

Who's Asking? Co-Constructing Research Questions with Informal Practitioners within a Networked Improvement Community

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BACKGROUND: Developing a research question is the basis of scientific inquiry. However, there is little scholarship regarding how research questions are co-created in partnerships. Through an intrinsic case study, we offer an analysis of researchers' own inquiry into how research questions were developed across six organizations through a shift in power and recognizing how our partnering organizations had different ideas and theories of change from one another.

RESEACH TEAM GOAL: Our goal as researchers was for the six organizations to develop and agree on one research question investigating adult interactions with children experiencing failure in making. There was an assumption that this approach would be more powerful in terms of producing knowledge for the field of informal learning environments.

One Case: Creative ReUse Center

"I wonder if the fact that this is a group of informal science educators thinking about failure-positive learning and focused on supporting youth towards independent discovery and thinking, lends itself towards attracting people, like myself, who are particularly open to collaborative or non-hierarchical research structures."

Initial Questions of Interest

"There is much more to do to develop pathways for adults to understand and support failure as an element of making and tinkering." (Jan. 12, 2024)

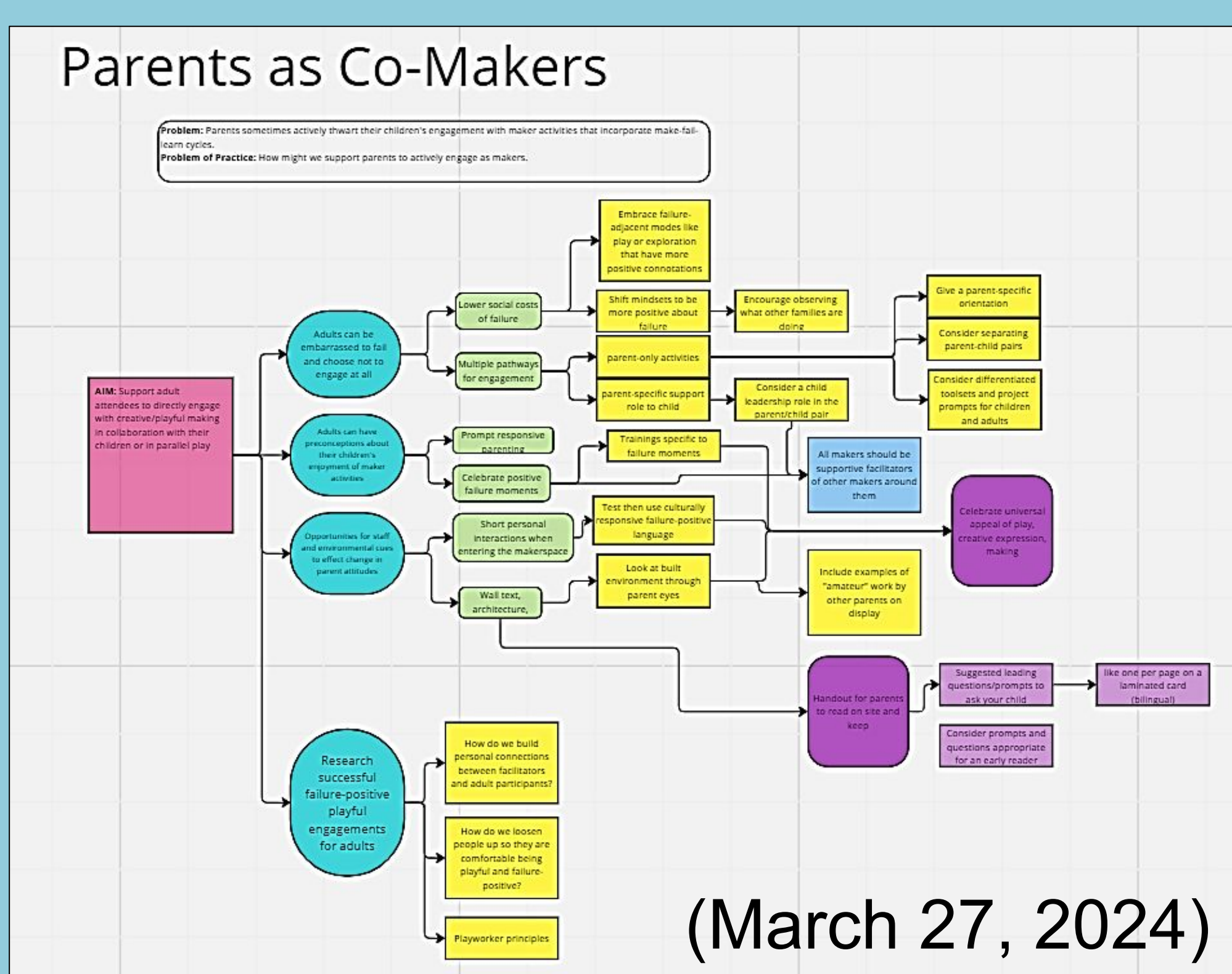
- How do you help an adult shift from a product-oriented mindset to a process-oriented mindset?
- How do we quickly explain an adult's role in youth making/tinkering (e.g. supporting vs solving the challenge for them)?
- How do we set expectations for what adults should be doing in a making/tinkering session?

How Might We (HMW) Questions

- HMW center adults as visitors in their own right?
- HMW support parents who are struggling to help support their children through moments of failure? (Feb. 28, 2024)

"Small group discussions with 2-3 partner organizations were useful for providing additional refinement through the project development process, and likely the change in who was determining the research question, served to shift power balance to a more collaborative model."

Driver Diagram



Final Research Study

Problem: Parents sometimes actively thwart their children's engagement with maker activities that incorporate make-fail-learn cycles.

Problem of Practice: How might we support parents to actively engage as makers?

Aim: Support adult attendees to directly engage with creative/playful making in collaboration with their children or in parallel play.

Approach: new signage and introduction/tool training curriculum to explicitly welcome adults to be makers, create adult-focused prompts, incorporate more advanced maker modes provide a warm-up activity design challenge, and change the background music to appeal to adults (June 10, 2024)



Scan the QR code for additional examples from the six organizations.



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