

The Development of Executive Function Skills in 48-60 Month-Old Children: The Role of Mother-Child Interaction¹

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Abstract The development of executive function skills in early childhood is of critical importance for a child's cognitive and social adjustment, as well as future academic success. This research aims to evaluate the impact of the Mother-Child Interaction Program on the executive function components (working memory, inhibition, and cognitive flexibility) of children aged 48-60 months. Designed according to a quasi-experimental pattern among quantitative research methods, the study examined a total of 46 mother-child dyads, 23 in the experimental group and 23 in the control group. In order to collect data, the "Preschool Executive Function Battery", "Home Observation Scale (HOME)" and "Temperament in Childhood Scale" (to control for children's temperament) were used. As a result of the analyses, it was revealed that the interaction program provided a significant increase in the working memory levels of the children in the experimental group compared to the control group. In the cognitive flexibility dimension, although there was a significant difference between the pre- and post-experimental scores in the experimental group, it was seen that this difference was not statistically significant compared to the children in the control group. It was determined that the application time in the inhibition dimension had no effect on increasing the scores in both groups. Additionally, no significant difference was found between the pre-test and post-test scores in the academic support, experience diversity, and modeling sub-dimensions of the Home Observation Scale. In conclusion, structured programs based on mother-child interaction have been found to have significant potential in supporting the working memory component of executive functions.

Keywords: Executive Function, Cognitive Flexibility, Working Memory, Inhibition, Mother-Child Interaction.

Brief Biography

Mukadder Dilber

Mukadder Dilber holds a Bachelor's degree from Selçuk University (2013). She earned her Master's (2015) and Ph.D. (2023) in Child Development and Education from Gazi University. Her master's thesis examined the relationship between preschoolers' moral judgment and interpersonal problem-solving skills, while her doctoral research focused on mother-child interaction programs and executive functions. Academically, she served as a Research Assistant at Ahi Evran and Gazi Universities (2013-2017) and currently works as a Child Development Specialist at Biga Çocuk Akademisi. She specializes in early childhood cognitive development, parenting interactions, and educational interventions.

Fatma Abide Güngör Aytar

Fatma Abide Güngör Aytar is a retired professor. He worked in the field of Child Development and Education at Gazi University for many years. He has made great contributions to the field by carrying out many studies and projects on child development and child mental health.

¹ This study is derived from the author's doctoral dissertation entitled "Investigation of the Effect of Mother-Child Interaction Program on the Executive Function Skills of 48-60 Month Old Children" completed at Gazi University, Graduate School of Educational Sciences.