The Analysis of Relationship Between Competition Styles and Play Skills of Preschool Children

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Abstract

Play is a tool that attunes children to the world and enables children to experience freedom. This tool is significant for children to get oriented with physical and social environment and learn. Children sharpen their emotions, enhance abilities, and develop skills as they play games (Ünal, 2009). There are various definitions of competition (Sheridan and Williams, 2006; Tsiakara and Digelidis, 2012) which is frequently observed in the behaviors of kindergarten children. Competition can be defined as an urge to win, willing to be better than the others can, enjoying competing with others, focusing on an objective and eliminating other individuals to reach that objective or not willing to share the determined objective with others (Yenidünya, 2005). Although competition often exist in preschool children's behavior it is observed that there is not adequate amount of study in the literature. Therefore, the aim of this study is to analyse the relationship between competition skills and playing skills of children that has active completion in their life. For data acquisition in the research The Preschool Competition Questionnaire – PCQ (Uyanık Balat, Akman and Arslan Çiftçi, 2017) and Revised Knox Preschool Play Scale (Değirmenci, 2016) is used. Research data is acquired from 202 children having preschool education in Istanbul in the 2016-2017 education term. Pearson Moment Product Correlation Coefficient and independent groups t-test are used for data analysis. Consequential to the research it is found that there is negative significant correlation ($r=-.358$, $p<.01$) between total score of Revised Knox Preschool Play Scale and Preschool Competition Questionnaire's sub-dimension called "Others-oriented Competition",while a positive significant correlation for "Task Oriented Competition" ($r=.357$, $p<.01$)is found. In the lights of these findings, it can be asserted that others-oriented competition levels decrease as the playing skills level increase and task/winning-oriented competition level increases.

Keywords: Preschool, Competition, Competition Styles, Play, Play Skills.

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INTRODUCTION

Play is a behavior that is commonly observed not only in humans but among all warm-blooded mammals' developmental process. Taking all creatures into consideration, play can be defined as the body of behaviors that prepares for the future, provides entertaining, voluntarily participated, helps developing social behavior and complying with the herb/community existed within (Henricks, 2014). Play is the most appropriate way of expressing self, especially in the first years of life, together with being an event that exists every moment of life, in order to recognize the world that the child lives in and express himself/herself and emotions such as happiness, anxiety, joy(Fazlıoğlu, Ilgaz & Papatğa, 2013). In addition to being a major factor in the healthy development of the child in social, physical and mental areas; play is an experiment room within that they test and try what they hear and what they see, and consolidate what they learn. For this reason, play is the child's most natural learning and practice environment (Ünal, 2009).

The child obtains emotional relief by acting independently in his/her own self-imperative, free world. In addition, several necessities of living is learned and applied such as cohabitation, comprehension of sexual role, respect for rights and freedoms, sharing, winning and losing together by the children through play (Tanrıverdi, 2012). Although different definitions are made about play, all researchers agree that play is the primary activity of the child, that free and voluntary participation is essential, it should be the main source of support for all development areas (Elias & Berk, 2002; Case-Smith, 2004; Canning, 2007; Berinstein & Magalhaes, 2009). In its broadest sense, the play which is based on physical, cognitive, language, emotional and social development, in which the child willingly and likes to take place in any case, with or without rules, with or without a certain purpose is a part of real life and the most efficient learning process (Kılıçoğlu, 2006).

Comenius has stated that the play is thought to have an important role on desire to be free, moving, establishing friendships, developing creativity, competing and changing desires but it has an impact also on discipline and systematization (Koçyiğit, Tuğluk & Kök, 2007). Previous to the analysis of the relationship between competition sense and competition and play that is hosted in the play competition should be defined appropriately. Competition is defined as one or more individuals' actions who are motivated for the same cause opposing another individual or a group to reach an objective (Salvador and Costa, 2009).

Competition, however prove to be a phenomenon that has existed in all beings since the past, is the competition between economic agents that generally examined (Akkaya, 2008). However, one of the areas where competition is a multidisciplinary field of study is social sciences. Because although human life seems to be controversial, it is a dynamic process based on cooperation and competition. It is supposed that there are competitive layers within the work based on many activities in human life (Schmidt, M., Hardecker Tomasello, 2016). Therefore it is possible to encounter competition in daily life dimension when the historical course of individual competition is researched (Akbayırlı, 1998).

Competition is a consequence of the characteristics exist in human nature. This emergence of nature comes after the appearance of imitation and self-direction, as a child's sense of competitiveness. When the self develops and becomes like the people imitated in the person, or even the desire to pass them, the competition comes to fruition (Akkaya, 2008). Competitive activities started to enter the lives of children even more since the late 20th century. In addition, with industrialization it started to have an important share in the home, work and school and encircle children (Paquette, Gagnon, Bouchard, Bigras & Schneider, 2013; Roberts, 2016). Children are not born with an urge of competition; they learn competition. Moreover, this learning is initiated in the preschool period when the social learning is developed (Akkaya, 2008). Similarly, emergence of competition is observable around the age of 5 according to Church (2007).

This life abound with competition is adapted since the childhood years. This adaptation is not external but is a fact of human nature. Roberts's (2016) study can be given as an example for this

situation. According to his research findings, regardless of age and gender, plays that comprise competition are preferred more. A similar study conducted by Sheridan and Williams (2006) showed that in the activities that has a competitive atmosphere children are more attentive, motivated and enthusiastic.

Play comprises inherent motivation in it (Erşan, 2006). This inherent motivation that occurs during the natural course of the play leads to the development of positive competition in suitable social environments. Positive competition supports social and emotional development and efficient learning of children (Brom, Šisler, Slussareff, Selmbacherová, & Hlávka, 2016).

As it is observed in the consequence of literature reviews, play and competition are two interlocked concepts. Despite this, neither in Turkey nor in the world there are adequate number of studies that analyses the relationship between the play and the competition (Akbayırlı, 1998; Akkaya, 2008; Fabes, Martin & Hanish, 2003; Paquette, Gagnon, Bouchard, Bigras & Schneider, 2013; Bozan, 2014; Pappert, Williams & Moore, 2016; Roberts, 2016; Schmidt, Hardecker & Tomasello, 2016). Therefore, the aim of this study is determined as the investigation of relationship between competition styles and play skills of the preschool children. The other two sub-objectives under this main purpose are such: Do the scores that the children in the study group take from Revised Knox Preschool Play Scale diverge according to gender and age variables? Do the scores that the children in the study group take from Preschool Competition Questionnaire differ according to gender and age variables?

METHOD

Research Model

In this study, it is aimed to determine the correlation between play skills and competitions of children aged 48-72 months. For this purpose, relational screening model as a quantitative research method is used in the research. Although the relational screening model does not provide a real cause-and-effect relationship, it enables the prediction of a variable when one of the variables is known (Karasar, 2000).

Research Group

The research group of the study consists a total of 202 children who are selected based on the easy accessibility principle. Thus the children are pre-schoolers that continue a pre-school institution in Istanbul province within 2016-2017 academic year.

Table 1: The frequency and percentage of the research group.

Values		Frequencies (f)	Percentages (%)
Gender	Girl	102	50.5%
	Boy	100	49.5%
Age	48-59 Months Old	74	36.6%
	60-72 Months Old	128	63.4%
School Type	Private Pre-School Institution	60	29.7%
	Public Institutions	142	70.3%

Family income level of the 14 children (6.9%) is lower, 118 (58.4%) children is middle level and 70 children's (34.7%) family income level is high. Mostly, the mothers' (n = 102, 50.5%) age ranges between 31-35 years, while fathers' (n = 106, 52.5%) age ranges between 36-40 years. The majority of the parents are university graduates; the ratio is (n=98, 48.5%) among mothers and (n=100, 49.5%) among fathers. In addition, 128 pre-school teachers of children (63.4%) have undergraduate degree while 74 (36.6%) of them have graduate degree. Of these teachers 132 (65.3%) have 6-10 years of professional experience and 70(34.7%) have 11-15 years of professional experience.

Data Collection Tools

The Revised Knox Pre-School Play Scale, and the Preschool Competition Questionnaire are used as data collection tools in the study.

Revised Knox Pre-School Play Scale: The first form of the scale used by Susan Knox to determine the developmental level of gaming behaviors from birth to the age of 6 was developed in 1968 and was then renewed and used by Knox in 2008. Scale; space management, material management, symbolic play and participation, and 12 sub-dimensions (Knox, 2008). The scale is filled by an observer who has observed the children for 15*2 sets period; that is 15 minutes of in-class free-play behavior and 15 minutes of out-of-class (garden) free-play behavior. In order for the observer to be able to reach the correct observation results, it is important to spend 1-2 hours with children ahead of the observation time with the aim of ensuring that children do not focus on the observer but exhibit natural play behaviors (Knox, 2008). In this research, the Revised Knox Pre-school Play Scale was filled by researchers. The result reached after the scoring process gives the "game age" of the child. It is thought that the child may be under developmental risk if a difference of 8 months or more is found between the child's chronological age and play age (Kennedy-Behr, Rodger, & Mickan, 2013). The adaptation of 48-59 months and 60-72 months forms of the Revised Knox Pre-school Play Scale to Turkish language has been realized by Değirmenci (2016). The internal consistency Cronbach Alpha value of the scale was found as .747. Internal consistency coefficient of this study was found as .782.

The Pre-school Competition Questionnaire: The Pre-school Competition Questionnaire was developed by Paquette, Gagnon, Bouchard, Bigras and Schneider in Canada in 2013 to assess the competitive behavior styles of children ages 3-6. The scale consists a total of 17 items that prescribe pre-school children's competitive behavior (e.g., "Will be annoyed if he/she cannot win in a game", "Tends to stop playing when he/she do not win", and "Stable when dealing with difficult tasks") that can be observed in everyday activities in kindergarten. The Pre-School Competition Scale is filled in by pre-school teachers for each child. The scale is constructed according to the 6-point rating method (1 = never, 2 = rarely, 3 = sometimes, 4 = occasionally, 5 = regularly, 6 = always). The original scale consists of three dimensions; ' Others Oriented Competition ' (8 items), 'Task Oriented Competition ' (6 items) and 'Hierarchy of Dominance Preservation ' (3 items). Children are assessed with the scores they receive from each sub-dimension. The Cronbach's alpha reliability coefficients of the original scale are .89, .75 and .74 for each dimension, respectively. Test-retest reliability coefficients are found to be .92, .80 and .69($p < .001$), respectively. The adaptation of the scale to Turkish language is realized by Uyanık Balat, Akman and Arslan Çiftçi (2017) by including 16 schools in İstanbul province with a total of 208 children aged 48-72 months. The Cronbach's alpha coefficients of the factors range from 0.91 to 0.96, the test-retest reliability coefficients range from 0.85 to 0.95, and the corrected item-total score correlations range from 0.68 to 0.90. Concordance indices show good compliance between the model and data ($\chi 2$ / sd = 3.01, RMSEA = 0.099, SRMR = 0.08, CFI = 0.97, NNFI = 0.97, NFI = 0.96). The Cronbach alpha coefficients of the study are calculated as .843, .847 and .882, respectively.

Data Collection and Analysis

Research data is acquired from 48-72 months old 131 children that are included in the research group. The Knox Pre-school Play Scale, which is used as data collection tool, is filled in by a researcher who has observed the children for 15*2 sets period; that is 15 minutes of in-class free-play behavior and 15 minutes of out-of-class (garden) free-play behavior. Researchers have stayed around the children in the same positions that they will stand during the research for 1-2 hours ahaed so that children can exhibit their natural play behaviors rather than focusing the observers. Competition Questionnaire is filled in by the preschool teachers of the children .

The data of the study were analyzed using a suitable statistical program in the computer environment. Before going into the analysis of the research data, deficiencies and mistakes in the dataset were determined and necessary corrections were made.

FINDINGS

In this section, findings regarding the relationship between the competition styles and play skills of the participant children are presented.

Table 1. Results of Correlation Analysis for the Relationship of Children's Play Knowledge and Competition

	Preschool Competition Scale		
Revised Knox Preschool Play Scale	Other-Oriented Competition	Task-Oriented Competition	Hierarchy of Dominance Protection
Field Management	-.077	.033	.209**
Material Management	-.148*	.227**	.019
Symbolic Play	-.275**	.271**	.011
Participation	-.465**	.415**	.046
Total	-.358**	.357**	.083

**p<.01. *p<.05

According to Table 1, significant relationships have been found between sub dimensions of Revised Knox Preschool Play Scale and Preschool Competition Scale. Based on this, a positively significant relationship (r=,209, p<.01) has been observed between "Field Management" sub dimension of Revised Knox Preschool Play Scale and "Hierarchy of Dominance Protection" sub dimension of Preschool Competition Scale. A negatively significant relationship (r=-,148, p<.05) has been found between "Material Management" sub dimension and "Others-Oriented Competition" sub dimensionwhile a positively significant (r=,227, p<.01) relationship has been found between "Material Management" sub dimension and "Task-Oriented Competition" sub dimension. A negatively significant relationship (r=-,275, p<.07) has been found between "Symbolic Play" sub dimension and "Others-Oriented Competition" sub dimensionwhile a positively significant (r=,271, p<.01) relationship has been found between "Symbolic Play" sub dimension and "Task-Oriented Competition" sub dimension. A negatively significant (r=-,465, p<.01) relationship has been observed between "Participation" sub dimension and "Others-Oriented Competition" sub dimensionwhile a positively significant (r=,415, p<.01) relationship has been observed between "Participation" sub dimension and "Task-Based Competition" sub dimension. In addition, a negatively significant relationship (r=-,358, p<.01) has been observed between total point of Revised Knox Preschool Play Scale and "Others-Oriented Competition" sub dimensionwhile a positively significant (r=,357, p<.01) relationship has been observed between "Task-Based Competition" sub dimension.

As a sub-purpose of the study, the findings examining the differentiation status of children's play skills in terms of gender and age variables in the light of the data obtained from the Knox Preschool Play Scale are presented in Table 2.

Table 2. t-Test Results of the Total Points of Children Received from the Revised Preschool Play Scale against the Gender and Age Variable

Gender	N	Avg.	S.S.	S.D.	t	p
Female	102	7.58	4.21	200	-.786	.433
Male	100	8.02	3.55			
Age Group	N	Avg.	S.S.	S.D.	t	p
48-59 months	74	10.37	2.34	200	8.23	.000**
60-72 months	128	6.31	3.85			

*p<.05**p<.01

As seen from Table 2, the points from Revised Knox Pre-school Play scale does not significantly differ by gender but significantly differ by age. Accordingly, points of the 48-59-month children, when compared to the points of 60-72-month children, are higher with p<.01.

As another sub-objective of the study, the findings examining the differentiation status of children's competition levels in terms of gender and age variables in the light of the data obtained from the Preschool Competition Scale are presented in Table 3.

Table 3. t-Test Results of the Comparison of Total Points Children Got from Preschool Competition Scale Sub Dimensions Against Gender and Age

Sub Dimensions of Preschool Competition Scale	Gender	N	Avg.	S.S.	S.D.	t	p
Other-Oriented Competition	Female	102	23.19	5.07	200	-1.73	0.84
	Male	100	24.74	7.38			
Task-Oriented Competition	Female	102	26.43	5.89	200	3.1	.002*
	Male	100	24.08	4.82			
Hierarchy of Dominance Protection	Female	102	12.98	3.14	200	-1.85	0.065
	Male	100	13.82	3.27			
Sub Dimensions of Preschool Competition Scale	Age Group	N	Avg.	S.S.	S.D.	t	p
Other-Oriented Competition	48-59 months	74	21.97	6.15	200	-3.46	.001**
	60-72 months	128	25.10	6.20			
Task-Oriented Competition	48-59 months	74	25.54	5.68	200	.536	.593
	60-72 months	128	25.10	5.40			
Hierarchy of Dominance Protection	48-59 months	74	12.94	2.94	200	-1.51	.132
	60-72 months	128	13.65	3.36			

*p<.05 **p<.01

According to Table 3, based on the sex variable of the children's score from the Preschool Competition Questionnaire, a significant (p<.05) difference is observed in favor of female children only between the scores taken from the sub-dimension of "Task-oriented competition."Also the age variable of the children's score from the Preschool Competition Questionnaire, a significant (p<.01) difference is observed in favor of children aged 60-72 months only between the scores taken from the sub-dimension of "Others-oriented competition."

RESULTS AND DISCUSSION

The initial aim of this study is to investigate the relationship between the competition styles and play knowledge of preschool children. As a result of the findings, significant relationships have been seen between sub dimensions of Revised Knox Preschool Play Scale and Preschool Competition Scale. It was concluded that while the play skills of the children increased, the level of task-oriented competition increased, while the competition focused on others decreased. This situation can be explained by the nature of the play. Having analyzed the literature, it is an expected result to reach significant relationships between play knowledge and competition styles. This is because children learn competition, sharing and their inner creativity through plays(Bulut & Yılmaz, 2008). It is needless to mention that competition is such an efficient activity factor in plays and classes. This is especially visible in plays where children are divided into two groups (Akkaya, 2008). In addition, competition scales used to determine the competition levels and styles of individuals also have entries including play behaviors (Akbayırlı, 1998; Uyanık Balat, Akman and Arslan Çiftçi, 2017). This situation can be explained by the close relationship between competition and play. After analyzing the findings in detail, a positively significant relationship has been observed between the total point of Revised Knox Preschool Play Scale, sub dimensions of "Material Management", "Symbolic Game" and "Participation", and "Task-Oriented Competition sub dimension of Preschool Competition Scale while a negatively significant relationship has been observed between "Others-Oriented Competition" sub dimension. The significant relationship found between the total and sub dimensions of Revised Knox Preschool Play Scale and task-based competition sub dimension can be explained with the fact

that play skills are based on the task, and namely on the play. This means that plays contain competition by nature, however this sense of competition is based on the task which means the possibility of winning. A negatively significant relationship has been observed between total and sub dimensions of Revised Knox Preschool Play Scale and others-oriented competition sub dimension. It can be explained by the fact that a significant relationship between the Revised Knox Preschool Play Scale total and sub-dimensions and the relative competitive dimension is driven by the game's relative relevance ie game-oriented. In other words, the nature of the game has competition within the necessity, but this competition focuses on emotion, ie winning. There is a negative relationship between the revised Knox Pre-School Play Scale total and sub-dimensions and others focused competition dimension. When the relevant sub-dimensions are examined in detail, it can be predicted that the decrease in the points taken from the sub-dimensions of the social aspect of the play or the contradiction is expected when the focused competition increases. Parallel to this interpretation, as a result of the research conducted by Özçelik (2020), it was seen that there is a close relationship between the social competence levels of preschool children and their competitive skills. In addition, there are studies (Hayon, 2018, Santiago & Toppe, 2020) stating that there are significant relationships between communication and cooperation skills, which are included in the game skills and the participation sub-dimension within the scope of the research. Tsiakara and Digelidis (2021) stated that there is competition in the lives of children in early childhood and this competition usually shows itself in physical games, and they stated that competition is an important supporter in the development process. As a result of another study (Parlatan and Sığırtmaç, 2021), which focused on whether competition in the game is beneficial or harmful for the development of children, it was emphasized that competition is beneficial in the developmental processes of children, and that appropriate conditions should be created for these emotions to be experienced correctly.

As a result of the other research question aimed at investigating the relationship between pre-school children's competitive styles and play skils; the Revised Knox Preschool Play Scale do not differ significantly based on the sex variable. In another study using the same scale (Değirmenci, 2016) scale, a significant difference has been found between the total point received from the scale and the sex of the child in favor of female children. In line with the research results, according to the study carried by Karacan (2000), no sex-based difference has been observed between the play skills of 14 female and 14 male children during free play time. Similar to these results, there are studies which show that there is no significant difference in play skills of children based on their sex, however that there is a significant difference between the types of plays (dynamic, competitive, social, symbolic, etc.) (Nelson, 2011; Gagnon vd., 2013; Emolu, 2014). It shows parallel results regarding that there are no sex-based differences between the game skill levels of children in the study group. From these results, it can be said that the gender differs according to the game types rather than the game developments.

Points received from the Revised Knox Preschool Play Scale differ significantly based on the age variable. Accordingly, the points of children aged 48-59 months are higher than the points of children aged 60-72 months in terms of significance. It can be said that the reason for this is that children aged 48-59 months have to depend on the developmental period of the so-called "game age".

When we look at the competitive dimension of the study, based on the sex variable of the children's score from the Preschool Competation Questionnaire, a significant ($p<05$) difference is observed in favor of female children only between the scores taken from the sub-dimension of "Task-based competition." Although there are differences in the findings of studies investigating the relationship between sex and competition, it is possible to say that majority of studies show that male children exhibit more competitive behavior compared to female children (Maccoby, 1998; Green vd, 2003; Fabes, Martin, & Hanish, 2003; Gneezy & Rustichini, 2004). Unlike these results, there are also studies that show parallel results with our study. As a result of their study examining the competitive and non-competitive play styles on 64 preschool children in 2008, Weinberger and Stein concluded that male children prefer more competitive plays compared to female children. The study carried by Roy and Benenson (2002) also shows similar results to this study. According to this, female children have been observed to prefer less competitive plays. Whereas in Turkey, Uyanık Balat, Akman and

Arslan Çiftçi (2017) carried out a study evaluating the competition styles of preschool children on 208 children aged 48-72 months, which showed no significant difference based on the sex variable. All of these studies show that sex might have an influence on level and style of competition. Lindsay (1984) carried out a study in which he examined playground activities in 10 Alberta kindergarten in order to determine the sex difference in plays. As a result, he found that female children were more social and cooperative while playing and they were focused on the process rather than the result (Gül, 2012). Tsiakara and Digelidis (2014) carried out a study investigating the competitive behaviors through observation in 90 male and 86 female preschool children aged 5. As a result of this study, it is found that male children exhibited more competitive behaviors compared to female children. These behaviors were observed not only during competitive situations such as the organization of activities, but also during breakfast and free playing time. This result shows that male children in the study group often prefer to act in a competitive way during the course of their everyday life.

Based on the age variable of the children's score from the Preschool Competition Questionnaire, a significant ($p<01$) difference is observed in favor of children aged 60-72 months only between the scores taken from the sub-dimension of "Others-oriented competition. In another study in which the same scale was used (Mr., 2020), a similar result was obtained, and it was concluded that the other-oriented competition level of children increased with age.According to the study carried by Schmidt, M., Hardecker Tomasello (2016) on understanding the normality of competition in children aged 3 and 5, children aged 5 can perceive the form of competition and act accordingly, therefore they are found to be more dominant than children aged 3. Pappert, Williams, and Moore (2016) carried out an experimental study examining the competitive behaviors in children aged 4-7, and concluded that there is no significant difference between the age groups and that all age groups exhibit similar competitive behaviors when offered a reward. As a result of the study carried by Shaw, DeScioli, and Olson (2012) on competitiveness and fairness in children aged 6-8, it is found that children tend to act fairly in the absence of competition whereas their level of fairness significantly decreases when they personally get involved in the competition. As it is seen in the result of all these studies, it can be said that competition increases with age and shows itself more in behavior.

Identifying and responding appropriately to the sense of competitiveness of each child experiencing a healthy development process is of utmost importance for holistic development. Play, the most important learning method of the child, constitutes the basic philosophy and method of pre-school education program (MEB, 2013). Teachers should make use “play” that both develop social skills and provide opportunities for real life learning. It is recommended to increase the number of play activities, especially the free play times played by the games that the player has configured, with qualified materials. It is also suggested that new studies be conducted to investigate the relationship between play and competition from different angles.

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