survey questions applied by other researchers are inspected. The validity and confidence of this survey is performed and alpha ( $\alpha$ ) value is



found as 75.766%. Application of the surveys required for the study are applied to the students in the relevant universities by the researcher.

The survey application stage of this study is applied in 2010-2011 academic year. Survey forms are given to the students and some of them are collected by the researcher interviewer from the students who are not available at that time.

### Statistical evaluations

Data obtained from the surveys applied are entered in the computer by coding and then analyzed by using some statistical techniques. Findings obtained from the study area are transferred to the computer environment and subject to evaluation via the SPSS (Statistic Packet For Social Sciences 15.0) programme. Frequency distributions of all the questions are obtained and their percentage values are found.

A separate table is created for every free time activity, no. of people and percentage ratio are specified in the tables and in the tables "(N)" means the no. of people and (%) is the percentile ratio.

### Findings

**Table 1:** Distribution of the participants in the survey according to the universities

University	N	%
Firat University	1379	45,8
Bingöl University	206	6,8
İnönü University	1219	40,5
Tunceli University	205	6,8
<b>Total</b>	<b>3009</b>	<b>100,0</b>

It is determined statistically at percentile ratios that 1379 students from Firat University at 45,8%, 206 students from Bingöl University at 6,8%, 1219 students from İnönü University at 40,5% and 205 students from Tunceli University at 6,8% have participated in the survey.

(Table 1).

**Table 2:** Reasons of failing to participate of the students in the free time activities

Free time activities	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Total
	N - %	N - %	N - %	N - %	N - %	N - %
Being expensive	622-20.7	1175-39.0	625-20.8	354-11.8	233 -7.7	3009 - 100
Being unfamiliar	318-10.6	961-31.9	683 -22,7	587-19.5	460-15.3	3009 - 100
Absence of encourager	389 -12.9	863-28.7	572 -19.0	635-21.1	550-18.3	3009-100
No habit	381-12.7	829-27.6	551-18.3	702-23.3	548 -18.1	3009-100
Environmental obstacles	492-16.4	861-28.6	547 -18.2	629-20.9	480 -16.0	3009 - 100
No diagnosis and tools	684-22.7	1066-35.4	585 -19.4	435 -14.5	239 - 7.9	3009 - 100
Programme does not conform	496-16.5	1077-35.8	641-21.3	509-16.9	286- 9.5	3009 - 100
No free time	462-15.4	877-29.1	548 -18.2	691-23.0	431- 14.3	3009-100

It is observed regarding to not participating in the free time activities that 39,0% of the students have agreed in the article "free time activities are expensive". The ratio of not participating in the question that the free time activities are expensive and thus I cannot participate in the activities at will is 11.8%. According to the students, the ratio of agreeing in the articles "don't know what to do" is 31,9% and the ratio of disagreeing with the article is 19.5%.

28,7% of the students agree and 21,1% disagree with the article "I do not have sufficient social incentives and friends in order to forward me to such activities". 27,6% of the students agree and 23,3% disagree with the article "I do not have any habit for spending my free time with some activities and I don't have such habits". Insufficient participation in free time activities due to the environmental obstacles is marked by 28,6%

of the students as agree and 20,9% as disagree. Among the articles that can be specified for not participating in free time activities sufficiently, 35,4% of the students agree and 14,5% disagree for the matter "plant, tools are not sufficient and the programmes don't suit for me". It is specified that 35,8% of the students agree and 16,9% disagree to the matter "programmes of the activities prepared as free time activities don't suit for me" (Table 2).

*Table 3: Expectations of the Students from the University Management in order to spend their free times*

Expectations from the university	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Total
	N - %	N - %	N - %	N - %	N - %	N - %
Arrangement of sports activities	1637-54.4	1007-33.5	244-8.1	77 -2.6	44 -1.5	3009-100
Artistic, cultural, exhibition	1517-50.4	1079- 35.9	273-9.1	84 -2.8	56 -1.9	3009 -100
Hobby clubs	1549-51.5	1037- 34.5	262-8.7	104-3.5	57 -1.9	3009-100
Chess, snooker, playing cards	1531- 50.9	1038-34.5	259-8.6	112-3.7	69-2.3	3009 -100
Arrangement of common organizations	1548- 51.4	1003 -33.3	264-8.8	117-3.9	77 -2.6	3009 -100

It is observed that the students desiring the arrangement of sports activities is observed as 87.9%. The ratio of the students desiring the arrangement of activities such as various artistic, cultural, exhibition, conference, meeting, conversations etc. is 86.3%. The ratio of the students desiring the development and activation of hobby clubs is found as 86%. It is found that the ratio of the students desiring the arrangement and being widespread of play areas such as chess, snooker, playing cards etc. is 85.4%. Also the 84.7% of the students have specified that they have participated in the arrangement of common organizations (Table 3)

### Discussion and Result

It can be said that 39% of the students have accepted the opinion that economic status is important for participating in the free time activities. 19.5% of the students have specified that they do not agree with this opinion (Table 2). In a study performed, it is specified that 35.7% of the students have specified that economic insufficiency prevents the participation in free time activities (9). It is concluded that our study is supporting our examination.

The students have specified that 32% of them agree in "what to do" article and about 20% of the students disagree. Accordingly it can be said that the students don't know what to do in their free times. It is observed that the students nearly agree and disagree to the expression "I don't have the social incentives and friends who will forward me to the free time activities". 40% of the students agree with the "I have no habit to spend my free times" matter and 41% of them disagree. When we consider the participation ratios of the students to "insufficient participation to free time activities is caused by the environmental obstacles", 45% of them agree and 37% of them disagree. It is seen that 35.4% of the students agree to the matter "plant, tools are not sufficient and the programmes don't suit for me" (Table 2). In a study performed on the university students, it is found that 39% of the students specify that "there is no plant and the programmes do not suit for me" (9).

As a result of the study results performed on the university students, although the university students aspire, they cannot participate in the sports and recreation activities due to the insufficiency of the organization and insufficiency of the identification and encouraging factors (10). These studies provide similar results with our investigation.

Students have some expectations from the university management in order to spend their free times. These are the arrangement of conferences and exhibitions, development of hobby clubs, opening playing zones for chess, snooker and playing cards, arrangement of sports activities and development of common organizations respectively (Table 3).

In a study performed with the students at Firat University; it is expected that the students expect from the university, faculty and the provincial authorities to open and vary places for cultural, social and sports activities in order to have their free times spend efficiently (11). The expectations of the university students from the university management are specified as competitions among the departments, faculties, universities, nature trips, sports activities in order to spend their free times effectively (12). The study has given similar results with our investigation.

At the end of the data obtained, in general, it is observed that the low income status of the students has negatively affected the participation of the students in recreation activities and the students desire to have their

programmes arranged for the common organizations with their students, to open recreation activity areas and the students have expectations from the university management to arrange social and cultural activities at the times out of the lessons.

### Recommendations

Sufficient recreation areas should be created for the students in order to have them spend their free times efficiently and positively. In order to have the students participate in sports, social and cultural activities; providing the required physical and economic conditions should be performed by considering the recreation activities and programmes oriented to the students and the socio and economic properties of the students. In order to increase the economic status of the students to a higher level, scholarships and part time job opportunities should be provided to the students. This study will constitute data for the universities about the matters to be done in order to have the students spend their free times efficiently. Thus experimental studies based on activity can be performed in the relevant areas.

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## Investigation Of Personality Characteristic Of Secondary School Students According To Sport Branches

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**Abstract:** In this study, it is aimed to examine the difference between the students' sport branches and the personality characteristics of those who take education at secondary school and take part in team sports. The sample has been comprised of 429 sportsman students, including 190 female and 239 male students who attend secondary school and take part in team-sports during 2013 – 2014 academic year in Osmaniye. The methods for collecting data were personal information forms and Basic Personality Traits Inventory (BPTI) (Gençöz and Öncül, 2012). When the basic personal characteristics of students were examined according to the sport branches; there were significant differences in all subscales. Beside the results of the study shows that in general; the responsibility, extraversion and agreeableness subscales are in high levels, openness to experience, neuroticism and negative valence subscales are in average levels. When the basic personal characteristics of students were examined according to gender, class and sport age significant differences were found.

**Keywords:** Secondary School, Student, Team Sport, Personality Characteristic

### INTRODUCTION

When we examine the impacts of sport on human, its physiological effects are usually the ones catching our eyes in the first place with a high recognition level. Sport's effects on human physiology is a phenomenon put forward by scientific studies and accepted to the extent of leaving no room for doubt. If we look at a broader perspective on sports issues, it will be possible to see that it is not limited to only physiological effects and apart from this, it also stimulates many positive improvements. One of the most important effects is sport's impact on human personality.

Cüceloğlu (1993) defined personality as a consistent and structured behaviour which an individual establishes with his/her internal and external environment while it distinguishes him/her from other individuals. According to Çetinöz, personality is a notion which includes the features of a person's all interests, attitudes, behaviours, skills, style of speech, appearance, and the manner of conformance to his/her environment. A single feature of a person can give somebody clues in recognizing and understanding that person. All of the features such as memory, appearance, resistance length, voice, speech patterns, gestures, the response rate, showing interest to people, nature or machines, and sportsmanship qualities are significant to characterize the person. Briefly, it is possible to see that the innate characteristics of a person and the impact of the environment where the person is situated in exist together (Yelboğa, 2006). From this point of view, it can be concluded regarding the impact of environment that personality reflects not only individual-specific features but also the features of the community being lived in and some common features in all people to a certain extent (Tınar, 1999).

It can assert that sport plays an important role in personality development in the matter of personality development's being under the influence of the environment. It is also a scientifically proven fact that it is possible for the individual to carry out cultural interaction through social and sportive activities, pave the way for participation to dynamic social circles, improve and form oneself through various conversations in the occasions got involved via sport.

Tosunoğlu (2008) stated that sport and other efficient activities offer an unlimited field far from oppression to the person while the working area used to self-actualization prevent freely-developed personality with obligatory rules. Considering sport's effects on personality, the significance of sport becomes obvious in terms of people's personality development. Sport, with this aspect, takes an important place by enabling the individual to engage in dialogue with different environments and people with different point of views through taking the individual out of his/her limited world, getting impressed by them and influencing them (Küçük ve Koç, 2003). Sportive activities make major contributions indisputably to gaining the habit of assuming ones own responsibilities and developing a self-reliant and independent personality (Demirpolat, 1988). Performance and success levels of athletes in terms of personality traits depends on the control of the thought, emotion and mental processes in line with the interaction of body and mind as well as genetic structure and regular training (Syer ve Connolly, 1998). Because sport provides the individual with the opportunity for expressing feelings and self-realization by means of actions and games contained in itself. In addition, individuals learn how to discharge negative motives and also keep them under their control thanks to sport (Öztürk, 1983). However, sport's effects on personality

development may be linked to the sport branch that the individual is interested in. The type of sport branch may affect the individual's psychological and emotional state in respect to various points by reason of the motivation of some psychological characteristics in itself, individual struggle, team spirit, concentration, etc. Along the same line, Singer (1972) pointed out that team sports teach cooperation and individual sports enhance personal discipline. On the other hand, in a study done by Wendt ve Patterson (1974), personality characteristics of team players and athletes engaged in individual sports were examined and no significant difference could be detected. In another study done by Ellison ve Freischlag (1975), the athletes from basketball, baseball, football and athletics (throwing, jumping, short distance and distance runners) and 84 students who were not athletes were included to the research, and no considerable difference could be determined between the athletes and the students who were not athletes in terms of self-sufficiency, introversion, extroversion, neurotic tendencies and confidence variables. In the study done by Tiryaki ve Eğlenoğlu (1991), personality traits of basketball players were examined according to the Eysenck Personality Inventory. The personality traits of forwards, pivots and playmakers were compared in the research done with 48 basketball players in the 17-25 age range and no noteworthy difference could be ascertained.

But in many studies (Erdoğan, 1990, Hasıl and Erden 1992; Koruç and Bayar, 1992; Redman et al., 2002; Tatar et al., 2003, Tosunoğlu, 2008) it has been identified that sport have an impact on personality traits. Tosunoğlu (2008) has found that female athletes show more neurotic tendencies than male athletes and psychotic value of students who play volleyball is lower than in other branches of the athletes. In the neurotic values according to branches, it was found that the highest average of neurotic values have observed in athletes engaged in football branch. Tatar et al (2003) has determined that compared to athletes in other groups footballers are more mild-compatible and have a higher self-control, and footballers are emotionally more consistent than basketball, volleyball and handball players. Furthermore, it was found that football players are more agreeable than basketball, volleyball and handball players; and the players of volleyball, handball and basketball, are closer to the concerns and footballers were found to be more sensitive than other team sportsmen. It was found in the study carried out by Redman et al (2002) that the neuroticism scores of women are significantly higher than men and men are more extroverted than women. Koruç and Bayar (1992) stated that females, who play volleyball, are more adventure-loving, extroverted and they have the ability to get high risk, compared to individuals who do not do sports they have more stringent assessment of judiciary and limited interest. Hasıl and Erden (1992) has found that there are statistically some significant differences between volleyball and basketball players in terms of anxiety, aggressivity and extraversion features and basketball players have more aggressive-extroverted, and volleyball players have more obedient and introverted personality traits. In his work with volleyball players, Erdoğan (1990) stood on gender discrimination and stated that female volleyball players are more outgoing, friendly, caring, stubborn, confident, more depending on the group and sincere than male volleyball players.

Hence when considering the sport's impact on the development of the individual personality it was considered useful to examine this effect. Therefore, in the study it was aimed to put forward the personality traits of middle school students engaged in team sports, in terms of age, sex, class, sports age and branch. According to the obtained results, it will be attempted to reach the information that could indicate the direction of generalizations of temperament and character of the team athletes.

## METHODS

### Study Model

The scan model used in the study. Scan models are research approaches aiming to describe the shape a situation that existing in the past or currently. Events of the research, individual or object, as in its attempt to define conditions and the (Karasar, 2007). In the survey, the differences of secondary school students involved in team sports on personality characteristics and personality traits were examined in terms of variables such as gender, class, age, sport and sport.

### Participants and Procedure

The research group were consisted of 429 licensed athletes in 2013-2014 studying in secondary education and dealing with team sports in Osmaniye ( $M_{age}= 12.68$ ,  $SD=0.99$ ). Descriptive statistics of the study group are shown in Table 1.

**Table 1.** Descriptive statistics regarding the study group

	<b>f</b>	<b>%</b>
<b>Gender</b>		
Female	190	38,2
Male	239	48,1
<b>Grade</b>	<b>f</b>	<b>%</b>
5	132	26,6
6	118	23,7
7	138	27,8
8	41	8,2
<b>Sport age</b>	<b>f</b>	<b>%</b>
Less than 1 year	93	18,7
1-3 year	303	61,0
4-7 year	33	6,6
<b>Branch</b>	<b>f</b>	<b>%</b>
Football	129	26,0
Handball	110	22,1
Basketball	109	21,9
Volleyball	81	16,3
<b>Total</b>	<b>429</b>	<b>100</b>

**Data Collection Tools**

Data was collected from our participants through a “Basic Personality Traits Inventory” which was developed by Gençöz and Öncül (2012).

**Personal Information Form:** This form included items regarding with their age, gender, grade, sport age and sport branch.

**Basic Personality Traits Inventory:** In this research it was used “Basic Personality Traits Inventory” which was developed by Gençöz and Öncül (2012). The scale consist of 45 items and six subscales [(a) Extraversion, (b) Conscientiousness, (c) Agreeableness, (d) Neuroticism, (e) Openness to Experience, (f) Negative Valence]. Sub-dimensions of the scale;

(a). It represents that people are sociable, talkative, friendly, fun-loving and have a social structure (Stevens and Ash, 2001) (i.e.: talkative, sociable)

(b). It refers to plans, patience, motivation and organization in a goal-oriented behavior of people, (Mete, 2006) (i.e.: hard-working, disciplined).

(c). It refers to features of people as good-natured, modest, cooperative, helpful, mature, consistent, flexible, polite, tolerant and sincerity (Somer et al., 2002) (i.e.: sensitive, sharing).

(d). This dimension refers to state of people usually being anxious, insecure, defensive, nervous and anxious (Mete, 2006) (i.e.: brash, aggressive).

(e). It includes properties such as sensitive, flexible, creative, cultural, being intellectual and artistic thinking. Individuals who have these features are quite functional benefits in particular for the organizational change with their creativity (Tathoğlu, 2014) (i.e.: self-confident, broad / free).

(f). It represents the self-attribution of negative characterizations (Fatherland, 2013) (i.e.: contrived, hypocritical).

8 of 45 items in the scale are formed of negative expression. Positive questions of the scale are starting from the expression "Very Convenient" as 5, 4, 3, 2, 1, the negative questions are starting from the expression "Not suitable" scored as 5, 4, 3, 2, 1. The internal consistency of six sub-factors of the scale in the validity and reliability varies between .89 and .71. Total correlation coefficients of sub-factors in itself were between .32 and .77. The test-retest reliability coefficients ranged for the subscales from .71 to .84.

The reliability of the scale was recalculated for this study. Accordingly, the Cronbach alpha reliability coefficients obtained for each subscale were calculated as; "Extraversion, .71", "Responsibility, .73", "Compatibility / harmony, .75", "Emotional instability, .73", "Openness to improvement, .67", "negative valence, .71" and for the whole scale is calculated as .79. According to the results obtained, it is then told the scale is a new highly reliable scale to fulfill the needs.

### Data Analysis

Distribution was examined before the analysis of the data. It was determined by Kolmogorov-Smirnov test with Lilliefors that research data fit a normal distribution. In the analysis of data; student descriptive statistics to identify the personality characteristics (number, percent, mean and standard deviation) were used. As data is normally distributed, unrelated samples t-test was used in order to determine whether there is a significant difference between students' opinions in terms of two groups of variables in order to determine whether there is a significant difference to determine in terms of three or more groups of variables, the one-way analysis of variance (One-Way-Anova) was used. In cases determined a difference in one-way analysis of variance Tukey HSD multiple comparison test were used to determine between which groups have the differences on the specified units. 0.01 And 0.05 significance level were used for the interpretation of the data. The data obtained from the students were analyzed using computers software package program SPSS 18.0.

### FINDINGS

The averages of the students' basic personality traits in the study group are shown in table 2.

**Table 2.** The mean and standard deviation of the basic dimensions of personality traits (N=429)

	Sub Dimensions	M	SD
Basic Personality Traits	Extraversion	26.24	4.730
	Conscientiousness	26.15	3.725
	Agreeableness	30.24	3.472
	Neuroticism	25.07	5.701
	Openness to Experience	18.07	3.284
	Negative Valence	15.26	2.925

As seen in Table 2, when the research group investigated the basic personality traits; extraversion ( $M = 26.24$ ,  $SD = 4.730$ ), conscientiousness ( $M = 26.15$ ,  $SD = 3.725$ ), agreeableness ( $M = 30.24$ ,  $SD = 3.472$ ) were found to have high levels of the scores of the subscales. Besides, neuroticism ( $M = 25.07$ ,  $SD = 5.701$ ), openness to experience ( $M = 18.07$ ,  $SD = 3.284$ ), and negative valence ( $M = 15.26$ ,  $SD = 2.925$ ), while the scores of the subscales were found to be at a moderate level.

### Key Personality Traits According to Gender

The basic personality traits of the students involved in the study group in terms of gender analysis of the comparison results are given in Table 3.

**Table 3.** T-test results of the comparison of the gender variable in terms of basic personality traits dimensions

Dimension	Gender	N	M	SD	Df	t	p
Extraversion	Female	190	26.99	4.341	427	2.945	.003**
	Male	239	25.65	4.946			
Conscientiousness	Female	190	26.08	3.977		-0.377	.707
	Male	239	26.22	3.519			
Agreeableness	Female	190	30.23	3.573		-0.095	.925
	Male	239	30.26	3.398			
Neuroticism	Female	190	24.89	5.439		-0.575	.566
	Male	239	25.21	5.909			
Openness to Experience	Female	190	17.97	3.387		-0.580	.562
	Male	239	18.15	3.204			
Negative Valence	Female	190	15.26	2.991		-0.031	.975
	Male	239	15.27	2.879			

\* $p < 0.05$ , \*\* $p < 0.01$

When examining Table 3, according to the arithmetic mean of the differences between independent samples t-test results; in terms of extraversion subscale scores mean females were found to be higher ( $M = 26.99$ ,  $SD =$

4.341) compared to males ( $M = 25.65$ ,  $SD = 4.946$ ) ( $p < 0.05$ ). Besides, there was no significant difference in terms of gender in the other five subscales scores ( $p > 0.05$ ).

### Key Personality Traits by Grade Level

Analysis results of students in the study samples for the comparison in terms of basic personality traits grade level are given in Table 5.

**Table 4.** One-way analysis of variance (ANOVA) results for the comparison in terms of basic personality traits class variable dimensions

Dimension	Grade	N	M	SD	Df	F	p	Tukey HSD
Extraversion	5	132	25.09	4.609	428	9.239	.000**	5<6, 5<8
	6	118	27.61	4.450				
	7	138	25.63	4.921				7<6, 7<8
	8	41	28.07	3.784				
Conscientiousness	5	132	26.06	3.297	428	8.550	.000**	5<8
	6	118	25.25	4.210				6<8
	7	138	26.32	3.458				7<8
	8	41	28.56	3.406				
Agreeableness	5	132	30.55	2.981	428	3.337	.190	
	6	118	29.43	4.421				
	7	138	30.43	3.061				
	8	41	31.00	2.774				
Neuroticism	5	132	22.15	4.702	428	22.824	.000**	5<6, 5<7
	6	118	27.16	6.252				
	7	138	26.39	5.149				
	8	41	24.00	4.690				8<6
Openness to Experience	5	132	17.93	3.424	428	4.487	.004**	6<7, 6<8
	6	118	17.32	3.317				
	7	138	18.57	2.991				
	8	41	19.02	3.259				
Negative Valence	5	132	15.08	2.968	428	1.743	.158	
	6	118	15.05	2.821				
	7	138	15.73	3.004				
	8	41	14.92	2.925				

\* $p < 0.05$ , \*\* $p < 0.01$

Table 4 shows the results based on one-way analysis of variance that extraversion, conscientiousness, neuroticism, openness to experience were found to significantly differ depending on the sub-dimensions and grade of openness. In agreeableness, and negative valence sub-dimensions, there was no significant difference.

### Basic Personality Traits by Sports Age Variable

Analysis results of the comparison of the basic personality traits of students in the study sample in terms of the sport age variable are given in Table 5.

**Table 5.** Results of one-way analysis of variance (ANOVA) for the comparison in terms of sport age variable dimensions of the basic personality traits

Dimension	Sport age (year)	N	M	SD	Df	F	p	Tukey HSD
Extraversion	Less than 1 (A)	93	25.15	4.144	428	3.319	.037*	A<B
	1-3 (B)	303	26.58	4.815				
	4-7 (C)	33	26.21	5.146				
Conscientiousness	Less than 1 (A)	93	25.91	3.628	428	1.380	.253	
	1-3 (B)	303	26.13	3.704				
	4-7 (C)	33	27.15	4.131				
Agreeableness	Less than 1 (A)	93	29.30	3.900	428	4.501	.012*	A<B
	1-3 (B)	303	30.50	3.314				
	4-7 (C)	33	30.54	3.250				
Neuroticism	Less than 1 (A)	93	25.10	5.663	428	3.102	.046*	
	1-3 (B)	303	25.31	5.575				
	4-7 (C)	33	22.72	6.553				C<B
Openness to	Less than 1 (A)	93	18.03	3.459	428	0.168	.846	



<b>Experience</b>	1-3 (B)	303	18.05	3.258	428	2.033	.132
	4-7 (C)	33	18.39	3.091			
<b>Negative Valence</b>	Less than 1 (A)	93	15.77	3.611	428	2.033	.132
	1-3 (B)	303	15.16	2.695			
	4-7 (C)	33	14.78	2.712			

\*p<0.05, \*\*p<0.01

When examined Table 5; significant differences in the dimensions of extraversion, agreeableness and neuroticism depending on the sport age significant changes were found. In conscientiousness, openness to experience and negative valence subscales located in the basic dimensions of personality traits, there was no significant difference in terms of the age of sport.

### **Basic Personality Traits by Branch Variable**

Analysis results of the comparison of the basic personality traits of students in the study sample in terms of the branch variable are given in Table 6.

**Table 6.** Results of one-way analysis of variance (ANOVA) for the comparison in terms of branch variable dimensions of the basic personality traits

<b>Dimension</b>	<b>Branch</b>	<b>N</b>	<b>M</b>	<b>SD</b>	<b>Df</b>	<b>F</b>	<b>p</b>	<b>Tukey HSD</b>
<b>Extraversion</b>	Football (1)	129	22.10	3.916	428	129.802	.000**	1<2, 1<3, 1<4
	Handball (2)	110	25.19	3.294				2<3, 2<4
	Basketball (3)	109	29.85	3.506				
	Volleyball (4)	81	29.43	2.559				
<b>Conscientiousness</b>	Football (1)	129	26.96	4.475	428	4.275	.005**	
	Handball (2)	110	25.81	3.026				
	Basketball (3)	109	26.28	3.234				
	Volleyball (4)	81	25.19	3.662				4<1
<b>Agreeableness</b>	Football (1)	129	31.21	3.836	428	5.545	.001**	2<1
	Handball (2)	110	29.62	3.466				3<1
	Basketball (3)	109	29.71	3.311				
	Volleyball (4)	81	30.27	2.715				
<b>Neuroticism</b>	Football (1)	129	22.28	4.712	428	23.084	.000**	1<2, 1<3, 1<4
	Handball (2)	110	26.18	4.942				
	Basketball (3)	109	27.74	5.745				
	Volleyball (4)	81	24.40	6.016				4<3
<b>Openness to Experience</b>	Football (1)	129	18.10	3.359	428	2.892	.035*	
	Handball (2)	110	18.03	2.654				
	Basketball (3)	109	18.67	3.576				
	Volleyball (4)	81	17.27	3.409				4<3
<b>Negative Valence</b>	Football (1)	129	14.58	2.933	428	7.577	.000**	1<3
	Handball (2)	110	15.24	2.880				2<3
	Basketball (3)	109	16.31	2.754				
	Volleyball (4)	81	14.98	2.856				4<3

\*p<0.05, \*\*p<0.01

When examining Table 6, in terms of sport in all subscales there were significant differences.

## **DISCUSSION**

### **Results Regarding the Basic Personality Traits of Students**

When the basic personality characteristics of middle school students in the study sample examined, in general, extraversion, conscientiousness, agreeableness features were found to be at a high level. However, students' neuroticism, openness to experience and negative valence characteristics has been identified at a moderate level.

### **Results Regarding the Basic Personality Traits of Students by Gender**

When analyzed the basic personality traits of students by gender, extraversion feature only seems to be higher in female students than male students in terms of the dimensions of extraversion. However, it was seen that both girls and boys showed high levels of extraversion. The obtained findings can be resulted from the students are dealing with team sports. Because athletes in a team are constantly in crowded groups they can be considered as

more social and have many friends. In the study by Bayar (1983) the extraversion levels have been found to be higher in female athletes than male athletes. Again in the study by Koruç and Bay (1992) the female volleyball players are extroverted, adventure-loving, have high ability to take risk, compared to people who do not engage in sports, female volleyball players have been found to be the more solid assessment judiciary and limited interest. In the study carried out by Erdogan (1990), it was found that the female volleyball players are more outgoing, friendly, caring, stubborn, confident, dependent on the group and sincere than male volleyball players. In the study by Redman et al (2002) it was found that neuroticism scores were significantly higher in females than in males, and males show more extroverted property compared to females.

In the studies carried out by Tosunoğlu (2008) and Ulucan and Bahadır (2011) in the level of extraversion of the boys and girls there were no significant differences. In addition, in the other five personality traits of students (conscientiousness, agreeableness, neuroticism, openness to experience and negative valence) there was no significant difference according to gender.

#### ***Results Regarding the Basic Personality Traits of Students by Grade Level***

When the personality traits of students in the study sample according to class variables examined, in extraversion subscale significant differences were seen between the average scores of the sixth and eighth grade students and fifth grade students.

According to this; extraversion level of fifth grade students were found to be lower than sixth and eighth grade students. Between the sixth and eighth grade students with average scores of seventh graders, significant difference was found in the same dimensions. According to this; extroversion level of seventh grade students were found to be lower than sixth and eighth grade students.

In the conscientiousness subscales, no significant differences were seen between eighth graders, and the fifth, sixth and seventh grade students. According to this; the level of responsibility of the eighth grade students were found to be lower than other students.

When the neuroticism subscales of inconsistencies are examined, significant differences between the scores of sixth and seventh grade students with scores of fifth grade students have been identified. Accordingly, the levels of neuroticism instability of fifth grade students were determined to be lower than sixth and seventh grade students. In addition, it was determined that significant differences on the levels of neuroticism instability between the level of sixth graders and eighth graders. According to this; neuroticism instability of sixth graders were found to be higher than eighth grade level students.

When the openness to experience dimensions analyzed, significant difference was found between the level of sixth grade students and seventh and eighth grade students. According to this; the level of openness to the experience of sixth graders levels are lower than seventh and eighth grade students. In agreeableness and negative valence, there was no significant difference.

#### ***Results Regarding the Basic Personality Traits of Students by Sport Age Variable***

There was significance difference on the sub-dimension of extraversion of the students in the study sample in terms of sport age variable. Accordingly, extraversion sports scores levels of students with 1-3 years sports age are higher than those students who are less than 1 year. In agreeableness located in basic personality traits significant differences have been found (Table 6). According to this; compatibility / compatibility level of the sports age of students is less than 1 year is lower than 1-3 sports age students. When the neuroticism subscale examines, significant differences were found in terms of age of sports. In line with these findings, neuroticism level of the 4-7 age students is lower than students whose sport ages are 1-3 years. In the subscale of conscientiousness, located in the basic dimensions of personality traits, the openness to experience and negative valence there was no significant difference in terms of age of the sport.

#### ***Results Regarding the Basic Personality Traits of Students by Branch Variable***

In the dimensions of extraversion, scores of students dealing with football are determined to be lower than for students dealing with handball, basketball and volleyball. In addition, the students engaged in handball, were found to be based on the lower level of extroversion than students dealing with basketball and volleyball branches. In conscientiousness sub-dimension, the conscientiousness level of volleyball players was determined to be at a lower level than the football players. Dimensions of agreeableness level of students dealing with football were found to be at a higher level than students dealing with basketball and handball branches. In neuroticism instability sub-dimension, neuroticism instability levels of students dealing with football were lower

than those students dealing with handball, basketball and volleyball, in addition, the neuroticism inconsistency level of students dealing with basketball was determined to be higher than those of students dealing with volleyball. In openness to experience sub-dimension, the openness to experience level of students dealing with basketball was found to be higher than students dealing with volleyball. In the negative valence sub-dimension, negative valence levels of students dealing with basketball were found to be higher than for students dealing with handball, football and volleyball.

In the study carried out by Hasil and Erden (1992), statistically significant differences between volleyball and basketball players were observed in terms of extraversion, anxiety, and aggression characteristics. In this context, when determining the basketball players are more aggressive and extroverted, it has been found that volleyball players have more obedient and introverted personality traits. In the study conducted by Tatar et al (2003), footballers compared to athletes in other groups are more mild-compatible, and more self-controlled whereas football players were found to be emotionally more consistent than those who play volleyball and handball.

Furthermore, football players were found to be more accommodating than basketball, volleyball and handball players; basketball, volleyball and handball players were found to be closer to the concerns than football players and the football players were found to be more sensitive than other team sports. In the study, Tosunoğlu (2008) have found that female athletes show more neurotic tendencies than male athletes. Psychotic values of volleyball players are lower than athletes in other branches. In the neurotic values, according to branches the highest averages were found in athletes engaged in football. Branches have also been compared by gender and neurotic score of female basketball players has been found to be higher than that of males playing basketball. In volleyball psychotic value of male athletes was found to be higher than the females playing volleyball. In handball, psychotic value of female athletes is higher than male handball players. In the studies carried out by Ellison and Freischläger (1975), Yazıcı (1999) and Tosunoğlu (2008), in the levels of extraversion of the athletes significant differences were found by depending on the branch.

## CONCLUSION

As a result, overall extraversion of the students involved in the study sample, extraversion, conscientiousness and agreeableness features at a high level; emotional instability, negative valence and openness to improvement characteristics have been identified at a moderate level. Also, when students' basic personality traits were analyzed according to gender, extraversion feature only seems to have a higher in female students than males in terms of the dimensions of extraversion. However, conscientiousness, agreeableness, neuroticism and negative valence dimensions, there was no significant difference regarding the gender. When personality traits of students in the study sample according to class variables were examined; significant differences in extraversion, conscientiousness, neuroticism and openness experience depending on the class of variable dimensions have been identified. There was no significant difference in agreeableness, and negative valence dimensions. When the personality traits according to sporting age of students variable were analyzed, significant difference was seen in the extraversion, agreeableness, and neuroticism dimensions; there was not any significant difference in conscientiousness, the openness experience and negative valence dimensions in terms of the sports age.

In terms of sport branch that they have made, a significant difference in students' personality traits was seen in all subgroups. According to this; levels of extraversion of students dealing with football, has been determined to be lower than those of students in dealing with basketball and volleyball. In addition, extraversion level of students dealing with handball branch has also been shown to be at a lower level than students in dealing with basketball and volleyball. In addition, the level of conscientiousness of volleyball players was determined to be at a lower level by the football players. Agreeableness level of the students dealing with football was found to be at higher levels than students dealing with handball and basketball branch. In the dimension of neuroticism, emotional instability levels of students dealing with football is lower than the students dealing with handball, basketball and volleyball, also it is the neuroticism level of students dealing with basketball branch was determined to be higher than for students dealing with volleyball. Students dealing with basketball branch are determined to have a higher level of openness experience compared to students dealing with volleyball. In negative valence dimensions negative valence levels of students dealing with basketball was found to be higher than for students dealing with handball, football and volleyball.

This study is important to recognize the personality traits of the athlete by physical education teachers and coaches. While planning the training, in terms of being more accurate and more efficient consideration of the study of athletes' personality traits can constitute a resource for coaches and physical education teachers. Get to know the personality traits of athletes for coaches and athletes can provide a more accurate communication. In

terms of development of personality of the students in a positive direction, they can be directed to the sports. In addition, physical education teachers have an idea that on what sport can also be more appropriate for the students based on the personality traits of students. However, in order to determine personality traits of students studying at junior high school and dealing with team sports, it is needed more study to be carried out with the students in the different samples.

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## The Enhancement Of Horizontal And Vertical Ability And Its Application Examples

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**Abstract:** In this study, the enhancement of horizontal and vertical jump ability and its application examples are presented with the literature review.

The study has the characteristics of a compilation which contains the studies in the existing literature conducted related to horizontal and vertical jumps. All publications in the literature such as books, articles, reports or scientific posters are used for the sake of the study. The information obtained from the literature is the data of the study and it is presented in the results part.

The studies carried out in the recent 10 years indicate that not only the explosive power exercises but also plyometrics studies have a positive impact on jumping force (Ardıçlı, 2005; Ateş, Ateşoğlu, 2007; Ateşoğlu, 2002; Kutlu et. al, 2001, Markoviç et. al, 2007; Şahin, 2008).

However, conducted studies bring along some recommendations for further research on plyometrics exercise. Yet, the fact that one needs to take some technical phenomena into consideration in addition to meeting some necessary training conditions in order to become ready for the plyometrics exercise is emphasized in various studies.

**Key words :** Plyometrics, explosive power, vertical jump, horizontal jump

### INTRODUCTION

While being successful in sports is based on many factors in today's world, improvements which are quite different in terms of structure affect training and correspondingly the performance when the performance dimension is examined. In many sport events, bounding trainings taking part in practice also form a part of tendency to the performance. Nowadays, there is hardly any sport event that does not need a good jumping ability and jumping power. Particularly basketball, volleyball and the jumping events of athletics along with the events such as soccer, handball, gymnastics, and figureskating are the events which need a good jumping qualification. As for a good jumping, high jumping power and explosive power are needed.

There are lots of factors of developing these qualifications in terms of training. Power, maximal power, explosive power and ultimately plyometric exercises emerge as major training practices in improving jumping power. In this study, the development of horizontal and vertical jumping ability and application examples will be presented via literature review and the information about by which application the improvement in jumping is executed most will be given.

### THE STUDY

#### Data Collection Procedure

The study has the characteristics of a compilation and it includes the publications related to horizontal and vertical jump taking part in the literature. All written publications such as:

- Book,
- Article,
- Report,
- Scientific Poster etc. are utilized.

#### Data Analysis

The information obtained from the resources in the literature is the data of the research and it is presented in the findings section.

### FINDINGS

In his research conducted in 2002, on horizontal and vertical jumping exercises performed with the help of case and barrier towards high jumping, Bayraktar (2012) stated that horizontal and vertical jumping exercises performed by the help of case and barrier are possible to be diversified by the trainer toward the way he needs, and emphasized that the distances between case and hurdle height, and case and hurdles are supposed to be determined by considering the severity and density of the current training period as well as the athlete's basic motoric qualifications (Bayraktar, 2002).

Bayraktar also created a diversification about following training applications at the advices on bounding in his research (Bayraktar, 2002):

1. Athlete standing on two feet on the ground (his feet opened in the act of shoulder width) mounts onto the case with an explosive leap and makes a soft fall on two feet on the ground without any pause (towards the region he began to jump). Without any pause between repetitions, he flowingly continues the exercise until he reaches the desired number of repetition (Bayraktar, 2002) .

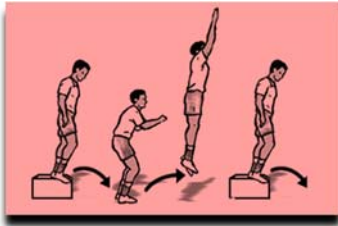


Figure-1: Case Jumping



Figure-2: Hurdle Jumping

2. Athlete standing on one foot on the ground mounts onto the case with an explosive splash and makes a soft fall with his foot he bound without halting (towards the region he began to bound). Without any pause between repetitions, the exercise proceeds until the intended number of repetition is reached. This exercise is performed with both the right and the left foot (Bayraktar, 2002) (Figure-2).
3. Athlete standing on two feet on the ground (his feet opened in the act of shoulder width) mounts onto the case with an explosive leap and again he made an explosive vertical jump on the case without any pause. The athlete landing on the ground secure and safe in a passive state from the case takes his place in front of the case for the next repetition and he flowingly continues the exercise until he reaches the desired number of repetition (Bayraktar, 2002).
4. Athlete standing on one foot on the ground mounts onto the case with an explosive leap with the same foot and again he made an explosive vertical jump on the case without any pause. The athlete landing on the ground safely in a passive state takes his place in front of the case for the next repetition and the exercise proceeds until the desired number of repetition is accomplished. The exercise is practiced both via left and right foot (Bayraktar, 2002) .
5. Athlete standing on two feet on the case mounts onto the other case with an explosive leap – without any pause – after the fall on the ground with two feet and again he made an explosive vertical jump on the case without any pause (As in the exercise 3, the cases can be utilized dually and the exercise proceeds until the desired number of repetition is accomplished (Bayraktar, 2002).



Figure-3: Case Jumpings

6. Athlete standing on one foot on the case mounts onto the other case with an explosive leap – without any pause – after the fall on the ground with same foot and again he made an explosive vertical jump on the case without any pause. The cases can be utilized dually and the athlete flowingly continues the exercise until he reaches the desired number of repetition. This exercise is performed with both the right and the left foot (Figure-3-4) (Bayraktar, 2002).
7. Athlete standing on two feet on the case clears the hurdle with an explosive leap – without any pause – after the fall on the ground on two feet. When he touches on the ground, again he mounts onto the case with an explosive leap and he flowingly made a vertical jump on the case. He flowingly continues the exercise until he reaches the desired number of repetition (Bayraktar, 2002).

8. Athlete standing on one foot on the case clears the hurdle with an explosive leap – without any pause – after the fall on the ground with the same foot. When he touches on the ground, again with the same foot he mounts onto the case after an explosive leap and he flowingly made a vertical jump on the case. The exercise proceeds until the desired number of repetition is accomplished. The exercise is practiced both via left and right foot (Bayraktar, 2002).



Figure-4: Case Jumps (At ascending height)

9. Athlete clears the specific number of hurdles determined by the trainer with two feet jump. The exercise is done through a smooth integrity without any pause. After the last hurdle is cleared, the athlete finalizes the series with a vertical jump. The exercise proceeds until the intended number of repetition is reached (Bayraktar, 2002).
10. Athlete clears the particular number of hurdles decided by the trainer by hopping on one foot. The exercise is done in a smooth harmony without any break. After the final hurdle is cleared, the athlete finishes the series with a vertical jump. The exercise proceeds until the desired number of repetition is accomplished. The exercise is practiced both via left and right foot (Bayraktar, 2002).
11. Athlete clears the specific number of hurdles determined by the trainer by hopping on one foot in a smooth harmony non-stop. He uses the same foot to jump among the hurdles and finalizes the series with a vertical jump after the final hurdle is cleared. The exercise proceeds until the intended number of repetition is reached. The exercise is performed both via left and right foot (Bayraktar, 2002).

Öner also refers to various types of exercise samples while emphasizing the working principles of plyometrics exercises in one of the studies conducted related to plyometrics. Regarding the jumps, he puts into practice the lateral jumps repeated over a bank in addition to the horizontal and vertical jumps. In one of the studies carried out in Antalya with the participation of 49 male high school students, whose ages from 14 to 16, which method of exercise among the explosive power exercises conducted with isotonic muscle movements shows more progress within the same period of time is examined. Moreover, the impact of explosive power on the jump performance is evaluated. Throughout the study lasting 8 weeks, the first group is trained via eccentric muscle exercise method. While the second group is trained by using concentric method of muscle exercise, the third group is trained via protraction-contraction loop method of exercise. At the end of the study, Hindistan et. al point out that the protraction-contraction loop group indicates the maximum increase in the level of vertical jump height, which is the indicator of explosive power. Even though an improvement in the calculation of anaerobic power capacity is estimated in terms of all groups, it is emphasized that the group training with protraction-contraction loop method of exercise indicates approximately twice as much progress (Hindistan et. al, 1999).

Bompa, who is one of the famous sports scientists, points out that the stiff muscle before contraction creates more power in his studies (Bompa, 2001).

In the study conducted to find out the impact of warm up in low or moderate level half-squat movement on the vertical jump, Konstantinos et. al state that such kind of study enhances the multiple jumps (Konstantinos et.al, 2010).

Moreover, in the study carried out by Markoviç et. al, 93 female volunteers are divided into 3 groups, and all groups practice three different training programs, which are sprint, plyometrics and control. Throughout the program lasting 10 weeks, pre and post-tests in terms of maximal isometric squat power, squat and multiple jumps, stature and strength, free fall force from 30 centimeters, standing long jump, 20 meters sprint and 20



meters shuttle run are conducted. Both experimental groups are trained three times a week. Whereas sprint group performs 10-50 meters maximal run, plyometrics group practices hurdle jump and free fall jump. (See Table-3) On the other hand, control group performs their own physical training programs throughout the study. At the end of the study, 15.6% and 14.2% significant progress is seen in falling jumps of sprint group and plyometrics group respectively. While they also indicate 10% and 6% increase again respectively in squat and multiple jumps, this progress becomes 3.2% and 2.8% in long jump. Furthermore, another significant point in the study is the fact that sprint group indicates 10% isometric squat progress. As for the most significant suggested point at the end of the study, sprint trainings made in the short term provided development in terms of muscle function as much as the common style plyometric trainings or more than that (Marković et. al, 2007) (Table 1).

**Table-1: The training schedule Marković et. al, applied in their studies<sup>14</sup>**

Week	Plyometric Group (PG)	Sprint Group (SG)
1	40cm. barrier x 5x 10	10m. sprint x 3 x 3
2	40cm. barrier x 7x 10	10m. sprint x 4 x 3
3	40cm. barrier x 10x 10	20m. sprint x 3 x 3
4	60cm. barrier x 5x 10	20m. sprint x 4 x 3
5	60cm. barrier x 7x 10	30m. sprint x 3 x 3
6	Rest	Rest
7	60cm. barrier x 10x 10	30m. sprint x 4 x 3
8	40cm. barrier x 4x 10	40m. sprint x 3 x 3
9	40cm. barrier x 4x 10	40m. sprint x 4 x 3
10	40cm. barrier x 4x 10	50m. sprint x 3 x 3
11	40cm. barrier x 4x 10	50m. sprint x 4 x 3

In a study by Jay et. al, conducted within 8 weeks on two groups, at the exercises made by “Osmanlı güllesi” (Kettlebell) three times a week, it is emphasized that there is one and a half cm development in jumping at the experimental group while some injury-preventative accentuations are made at the lower body (Jay et. al, 2013).

At the study of Vaczi et. al, short-term and high density; force, power and mobility-based training load which they made on male soccer players, experimental and control groups are formed. Plyometric training is executed with the experimental group within 6 weeks. Horizontal and vertical 40-100 leaping applied periodically twice a week is utilized in every training unit. As pre-test and post-test, depth jumping height, dual dynamism (İllionis, T test), maximal isometric torque knee opener (Multicont II) tests are implemented. At the end of the study, in the experimental group, despite of each dual dynamism application developing little but significantly, depth jumping and isometric torque developed more. As for the control group, it could not be found any salient development (Vaczi et. al, 2013).

In the study conducted by Balsalobre et. al with the participation of 7 elite 400 meters-hurdle race sprinter for 10 weeks, the impact of power training bicycle on maximum strength, maximum power, vertical jump height and acceleration is examined. Within the training load carried out twice a week, in each unit the athlete is required to perform 8 jump squats consisting of 5 sets in which he/she can use his/her own maximum power. Half-squat, maximum power in jump squat, squat jump, multiple jump and standing 30 meters-sprint are used with pre and post-tests. While the results indicate 7.9% increase in half-squat and 2.3% increase in jump squat, there is 1.43% decrease in 30 meters-sprint (Balsalobre et. al, 2013).

In the study carried out by Ateşoğlu with the participation of 37 students studying in the school of physical education and sports, the participants are divided into 4 groups, which are Own body weight (A) (n=9), Power vest (B) (n=10), Sand bag (C) (n=9) and Control group (D) (n=9). Whereas the experimental group is trained with 10% additional load to their own body weight, group B is trained by making them wear power vests. Group C is trained via attaching sandbags to their feet. On the other hand, the group A does not utilize any weight. The experimental groups perform plyometrics exercises for 30-40 minutes three times a week throughout 8-week period. Along with physical and physiological characteristics before and after the study, horizontal and vertical jump test is applied with pre and post-tests. At the end of the study, in the plyometrics exercises performed via own body weight and additional load, there seem to be significant differences also containing vertical and horizontal jumps when the results of the groups are compared themselves (Ateşoğlu, 2002).

In the study of Kutlu et. al, in which 34 junior football player and 17 people not doing exercise participate, the impact of plyometrics exercise on the anaerobic power of junior football players is investigated. 17 volunteer junior football players who play in Elazığ amateur league are trained with plyometrics exercise including their own training program. Moreover, 17 football players from another team and 17 sedentary people are regarded as control group. Experimental group is trained via plyometrics training program for average 30-40 minutes twice a week throughout 3 months. In addition the anthropometric measurements before and after the study, vertical jump, wingate, Margaria-Kalamen anaerobic test, 45 meters-sprint and leg strength measurements are carried out. It is reported that the measurements and evaluations at the end of the study seem to indicate a significant alteration,  $p < 0,01$ , in the vertical jump level of plyometrics training group together with some other parameters (kutlu et. al, 2001).

In the study conducted with the participation of 12 experimental and 12 control groups which contain 24 male football players ranging from 16 to 18 years of age by Ateş and Ateşoğlu for 10 weeks, experimental groups are required to perform plyometrics exercise for 30-45 minutes twice a week. In the pre and post-tests of the study, horizontal and vertical jump levels are also investigated. Considering the results of the study, while it is pointed out that there is a significant progress in the level of vertical jump like  $p < 0,01$  together with some other values, no other progress in terms of horizontal jump is reported (Ateş, Ateşoğlu, 2007).

In the study that Şahin carried out among 36 volunteers whose ages ranged between 17 and 19, he made 12 athletes practise the quick power and technical training, 12 athletes practise the power maintenance and technical training and made the rest 12 athletes continue only their technical training aimed at hockey. Before and after the eight week-long trainings, the pre-tests and post-tests were applied to the athletes. The vertical jump test was also included in the study in the tests where some parameters were used. The quick power training and power maintenance training that was used in the study are indicated in the table below (Şahin, 2008) (Table-2).

**Table-2: The quick power and power persistence training schedule Şahin applied in his study.**

	Quick Power Exercise	Power Persistence Exercise
Goal	Enhancement of quick power	Enhancement of power persistence
Loading	40%-60% of maximal power	20%-40% of maximal power
Repetition	10-20	20-40
Series	First 2 weeks 2 sets and following weeks 3 sets	First 2 weeks 2 sets and following weeks 3 sets
Pace	Explosive	Moderate
Recess	Full time	Full time

In a study that he carried out on 36 footballers whose age group is between 15-16, Ardiçlı formed a 12-person plyometrics group and 12-person control group in addition to a 12-person weight training group. In addition to a 8-week long football training, he made the plyometrics group practise plyometrics training and weight group practise weight training. In accordance with the information that he received as a result of an eight-week training, Ardiçlı determined that there was an improvement in the vertical and horizontal jumps of plyometrics and weight training groups. Besides, a statistically significant difference in terms of vertical jump test was found out between groups in this study (Ardıçlı, 2005).

## CONCLUSION

The fact that quick power training had an impact on jumping strength was emphasized by one of the trainer experts named Letzelter. The fact that power maintenance trainings also had an impact on jumping strength was also suggested by the same researchers (Dündar, 2007).

The studies that have been carried out in the past ten years indicated that not only the quick power trainings but also the plyometric practises have positive effects on jumping strength (Ardıçlı, 2005; Ateş, Ateşoğlu, 2007; Ateşoğlu, 2002; Kutlu et. al, 2001, Markoviç et. al, 2007; Şahin, 2008).

However, the studies that were conducted bring along some suggestions for the plyometric training as well. Because, in addition to an obligation to fulfill some training conditions so as to get ready for plyometric trainings, the fact that some technical facts should also be paid attention to was emphasized by various studies.

Some disadvantages of plyometric trainings that provide the maximum development in jumping bring along some hazardous circumstances. From this viewpoint, the following conditions should be taken into account:

1. The jumping height and the number of jumps that exceed the capacity of the athlete.
2. Inappropriate ground for plyometric training
3. Athlete lacking enough power training
4. The fact that the athlete who didn't complete his/her physical development,
5. Selecting wrong shoes,
6. Violating the management and working principles of plyometric training.

Various studies draw the attention to the fact that the training supported by plyometrics trainings or plyometric trainings have impact on vertical and horizontal jumpings (Ardıçlı, 2005; Ateş, Ateşoğlu, 2007; Ateşoğlu, 2002; Kutlu et. al, 2001, Markoviç et. al, 2007; Şahin, 2008).

In addition to these, some other studies provide recommendations that the weight training as well as plyometric trainings have positive effects on the development of vertical and horizontal jumping (Ateşoğlu, 2002; Ardıçlı, 2005).

The researchers also shared some training practises in some studies in which they passed several judgments. In a study that was carried out by Markoviç et. al, some 93 females who were volunteers divided into three groups and three different training programs respectively being sprin (SG), plyometry (PG) and control (CG) ere implemented to the groups. Before and after the program that lasted 10 weeks, maximal isometric squat force and squat and multi-jump, stature and power, the force of free fall from 30 cm-high, fixed long jump, 20m sprint, 20m. Shuttle run were tested. Both of the test groups were subjected to training for three days in a week; while making a SG 10-50-meter long run, they made PG Show jumping and free fall jump. And CG practised its own physical trainings during the study. As a result of the study, it was seen that there was a considerable development in the free fall forces of SG and PG, which were 15.6 % and 14.2 %. While this number reached 10 % and 6 % in squat jump and multiple jumping, there was an improvement of 3.2 % and 2.8 % in the long jump. Another point that draws attention within the study is that SG showed a 10 % isometric squat development. The most important emphasis that was made as a result of the study is that the so-called spring trainings that are practised in short terms showed a development in terms of muscle function as much or more as the well-known plyometric trainings (Markoviç et. al., 2007) (Table-3).

In the study conducted by Şahin with the participation of 36 participants whose ages range from 17 to 19, 12 athletes are trained with quick power and technical exercises. While 12 athletes are required to perform power persistence and technical exercises, the rest 12 athletes perform only technical exercises related to hockey. Before and after the 8-week training, athletes are tested by using pre and post-tests. The perpendicular jump test is also included in the study with the tests which contain some parameters (Şahin, 2008).

The quick power and power resistance exercises utilized in this study are as follows in the table.

The practices addressed in the study are as follows:

- Triceps extension with dumbbell
- Squat
- Lateral bending
- Spreading two arms
- Wrist training
- Squat move

Regarding the results of the study, it is emphasized that there seems to be no significant change in quick power and power persistence groups.

One of the prominent figures in training science, Bompa suggests that the intensity classification of plyometrics exercises be maximum as training intensity in high reaction jumps (60cm.) in terms of application, it needs to be

extremely high in landing jumps for 80-120 centimeters. Moreover, Bompa recommends that the intensity classification of plyometrics exercises is under the maximum in two feet jumps and hopping on one foot whereas the training intensity becomes low in low reaction jumps. On the other hand, regarding the repetition number in a training unit, Bompa recommends that it should be 120-150 for high reaction jumps, 75-100 for landing jumps, 50-250 for two feet jumps and hopping on one foot and 15-250 for low reaction jumps (Bompa, 2001).

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