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An Examination of Turkish preschool curriculum's effect on children's concept acquisition

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Abstract

The aim of this study is to examine the effect of Turkish preschool curriculum on children's concept acquisition. The research was carried out assessing children on three occasions, on September 2008, January 2009, and June 2009, respectively. Research was conducted on 24 children who were 5 years old, and schooled according to Turkish preschool curriculum. Bracken Basic Concept Scale-revised (BBCS-R), which has six subtests, was used as data collection instrument. For analyzing the data suitable statistic method was used. The results show that Turkish preschool curriculum has positive effect on children concept acquisition.

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1. Introduction

Early childhood education bears great significance in satisfying children's developmental needs. Therefore the quality of the education given in this period and the fact that children benefit from it efficiently brings on positive effects on children in the long term. The increase in the researches regarding individual's early years contributes to the quality of preschool education also by affecting the curricula and approaches applied early childhood education (Lohmander, 2004). The policies formulated to improve the quality of early childhood education and the curricula determined in line with of these policies are expected to develop children's cognitive, social, emotional, psychomotor development areas and self-care skills (Toran, 2011; Temel, 2005). Early childhood education curriculums, along with putting the general framework for early childhood education; provides convenience in determining what the children's developmental acquisitions should be, methodology to be employed and the arranging the school operation and responsibilities of the teacher (Alvestad and Samuelsson, 1999).

The national preschool education curriculum developed in Turkey has been applied as of 2006 to provide for the developmental needs of the 36-72 months old children. In this curriculum the aims are determined in accordance with the child's development fields. When these goals and acquisitions are analyzed it can be seen that there is a concentration on cognitive and lingual development areas. The distribution of the goals and acquisitions concerning cognitive and lingual fields stands out around 60%, while other development fields and self-care skills remain at 40% (MEB, 2006).

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Concepts are mental tools that enable individuals to separate a series of events, an idea or a process from others and to understand physical and social world to obtain meaningful relationships (Hayes and Conway, 2000). Concepts enable extensive amount of information to be rendered into utilizable units as well as allowing to arrange and store the knowledge (Aktaş Arnas, 2009; Senemoğlu, 2007). Therefore a concept is a symbol assigned to a group of objects or events that share certain features among themselves (Ülgen, 2004;Avcı, 2004). Concept acquisition is regarded as the principal instrument of cognitive development and basic concepts are acquired through senses at the early years of life (Uyanık-Balat and Güven, 2006). Concept development helps children classify taxonomic-meaningful categories and categories. Conceptualization also forms the ground of knowledge constitution in the early childhood period (Bracken and Crawford, 2010;Cohen and Strauss, 1979; Lee et al., 1963).

Theories regarding the early childhood period deal with the concept acquisition from different perspectives. According to Piaget, the concept acquisition of the child comprises of two stages. The former are the concepts that occur in line with the development phases of the child that come about as a consequence of the maturation through the child's own mental process, "spontaneous" concepts that are independent of any conscious learning; the latter are the concepts that exist in social life controlled by adults, "non-spontaneous" with the influence of adults (Erdener, 2009). According to Vygotsky concept constitution is associated with the culture that the child lives in and with what is expected asked from the child in this specific culture. Culture and social environment are crucial elements that determine both the form of concept constitution and the acquisition of the concept (Ergün and Özsüer, 2006). Accordingly concept acquisition comprises of two processes and these processes come about in relation with each other. The concept acquisition of the child takes place through the processes of; "the daily concepts", without a conscious processing, as a consequence of the child's own living; and "the scientific concepts" through a conscious processing that are taught by social institutions (Erdener, 2009; Flear and Raban, 2006).

The concept acquisition at the early childhood period is important for the child's success at school. Although basic concepts are very simple terms, some children can learn these concepts only after a couple of years of formal education (Bracken, 1998). Basic concepts (space, quantity, time etc.) bear outstanding importance concerning the child's development of cognitive skills, academic performance and social interaction. The fact that the child has failed to acquire these concepts on time might have a negative impact on the child's education life (Aral and Bütün Ayhan, 2007).

Although there have been a notable amount of research carried out on children's concept acquisition in Turkey, when analyzed it is noted that there have not been any study carried out regarding the effects of the Turkish Preschool Curriculum that is developed in 2006 on children's concept acquisition. Therefore, the aim of this study is to examine the effect of Turkish preschool curriculum on concept acquisition of children who are five years old.

2.Method

A semi experimental single group method is applied in the research. Semi experimental method is to study solely the experiment group where there is no control group available (Büyüköztürk, 2003). The sampling of the research comprises of 24 children at the age 5 in a preschool where the Turkish preschool curriculum is applied. Bracken Basic Concept Scale-Revised (BBCS-R) is employed as the data collection tool of the research. BBCS-R is developed by Bruce A. Bracken (1984) and has been revised in 1998. BBCS-R constitutes of 6 subscales and 308 items. The scale includes the subscales of School Readiness Composite, Direction/Position, Self/Social Awareness, Time/Sequence, Quantity and Texture/Material. In order for BBCS-R to be adapted for Turkish children, studies of validity and reliability are conducted by Uğurtay Üstünel (2007) for children of 3-5 years; and by Aral and Bütün Ayhan (2005) for children of 6 years.

The research was conducted between September 2008 and June 2009 in a preschool where Turkish Preschool Curriculum had been applied. During the research the researcher had been by no means in interaction with the children other than data collection. The data collection had been carried out on the months of September, January, June and progress was measured for a whole year. One of the limitations of the study was the lack of comparison group because, there were not any children who had same SES and did not enroll to a preschool.

3.Results and Discussion

In this section of the research the findings derived through the analysis of the data are presented in tables; interpreted and discussed.

Table1. Result of ANOVA analysis to find differences between three observations

Effect	Value	F	Hypothesis df	Error df	p
Between Subjects Intercept	0.030	96.413	6.000	18.000	.000*
Within Subjects Time	0.061	15.437	12.000	12.000	.000*

*p<.001

As Table 1 shows; the effects of the Turkish Preschool Curriculum on children’s concept acquisition had been analyzed and according to the results of ANOVA analysis of the data collected from BBCS-R form among three different measuring (September-January-June) a statistically significant difference at a level of p<.001 had been found ($\lambda=.03$; $F_{6,18}=96.41$; $p=.000$). According to this analysis it can be stated that Turkish Preschool Curriculum has effects on children’s concept acquisition.

Table 2. Result of MANOVA analysis to find differences between the subtests of BBCS-R during the observations

Source	Measure	Sum of Squares	df	Mean Square	F	p
Time	School Readiness Composite	1520.778	2	760.389	29.512	.000*
	Direction/Position	3947.194	2	1973.597	51.913	.000*
	Self/Social Awareness	293.583	2	146.792	12.811	.000*
	Time/Sequence	648.694	2	324.347	30.082	.000*
	Quantity	889.528	2	444.764	34.845	.000*
	Texture/Material	862.028	2	431.014	45.063	.000*
Error (Time)	School Readiness Composite	1185.222	46	25.766		
	Direction/Position	1748.806	46	38.018		
	Self/Social Awareness	527.083	46	11.458		
	Time/Sequence	495.972	46	10.782		
	Quantity	587.139	46	12.764		
	Texture/Material	439.972	46	9.565		

*p<.001

In table 2, the data obtained from subscales of BBCS-R form was analyzed with MANOVA to demonstrate effects of Turkish preschool curriculum on children concept acquisition whole year. According to the MANOVA analysis, in all subscales of BBCS-R form among three observations a statistically significant difference at a level of p<.001 had been found (SRC= $F_{2,46}=29.512$, $p=.000$; Direction/Position= $F_{2,46}=51.913$, $p=.000$; Self/Social Awareness= $F_{2,46}=12.811$, $p=.000$; Time/Sequence= $F_{2,46}=30.082$, $p=.000$; Quantity= $F_{2,46}=34.845$, $p=.000$; Texture/Material= $F_{2,46}=45.063$, $p=.000$). As seen on Table 2, significant differences had been found in all BBCS-R subscales among three observations.

Table 3. Results of Post Hoc analysis to find the differences between the subtests of BBCS-R during the observations

Measure	(I) Time	(J) Time	Mean Difference (I-J)	Std. Error	p	
School Readiness Composite	Sept	Jan	-7.250*	1.509	.000	
		June	-11.083*	1.604	.000	
	Jan	Sept	7.250*	1.509	.000	
		June	-3.833**	1.262	.018	
	Direction/Position	Sept	Jan	-10.625*	1.488	.000
			June	-18.042*	1.945	.000
Jan		Sept	10.625*	1.488	.000	
		June	-7.417**	1.873	.002	
Self/Social Awareness	Sept	Jan	-3.667*	.898	.001	
		June	-4.708*	.916	.000	
	Jan	Sept	3.667*	.898	.001	

Time/Sequence	Sept	June	-1.042	1.104	1.000
		Jan	-4.125*	.879	.000
		June	-7.333*	1.176	.000
	Jan	Sept	4.125*	.879	.000
		June	-3.208*	.735	.001
		Jan	-4.875*	.826	.000
Quantity	Sept	June	-8.583*	1.158	.000
		Jan	4.875*	.826	.000
		June	-3.708**	1.081	.007
	Jan	Sept	-5.667*	.898	.000
		June	-8.292*	.995	.000
		Jan	5.667*	.898	.000
Texture/Material	Jan	June	-2.625**	.770	.007

*p<.001; **p<.05

As Table 3 presents, as a result of post hoc analysis of September-January- June observations of BBCS-R form applied for a whole year, while the subscales of School Readiness Composite, Direction/Position, Texture/Material and Quantity showed a statistically significant difference at a level of p<.05, no statistically significant difference had been observed among January -June observations of the subscale of Self/Social Awareness. The September-January-June observations of all the subscales apart from the ones mentioned above; demonstrated a statistically significant difference o at a level of p<.001 (School Readiness Composite=Sept<Jan<June; Direction/Position=Sept<Jan<June; Self/Social Awareness=Sept<Jan=June; Time/Sequence=Sept<Jan<June; Quantity=Sept<Jan<June; Texture/Material=Sept<Jan<June). The post hoc analysis demonstrate that; apart from the January-June observations of the Self/Social Awareness sub-category of BBCS-R, the September-January-June observations of all the other subs present a significant difference and thus indicates that Turkish Preschool Curriculum improves children’s concept acquisition by affecting positively.

The research intends to study the effects of Turkish Preschool curriculum on the concept acquisition of the 5 year old children continuing their preschool education, and the findings indicate that the applied preschool curriculum has positive influence on the concept acquisition of the 5 year old children. According to the findings derived it might be concluded that Turkish preschool curriculum affects children’s concept acquisition positively. In their research, Uyanık-Balat and Güven (2006), observe that concept acquisition of the orphan children continuing their preschool education is high regardless of the negative conditions. It might also be stated that, because of its developmental features; the preschool curriculum applied in Turkey sustains children’s concept acquisition. Similarly, in their research Flear and Raban (2007) conclude that developmental curricula have positive influence on children’s concept acquisition. Depending on their research, Üstün and Akman (2003) indicate that when compared, the concept acquisition of the children who continue preschool education is higher than the concept acquisition of the children who do not. Another research studying the effects of Turkish Preschool Curriculum and project based curriculum on children’s concept acquisition indicates that both curricula improves children’s concept acquisition to a great extent while concluding that project based curriculum group, which also had been the experiment group, attained a statistically low significant result between the pre and post tests regarding the concept acquisition (Aral et al. 2010). A research in which the effects of socio-economic level on concept acquisition of the children continuing preschool education states that the socio-economic level has influence on children’s concept acquisition and conclude that the preschool education is a determinant element for children’s concept acquisition (Sucuoğlu et al., 2008). The researches point out that the education programs have positive influence over children’s concept acquisition and confirm the outcome of the research in question.

4. Conclusion

As an outcome of an evaluation of one year, it might be stated that, the current applied preschool curriculum in Turkey has positive effects on the concept acquisition of the 5 year old children. It is considered that this is sourced from the fact that the preschool curricula in Turkey concentrate acquisitions on cognitive and lingual fields. When

the literature and theories are taken into account, they indicate that a focus on cognitive and lingual development areas support children's concept acquisition as well as preschool education. It can also be inferred that preschool education plays a crucial role in children's lives to enhance their concept acquisition, perceive the world they live in and to arrange and categorize the knowledge in their daily lives. Therefore it is of great significance that children benefit from preschool education in order to improve their concept acquisition when their need is taken into account. The research demonstrates not only that the children's concept acquisition flourishes by means of preschool education; but also confirms that the preschool curriculum applied in Turkey supports children's concept acquisition.

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