

# The Effect of Primary School Students' Participation in Active Games involving Physical Movement on Life Satisfaction

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## Abstract

This study intends to determine the impact of the participation of second grade elementary school students in games involving physical activities on their Life Satisfaction. The sample of the study consisted of 706 students in 6 primary schools in the province of Gaziantep in the academic year 2016-2017.

The "Playfulness scale" was used in order to determine the students' attitudes towards playing games with physical activity, and the "life satisfaction scale" was used to assess their impact on the satisfaction they get from life. The playfulness scale was developed by Hazar (2015) while the Life Satisfaction Scale used in the study is the one translated by Sevil (2015) into Turkish.

Statistical analyzes were performed on the data obtained in the study by using the SPSS 22.0 package program. In the evaluation of data, frequency, percentage, mean, standard deviation were used while the Kolmogorov-Smirnov test was used in the conformity check of continuous variables to normal distribution. The Student T-Test was conducted to compare the two independent groups of variables with normal distribution, and the ANOVA and Tukey multiple comparison tests were conducted for the comparison of more than two independent groups of variables and the correlation between the numerical variables was tested through Correlation analysis.

According to the findings; 73.4% of the participants were in the age bracket of 11-12 years (518 people) and 26.6% were between the ages of 13-14 (188 people). 58.9% were female (416 people) and 41.1% (290 people) were male and 51.1% of them were in the 5th grade (354), 22.7% in the 6th grade (160 people) and 27.2% (190 people) in the 7th grade. It was established that there was a significant difference between the ages of the students in the Playfulness Scale and the Life Satisfaction Scale; between the students' grades in the Playfulness Scale and the Life Satisfaction Scale as well as a low degree of meaningful relationship between the Playfulness Scale and the Life satisfaction scale.

**Key words:** Physical Activity, Game, Attitude, Life Satisfaction.

## INTRODUCTION

The game, which was thought to exist before the achievable records of human history, can be said to be a phenomenon that has many functions such as maturing, acquiring skills, socializing, self-expression, self-healing, transferring cultural heritage and having fun.

Games have an important place in human lives, starting from birth and continuing across the human lifespan. What really changes is how the games are played. Playing games is fun and gives people joy. Games help players build a bridge between their inner world and the external social world and they contribute positively to development (Engin, Seven and Turhan, 2004; Ersan, 2006; Gazezoglu, 2007; Ozdogan, 2000; Sevinc, 2004).

Games are fun activities that involve certain skills and intelligence which are played during leisure times according to certain rules in a certain place and time whereby people put to use their physical and mental skills to fulfill the game's objectives (Hazar, 2000).

Games refer to voluntary movements or activities performed freely within a certain place and time period according to certain binding rules (Huizinga, 1951). Games are a way of dealing with stress (Barnett and Storm). They are effective assistants in learning. There are no time and space limitations with games (Georges, 2007). Games optimize the motivation of their players (Nikfarjam, 2012). Games are a way of relaxing, getting rid of excess energy, and meeting physiological needs (Razon, 1985). Games are spontaneous activities that are performed freely and they bring joy and contribute positively to life satisfaction (Basal, 2007).

Games have a great role in learning and personal development and they bring health and happiness and promote creativity (Isenberg and Jalongo, 2001). Thanks to games, individuals make contact with society and the social world. Individuals learn to perform more complex body movements while learning how to live in harmony within their social environment (Anderson, Miles, Mahoney and Robinson, 2002; Tkachuk, Leslie-Tosgood and Martin, 2003).

To sum up, learning with games increases the self-confidence of children, improves their problem solving skills and makes them better able to cope with issues; in addition, the entire body, all the muscles and the skeletal system work during a game and games allow children to become more sociable by giving them a better understanding of the environment in which they live. With games, children improve their social relationships. Games are critical for the learning process of children. Children can learn many things playing games while simultaneously being prepared for their future lives. Children playing games that involve physical movement make important progress in terms of what has been cited above and the games contribute positively to their life satisfaction levels.

## MATERIAL AND METHOD

In this section, the study model, study population, and data collection tools used in the study as well as the statistical methods used in analyzing the obtained data will be presented.

## Experimental Design

The relational screening model was used to determine the attitudes of students in the second level of primary education (5th grade, 6th grade and 7th grade) towards playing games that involve physical activity and their impact on their life satisfaction levels. The relational research model is used to determine relationships between variables and to predict possible outcomes. The relationship between two or more variables is measured using statistical tests (Ersöz, 2016). The screening model tries to make sense of events by looking at the circumstances under which they take place, investigating their characteristics, and determining the relationship between them rather than dwelling on their causes (Kaptan, 1995).

## Study Population and Sample

The study population consists of students from different schools in the Gaziantep Province in the academic year 201-2017. The number of university students included within the scope of the study is shown in Table 1.

The random sampling method has been used in the sample selection. Random sampling is the sampling method in which each person in the study population has an equal chance of being selected (Arli and Nazik, 2004). Through random sampling, 706 students were included in the sample.

**Table 1.** Personal information relating to the study group

Variable	Groups	N	Percentage (%)
Gender	Female	416	58.9
	Male	290	41.1
Age	Ages 11-12	518	73.4
	Ages 13-14	188	26.6
Grade	5th Grade	354	50.1
	6th Grade	160	22.7
	7th Grade	192	27.2
n=387			

Table 1 shows the personal characteristics of the study group and the distribution of responses to the related questions. Accordingly, 58% of the participants are female (416 people) and 41.1% are male (290 people); 73.4% of the participants (the majority) (518 people) are between the ages of 11-12 while 26.6% (the minority) (188 people) are in the age bracket of 13-14; 5th grade students make up the majority of participants with 50.1% (354 people) while 6th grade students are the minority with 22.7% (160 people).

## Preparation of the Data Collection Tool

The "Playfulness Scale" developed by Hazar (2013) and the "Life Satisfaction" scale translated into Turkish by Sevil (2015) were used to determine the attitudes of 5th, 6th and 7th grade students towards Playing Games that Involve Physical Activity. The playfulness scale consists of 5 sub-dimensions, namely Passion for Games, Risk Taking, Social Adaptation, Willingness to play games and Enjoying oneself and 20 questions. The "life satisfaction" scale consists of 5 questions. The items in the scale were evaluated using a 5 point Likert scale.

## Data analysis

SPSS for Windows 22 suite was used for the analysis of the study. In the study, the "KMO" analysis has been performed to test the sample size. Accordingly, it was seen that the KMO test was greater than .60 (Playfulness Scale 0.764, Life Satisfaction 0.858) and the Bartlett test was

significant ( $p < 0.001$ ). Therefore, the sample is sufficient and the existence of a structure is detectable.

The Kolmogorov-Smirnov test was used in the conformity check of continuous variables to normal distribution for data analysis. The t test was used to compare two independent groups of variables with normal distribution, and ANOVA and Tukey multiple comparison tests were used for variables with normal distribution in the comparison of two independent groups, and frequency, percentage and mean and standard deviation values were given as descriptive statistics.  $P < 0.05$  was accepted as significant in the statistical analyzes performed in the

## RESULTS

The t-test was used to determine whether the scores of the students participating in the study differed significantly according to their age from the Playfulness Scale and Life Satisfaction Scale

**Table 2.** Comparison of Gaming and Life Satisfaction Scales by Age

Factor	Age	N	Mean	SD	t	p
Passion for Games	Ages 11-12	518	3.12	0.91	7.23	0.00*
	Ages 13-14	188	3.64	0.84		
Risk taking	Ages 11-12	518	3.21	0.97	2.52	0.01*
	Ages 13-14	188	3.40	0.88		
Social adaptation	Ages 11-12	518	1.56	0.59	0.98	0.34
	Ages 13-14	188	1.60	0.55		
Willingness to play games	Ages 11-12	518	1.95	0.76	4.70	0.00*
	Ages 13-14	188	2.26	0.74		
Enjoying oneself	Ages 11-12	518	2.14	0.79	3.79	0.00*
	Ages 13-14	188	2.40	0.78		
Total Game	Ages 11-12	518	2.42	0.60	5.66	0.00*
	Ages 13-14	188	2.69	0.53		
Life satisfaction	Ages 11-12	518	2.06	0.69	2.07	0.02*
	Ages 13-14	188	2.22	0.94		

n =70

When Table 2 is examined, there is a statistically significant difference between the total points from the Playfulness Scale and the points from the sub-sets of Passion for Games, Risk Taking, Willingness to play games, Enjoying oneself and Life satisfaction while no such difference exists with regards to the subset of Social adaptation in the Playfulness scale according to the age variable. According to these results, it can be seen that

Primary School Students participate more in Games Including Physical Activity as they grow older whilst their life satisfaction also increases.

Anova test was performed to determine whether the scores of the students participating in the study from the Playfulness Scale and Life Satisfaction Scale differ significantly according to their age. Tukey multiple comparison tests were used to determine the differences between the groups.

**Table 3.** Comparison of Gaming and Life Satisfaction Scales by the Grade Variable

Factor	Grade	N	Mean	SD	F	p	Significant Difference
Passion for Games	5th Grade (a)	354	3.10	0.90	26.9	0.00*	a<c, b<c
	6th Grade (b)	160	3.12	0.88			
	7th Grade (c)	192	3.66	0.87			
Risk taking	5th Grade (a)	354	3.13	0.99	7.51	0.01*	a<b, a<c
	6th Grade (b)	160	3.35	0.83			
	7th Grade (c)	192	3.43	0.92			
Social adaptation	5th Grade (a)	354	1.56	0.57	1.99	1.37	
	6th Grade (b)	160	1.65	0.72			
	7th Grade (c)	192	1.54	0.46			
Willingness to play games	5th Grade (a)	354	1.88	0.74	18.5	0.00*	a<c, b<c
	6th Grade (b)	160	2.05	0.72			
	7th Grade (c)	192	2.29	0.77			
Enjoying oneself	5th Grade (a)	354	2.10	0.74	11.5	0.01*	a<c, b<c
	6th Grade (b)	160	2.18	0.86			
	7th Grade (c)	192	2.44	0.77			
Total Game	5th Grade (a)	354	2.38	0.56	18.1	0.00*	a<c, b<c
	6th Grade (b)	160	2.49	0.58			
	7th Grade (c)	192	2.69	0.59			
Life satisfaction	5th Grade (a)	354	2.01	0.66	5.98	0.02*	a<c
	6th Grade (b)	160	2.16	0.77			
	7th Grade (c)	192	2.23	0.91			

**Table: 4.** Correlation Table for Life Satisfaction Scale, Gaming Scale and their Sub-Sets

	n	r	p
Passion for Games	706	0.168	0.000**
Risk taking	706	0.152	0.000**
Social Adaptation	706	0.199	0.000**
Willingness to Play Games	706	0.226	0.000**
Enjoying oneself	706	0.224	0.000**
Total Game	706	0.253	0.001**

p<0.05

When Table 3 is examined, there is a statistically significant difference between the total

Correlation analysis was conducted to test whether there was a relationship between life satisfaction and playfulness characteristics of the students. p<0.05

When Table 4 is examined, a positively low correlation was observed between the Life Satisfaction Scale score and the Playfulness Scale and its sub-sets. According to this result, the participation of primary school students in active games involving physical movement has a positive impact on their life satisfaction. It was established that students participating in games that involve

points from the Playfulness Scale and the points from the sub-sets of Passion for Games, Risk Taking, Willingness to play games, Enjoying oneself and Life satisfaction while no such difference exists with regards to the subset of Social adaptation in the Playfulness scale according to the age variable. According to these results, students in the 7th grade received higher scores in the subsets of

Passion for Games, Risk Taking, Willingness to play games, Enjoying oneself and the Playfulness scale indicating that they play more games than 6th and 5th grade students and that 7th grade students have a higher level of life satisfaction than 5th grade students.

physical activity have most of their life expectations met, have increased levels of satisfaction with life, have most of the important things they expect from life and so they do not wish to make any changes to their lives.

### CONCLUSION AND EVALUATION

There is a statistically significant difference between the total points from the Playfulness Scale and the points from the sub-sets of Passion for Games, Risk Taking, Willingness to play games, Enjoying oneself and Life satisfaction according to

the age variable. As age increases, participation in physical activities and life satisfaction also increase.

The literature offers similar results; a study by Sevil titled the Impact of Participation in Therapeutic Recreational Activities on Perceived Levels of Satisfaction from Leisure Time, Life Satisfaction and Quality of Life (2015) also reports a significant difference by age, with life satisfaction increasing as age increases. In their study, Boley (2001) and Hribernik and Mussap (2011) also found that satisfaction achieved through leisure time increases with age.

In terms of different results cited in the literature, Janke et al. (2006) and Agahi et al. (2006) found that participation in activities as well as the variety of activities participated in decrease due to a lessening of physical skills during the later stages of life. Broughton and Beggs (2007) and Foret (1985) reported that perceptions of social satisfaction decrease with age.

In the study conducted by Hazar et al. (2017), it was concluded that the playfulness scores of 12 and 13 year-old students were significantly higher than 14-year-old students.

There is a statistically significant difference between the total points from the Playfulness Scale and the points from the sub-sets of Passion for Games, Risk Taking, Willingness to play games, Enjoying oneself and Life satisfaction according to the class variable. The literature contains both similar and different results.

When the literature is examined for similar results, a study conducted by Kerkez et al. (1996) found a statistically significant difference following the comparison of 58 variables concerning the physical fitness of 108 young persons in the age group of 12-15 undertaking different types of sports and 19 sedentary young persons. Berg et al. (1995) found physical differences in a study involving sedentary children and young sportsmen. In a study with 300 students selected from 3rd, 7th and 11th grades, Nordqvist (2003) found that physical activity decreases with age. In a study on 2185 children aged between 9 and 15, Riddoch and Boreham (2004) found a significant difference between the physical activity levels of children aged 9 and 15 years old.

When the literature is examined for different results, a study by Oztürk (2016) titled the Attitudes of Students studying in the Departments Coaching and Sports Management towards Playing Games

that Involve Physical Activities found no significant differences. A positively high correlation has been found between the Life Satisfaction Scale score and the Playfulness Scale and its sub-sets. According to this result, the participation of primary school students in active games involving physical movement has a positive impact on their life satisfaction.

When the literature is examined for similar results, Jim and Chen (2009) reported that physical activities in old age comprise of passive, relaxing activities which are individual in nature. In a study conducted by Heller et al. (2004), it was reported that there is a correlation between satisfaction achieved through leisure time and satisfaction from life and that social, aesthetic and psychological dimensions of satisfaction play a defining role.

In his study, Boley (2001) reported that satisfaction achieved through leisure time determines the level of satisfaction from one's entire life. Similar to the results obtained by Heller et al. (2004), it was concluded that ensuring satisfaction from leisure time has an impact on life satisfaction. Mc Guinn and Mosher (2001) reported that individuals participating more frequently in physical activities get more satisfaction from life.

Broughton and Brent (2007) found that participation in physical activities is beneficial for ensuring social and aesthetic satisfaction and relaxation. Lloyd and Auld (2002) showed that the level of leisure time satisfaction of those participating in physical activities has a positive impact on quality of life and that satisfaction from leisure time as well as aesthetic and psychological satisfaction have an impact on satisfaction from life.

## Conclusion and Recommendations

Games based on physical activity played from childhood improve physical and mental health, and strengthens one's will. Playing games involving physical activity strengthens the will, helps boost self-confidence and makes a person more mature.

Stimulating one's hidden abilities and constructive side also makes spiritual and social development possible, as well as physical development. The maturation of personality in pre-adolescence as opposed to the stopping of physical development contributes to spiritual and social development.

Leading a physically active life appears to have positive effects on quality of life. On the basis of these results, it can be inferred that children should be encouraged by families, pedagogues and the state to lead an active life from an early age to increase the quality of life. Efforts should be made to encourage children to play games that involve physical activity to raise healthy generations and help increase children's' satisfaction from life.

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