

# **Mathematical Creativity: Incubation, Serial Order Effect, and Relation to Divergent Thinking**

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## **Abstract**

The current study explored whether creative processes specifically incubation and the serial order effect extend to creativity in mathematics, and if there is a relation to divergent thinking. A total of 155 postsecondary students completed an unusual use task and a multiple-strategy math task. Participants were given 8 minutes to generate as many strategies as they could for the math task, and then after a brief break, were given another problem with the same underlying structure for 4 minutes. We find evidence for a serial order effect in math, whereas across trials it became more difficult for participants to generate a new strategy, but the strategies were rated as more creative. The brief break also provided some evidence of incubation, as there was a boost in the number of overall strategies and creativity. We also found that divergent thinking and mathematical creativity were significantly related.