

# **The Effects of Absenteeism and Remote-Learning on the Development of Logic-Mathematical Knowledge in Kuwaiti Students**

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## **Abstract**

The goal of the study was to examine the development of logic-mathematical knowledge in Kuwaiti students after the COVID pandemic of 2019. Using a clinical exploration method the researcher observed 17 students over three months to evaluate thinking skills while playing “Lining Up the Fives” card game. The six- and seven-year-old students exhibited five distinct levels of logical thinking with a range of zero to two. These levels of logical thinking were lower than the researcher expected, especially when compared to results found in a similar Japanese study. The students in Kuwait had experienced prolonged absence from school during the COVID pandemic and many remote-learning situations with rote memorization exercises, exhibiting very low levels of logical thinking. The results suggest that the lack of needed stimulatory physical knowledge activities led to insufficient development of logical thinking skills. The researcher concludes that the long absence from school and remote-learning activities appear to negatively affect the development of logical thinking skills.

**Keywords:** Early childhood education, Logico-mathematical thinking, Game, Seriation, Classification