

When Play Leads the Way: Uninstructed Play as a Catalyst for Children's Creative Learning

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Abstract

This study explores the potential of uninstructed play as a catalyst for creative thinking, imagination, and 21st-century skills development in young learners. Drawing on a research through design (RtD) approach, the authors developed and tested a modular playful learning system for primary school children in Jordan, including participants from refugee backgrounds. The study involved 18 six- to nine-year-old girls who engaged with the prototype in five small groups over three sessions. Data were collected through observation sheets capturing cognitive, social, emotional, and behavioral indicators, such as number of creations, iterations, collaboration, storytelling, and affective engagement. Findings show that uninstructed play encouraged divergent thinking, experimentation, and peer-to-peer learning. Participants produced a wide range of designs contextualized through narratives, demonstrating creative fluency, flexibility, originality, and elaboration. Moreover, their creations revealed traces of personal and collective experiences, including representations of war and displacement, highlighting the socio-emotional dimension of play. The findings suggest that playful, open-ended environments allow children to negotiate meaning, test hypotheses, and co-construct knowledge, hence fostering both creativity and critical consciousness. The findings also underscore the importance of inclusivity and freedom in learning environments, where the absence of prescriptive instruction potentially enables young learners to take ownership of their creative processes. Despite limitations in sample size and observation duration, this research contributes to design scholarship on play, offering practical implications for integrating playful learning systems into formal education. Future directions include comparative studies across cultural and gendered contexts and longitudinal investigations into the sustained effect of playful interventions.

Keywords: creative thinking; imagination; playful learning systems; research through design; undirected play