Okul Öncesi Öğretmenlerin Erken Matematik Eğitimine İlişkin Özyeterliklerinin Çeşitli Değişkenler Açısından İncelenmesi

Relationship Between Self-Efficacy of Preschool Teachers About Early Mathematic Education and Various Variables

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EXTENDED SUMMARY

The foundation of mathematical development in children is beginning in early years. Most of the mathematical concepts are develop at least intuitively in the pre-school period. It is therefore important to reach these children for early childhood educators and to provide high quality mathematics education. There are researches that suggest that there is a relationship between the academic achievement of children and the qualifications of teachers. Teachers influence student learning and development in multiple ways. They directly provide students with content knowledge, but also indirectly shape students' educational experiences that lead to the formation of key aspirations and expectations. These indirect influences can be strong enough to affect student academic attainment (Tran ve diğ. 2012).

PURPOSE

The research has been made in purpose of analysing the relationship between self-efficacy of preschool teachers' about early mathematic education and 6-year old nursery class childrens's mathematics development and various variables.

METHOD

Survey method was used as a descriptive method in this research. Also known as a scanning method, survey method is one of the methods widely used in educational sciences as well social sciences. Survey model is a research approach aiming to describe a situation, which was in past or is now, with the form of its being now. Individual or object that subjects to research is tried to be defined in the conditions of its or her/his and as it or s/he is. Any attempts to change or affect them are not shown (Karasar, 2005). The research was conducted in preschool in the center of Erzurum in the 2012 – 2013 educational year.

Working Group and Data Collection Tools

The sample of this study consists of 30 teachers and 120 children belong to their classes. The self-efficacy of teachers about early mathematic education is avaluated with "Preschool Teachers' Self-Efficacy Related to Early Childhood Math Assessment Instrument" and children's mathematic development level is evaluated with "Progress in Maths 6 Test". The scale "Preschool Teachers' Self-Efficacy Related to Early Childhood Math Assessment Instrument " that was developed by Tokgöz (2006) was used in research to measure teachers' self-efficacy concerning early childhood mathematics. "Preschool Teachers' Self-Efficacy Related to Early Childhood Math Assessment Instrument " is a Likert scale that has five points, and it is answered as 1 being "strongly disagreed" and 5 being "strongly agreed" and it consists of 30 items. The scale is graded to define high point self-efficacy towards early childhood mathematics. In order to evaluate the developmental levels of mathematical skills of children, "Progress in Maths 6" test that was developed by Clausen et al. (2004) and of which Turkish validity and reliability test was made by Çelik and Kandır (2011) was used. This test is applied to children at the age of six or those who will be at this age in that educational year in groups. There are 24 questions in the test and it takes about 35 minutes to answer it. The content of the Test Booklet in the Progress in Maths 6 test was designed as the order of difficulty. The harder questions were scattered between the easier questions in order to keep the motivation of the children.

Data Analysis

Data obtained from measurement tools are analysed through descriptive and predictive statistical methods.

CONCLUSION

İt is observed that there it is no relationship between self-efficacy of preschool teachers about early mathematic education and 6-year old children's mathematic development. As a resuld of the analysis as teachers' self-efficacy about early mathematic education points increase the level of feeling adequate on being a preschool teacher inctease . Also there is no relationship between early mathematic skills that taechers give place in their programs and early chidhood mathematic self-efficacy levels.