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Authors

Chu, Junyi
Zhang, James
Lee, Imogen
et al.

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Does fun help or hinder learning? Examining intuitive beliefs about educational game design

Junyi Chu
Stanford University, United States

James Zhang
Stanford University, United States

Imogen Lee
Stanford University, United States

Nick Haber
Stanford University, United States

Hyowon Gweon
Stanford University, United States

Hariharan Subramonyam
Stanford University, United States

Judith E. Fan
Stanford University, United States

Abstract

Much research suggests that children learn through play. Yet, play has a reputation as frivolous, and beliefs about play and learning vary across development and sociocultural contexts (Wing, 1995; Bugallo et al, 2024). These differences may reflect varying intuitive theories about how activities promote or prevent learning and shape activity choices. Here, we examine beliefs about how specific activity features impact learning experiences and outcomes. Participants (n=41 adults, ongoing) evaluated 16 math games that systematically varied in both instructional features (e.g., feedback) and playful aesthetics (e.g., audio-visual effects). Results show that games rated as more enjoyable were also rated as better for improving learning. Ongoing work examines how 2nd-4th graders, teachers, and parents respond to specific game features. Our research helps characterize the intuitive theories guiding how people reason about the design of learning experiences, and how such beliefs change with development and experience.

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