

# Children's Time, Parental Style and Cognitive Skill<sup>†</sup>

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## Abstract

This study examines the impact of diverse parental involvement styles on the academic performance and non-cognitive skills of ninth-grade students in Japan. While previous literature has primarily focused on parental time, the underlying mechanisms and the relative importance of different involvement types—especially during adolescence—remain a "black box." Using original survey data from over 5,000 samples and employing both Instrumental Variable (IV) and factor decomposition methods, this research analyzes the effects of six dimensions of parental involvement on child's cognitive and non-cognitive skills: time spent, emotional support, educational monitoring, household rules, early childhood parenting, and educational expectations.

The results reveal that current parental involvement has limited direct impact on academic test scores. However, it exerts a significant indirect influence through three mediating factors: increasing study time, reducing mobile phone usage, and enhancing non-cognitive skills. Notably, maternal educational monitoring showed a significant negative correlation with girls' academic and non-cognitive outcomes, suggesting that excessive maternal intervention can induce psychological stress and undermine autonomy. Conversely, paternal involvement and the establishment of household rules were found to be critical, particularly for boys and children from low-income or low-performing households.

Furthermore, factor decomposition demonstrates that early childhood parenting and parental educational expectations possess far greater explanatory power for academic achievement than current involvement styles, aligning with the theory of "self-productivity" in skill formation. These findings suggest that the traditional mother-centric model of education has limitations. Instead, a strategic division of parental roles—where mothers shift from monitoring to emotional support and fathers increase their engagement—is essential for optimizing adolescent development and reducing educational inequality.

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