

Conference: Interdisciplinary Perspectives on Imagination in Informal STEM Environments (DRL-1906899)

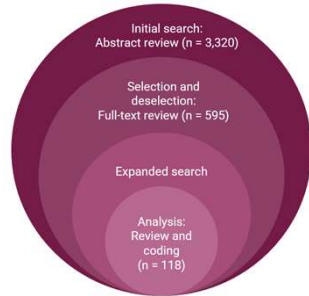


Through an NSF-funded literature review, professional survey, and virtual convening, the Museum of Science, Boston is systematically documenting intersections between imagination, STEM and learning to create research-based resources for positioning and attending to imaginative ways of thinking in informal STEM learning environments. This poster shares an overview of our research [methods](#) and [preliminary findings](#) (as of Sept 2021). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the Foundation.



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Comprehensive Literature Review



How is imagination defined across literature that addresses imagination and STEM?

What imaginative ways of thinking are represented across this literature?

In what ways is imagination positioned in relation to STEM?

What strategies for cultivating and fostering imagination in STEM are represented across the literature?

Professional Perspectives Survey



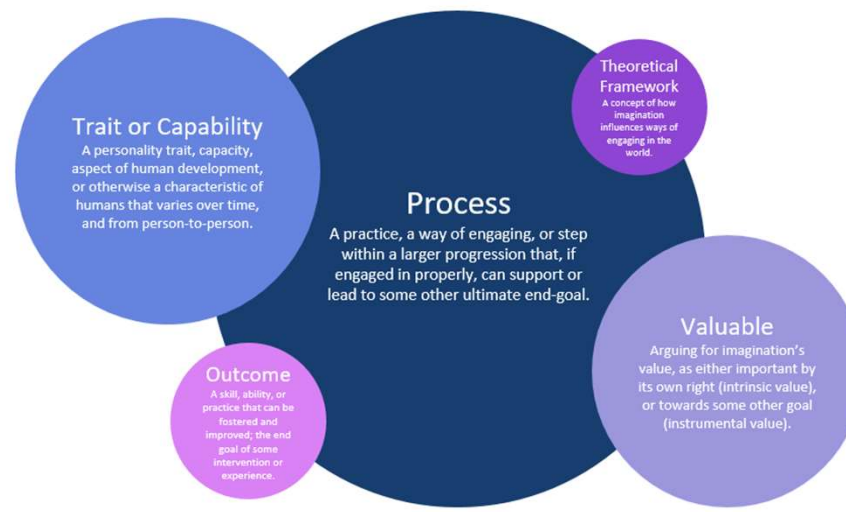
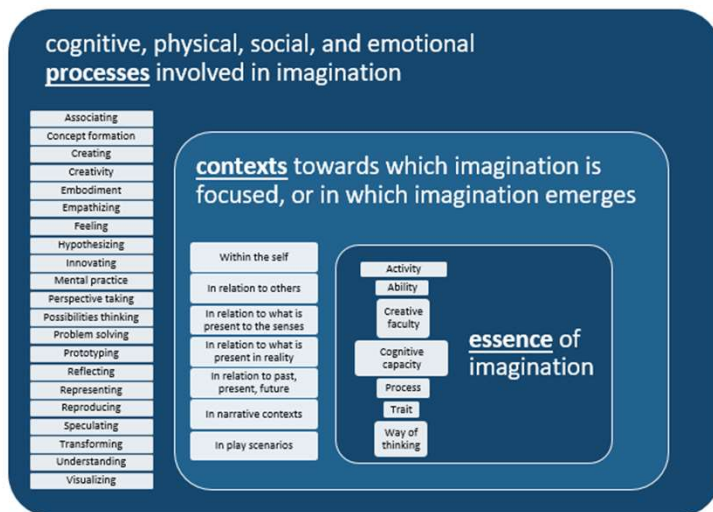
Gathering:

- definitions of imagination
- beliefs about imagination and its role in STEM practice and STEM education
- associations between imaginative ways of thinking and STEM practice/education
- levels of knowledge, curiosity, awareness, and interest related to addressing imagination in STEM
- current or intended pursuit of projects and practices that intentionally address imagination's role in STEM

Virtual Convening

- 3 Open-to-All Panel Presentations
- 4 By-Invitation Workshop Intensives
- 170 professionals
- Pre-recorded Perspectives Videos
- Draft Resources and Tools

Defining, Describing and Positioning Imagination



Fostering Imagination

Social & Physical Environments: Expressive Strategies & Contexts: Supporting Possibilities Thinking:

	Encourage social engagement		Leverage narrative		Challenge assumptions
	Attend to physical environments		Invite embodied experience		Invite creative inquiry
	Foster agency over resources		Evoke emotion		Scaffold awareness of alternatives
	Make room		Integrate the arts		Highlight relationships