Validity And Reliability Study of Early Thinking Skills Scale*

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Extended Summary

Purpose and Significance

For the 21. century societies where scientific researches are at the forefront, the existence of individuals with problem solving-decision making, critical thinking, creative thinking and effective decision-making skills gains importance. These qualifications which have become universal values; express the importance of thinking skills. Thinking skills are fundamental skills that make children active in making decisions, improve the sense of responsibility for their own learning, improve the creative and critical thinking, cause children to find and use searching methods. The early childhood period can be called as crucial with respect to its physical, social, emotional, and cognitive dynamics. The development of the thinking skills of children is a dynamic period. Knowing how do thoughts of children change is essential to make a proper and effective communication between children. The thoughts of children are valuable since they are the product of their emotional and cognitive periods. The purposes of this research are to reveal the necessity of early thinking skills and perform the validity and reliability study of the "Early Thinking Skills Scale". This research is important both to determine children's thinking skills and to improve children's skills.

Method

The population of the research consisted of 48-72-month-old children's teachers and parents attending to independent kindergartens and primary schools acting under the Ministry of Education in the central towns of Çankaya, Altındağ, Keçiören and Pursaklar in the city of Ankara in the educational year of 2018-2019. Teachers of 479 children and parents of 482 children, selected by layering technique were the study group of the research. The survey method from the quantitative research methods was used in this study which was conducted. The survey method is one of the methods widely used in educational sciences as well as social sciences. The survey method aims to determine a past or a present case as they are (Karasar, 2016). In the collection of research data, the "Early Thinking Skills Scale Teacher Form" and "Early Thinking Skills Scale Parent Form" developed by the researcher were used.

Findings

Exploratory factor analysis was used in order to determine the significant factors of the scale. As a result of the factor analysis, the Early Thinking Skills Scale Teacher Form that consists of 61 items and 3 sub-factors and Early Thinking Skills Scale Parents Form that consists of 56 items and 3 sub-factors are created. "Early Thinking Skills Scale Teacher Form" explains 64.8 of the total variance. "Early Thinking Skills Scale Parent Form" explains 60.3 of the total variance. As a result of the reliability analysis, the Crα coefficient for the overall scale is 990. And in the light of these findings, it can be said that the scores obtained from the early thinking skills scale form are reliable and valid.

Discussion, Conclusion, and Recommendations
According to these results, it is stated that "Early Thinking Skills Teacher Form" and "Early Thinking Skills Parent Form" which create the "Early Thinking Skills Scale" were determined to be valid and reliable. When related literature was reviewed, there have been only a number of studies related to early thinking skills. In addition to these studies, it might be considered that the present study developed a scale for early thinking skills, may contribute to the education field. Making more studies about this subject by the researchers will both contribute to the literature and guide the other researchers who want to study on this subject. Developments for thinking skills’ improvement continue and researchers make an effort in this direction. On the other hand, it may be suggested to do studies identifying different variables related to early thinking skills and also comparatively examining the effect of other variables, such as gender.