



OKUL ÖNCESİ DÖNEM ÇOCUKLARININ MATEMATİK BECERİLERİ AÇISINDAN İLKÖĞRETİME HAZIR BULUNUŞLUĞUNUN İNCELENMESİ

A STUDY OF PRE- SCHOOL CHILDREN'S SCHOOL READINESS RELATED TO SKILLS OF MATHEMATICS

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Extended Abstract

The mathematical skill depends on abstract thinking and is one of the most vital skills for a human being to survive. Because of this reason, it is important for children to acquire mathematical skills from the beginning of Pre-school.

If acquisition of mathematical skills is accepted to be important in pre-school period, it is meaningful to study in this area. Especially the variables relating to the development of children in terms of mathematical skills should be focused on. School readiness of pre school children in another important issue to investigate and mathematical skills is a significant dimension related to school readiness of young children. On the basis of this point of view, school readiness of pre-school children can be investigated in relation to mathematical skills. This study, which was done from this point of view, aimed to contribute to pre-school children's mathematical skills and thus, to school readiness.

Mental, social, and environmental factors can be cited among those factors which effect school readiness (Oktay and Unutkan, 2003). Because of this reason, in this research mathematical skills that are related to school readiness were investigated with regards to pre-school education, age, gender, and socio economic status variables. It is well known phenomena that mathematical thinking skills are very important in primary school. The children who have those skills at the start of primary school are advantageous when they are compared with other children who do not have those skills.

The goal of this research was to investigate school readiness of pre-school children in relation to mathematical skills. In the study, mathematical skills of children with pre-school education and children without pre-school education were compared in terms of school readiness, age, gender, and socio economic status. The sample of the study consisted of 180 children with pre-school education, and 120 children without pre-school education. The children were 5, 5.5, and 6 years old.

The data of the research were gathered through a questionnaire for personal information and mathematical subtest of the Marmara School Readiness Scale.

The questionnaire for personal information included information about children's attendance to pre-school, age, gender, family income and additional income of the family relating to socio economical status, such as ownership of the house, the rooms and sections in the house, the belongings and furniture in the house, and the number of the people who live in the house. There were a total of 28 items in this questionnaire.

The Marmara School Readiness Scale, which was used in the study, was developed and standardized by Unutkan in 2003. This scale has 5 subtests, namely, mathematics, science, sound, drawing and labyrinth. The scale consisted of 74 items. The scale was presented to children individually at their pre school by the researcher. In the mathematical subtest there are totally 47 items (7 items for attention and memory, 25 items for number recognition, 5 items for increasing and subtraction, and 11 items for sequencing).

The questionnaire was filled in by the parents. The mathematical subtest was presented to children individually at their school or at home.

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The data, which were gathered by questionnaire and the scale, were analyzed using SPSS package program.

The results indicated that;

Children with pre-school education were differentiated significantly from children without pre-school education in terms of increasing-subtraction, sequencing, and number recognition abilities, together with total score of the scale. Children with pre-school education were more competent than other children in mathematical skills.

There was no gender influence according to the results. The children were differentiated in terms of age regarding the mathematical skill of sequencing, and total score of the scale. Children of 5 years old had weaker mathematical skills than children of 5.5 and 6 years old.

Children from lower socio economic status were disadvantageous than the children from higher socio economic status in mathematical skills of attention and memory, increasing-subtraction, sequencing and total score of the scale.

As a summary, results of the research revealed that pre-school education is an important factor regarding development of mathematical skills of 5-6 years old children. While there was no gender influence on mathematical skills of children, age of the children and the families' socio economic status effect development of pre-school children, as the prior research concluded. Another important result of the study was that, school readiness of the children with pre-school education was higher than the children without pre-school education. These results indicated that pre-school education for 5-6 years old children should be obligatory. In order to support pre-school children's school readiness, mathematical skills of the children should be increased.