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Preliminary insights into the effects of ChatGPT on children's creativity

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Abstract

Creative thinking is associated with improved academic performance, social proficiency, problem-solving skills, and emotional wellbeing in children. Here, we explore the potential of ChatGPT, a language model developed by OpenAI, as an avenue for fostering creativity in children through prompting new ideas and ways of thinking. Six- to 11-year-old children's (N=140) performance on the Alternative Uses Test (AUT) was measured before and after completing one of three possible activities: (i) hearing single-word AI-generated uses for three objects, (ii) hearing sentence-long AI-generated uses for the three objects, or (iii) drawing a picture containing the three objects. Blind coding of children's own AUT responses (for different objects) before and after these activities suggested that children showed greater improvements in creativity in the two AI conditions ($M=.55$, $SE=.14$) than in the drawing condition ($M=.04$, $SE=.15$), $F=4.17$, $p=.018$. Our results provide initial support for ChatGPT as a useful tool for promoting children's creative thinking.