



Research + Practice Partnerships in Informal Settings

ABOUT CONNECTED COLLECTIONS

Connected Collections are meant to support professional learning conversations about a particular topic, in this case, Research + Practice Partnerships in Informal Settings. This Collection consists of 4-6 research briefs, short synopses of recent research published in peer-reviewed journals, each addressing some key aspect of practice related to research + practice partnerships in informal settings. The Collection also provides a set of overarching discussion prompts as well as links to other relevant resources.

collaborative research strategies in which practitioners generally play a secondary or minor role in defining questions, implementing studies, and making meaning of results. To date, most of this discussion has focused on research and practice partnerships in the K-12 setting. Fewer examples exist for educators working in informal settings. This collection of research briefs provides foundational readings and discussion points for consideration of why research and practice partnerships are equally relevant and important for informal settings such as afterschool, museum, and community-based organizations. organizations.

Overview

Based on evidence that the results of research are seldom sustained and that high quality educational practices are not often successfully scaled, there is a growing call for a new approach to science education improvement. Research must more closely take into account the needs and knowledge of practice. Practice must be better theorized so that it can be successfully adapted into new settings. An approach called “jointly negotiated research” brings researchers and practitioners together to jointly identify research questions, design and test improvement strategies, and analyze results. This approach is conjectured to lead to more relevant, usable, and sustainable results than traditional or even

Learning Goals

The research briefs have been organized to provide readers with a way to discuss and consider how jointly negotiated research in informal settings might be beneficial. The first brief provides the argument for why relevance needs to be the primary principle of research. The second brief describes a particular approach to jointly negotiated research, called Design Based Implementation Research. The next two briefs describe the results of studies, in a school district and community-based organization, respectively, where research was conducted in a joint manner. The last brief provides an example from a museum and explicitly describes how jointly negotiated research changed the ways in which researchers and practitioners determined “what counts” as learning in a museum setting.

Research about RESEARCH + PRACTICE PARTNERSHIPS IN INFORMAL SETTINGS

(Visit the links below to see a two-page brief of each summarized research article.)

1 Relevance as Rigor

Frequently, discussions of research and what makes research rigorous reverts to approaches such as randomized controlled trials (RCTs) that, by design, do not take local contexts and complexities into account. But studies have found that most improvement efforts with positive RCT results are not sustained one or two years later. In this paper Gutiérrez and Penuel argue for a reconceptualization of rigor that begins with researchers and practitioners jointly negotiating problems of practice and working together to investigate shared questions. Attention to local contexts, at the detailed daily level, and across all levels of implementation (e.g., institutional as well as teaching levels) is essential for making research relevant, rigorous, and sustainable. This paper can initiate a conversation about what kinds of research are needed to support and make change.

http://www.exploratorium.edu/sites/default/files/pdfs/brief_RelevanceAsRigor.pdf

2 Design-Based Implementation Research

Scaling up successful educational programs across larger systems requires that people in diverse roles—from educators and administrators to students and researchers—coordinate across complex institutional relationships in varying local contexts. Policy research has shown that top-down approaches to new program practices do not frequently result in effective classroom-level change. In this paper Penuel, Fishman, Cheng, and Sabelli propose design-based implementation research (DBIR) as a way to jointly negotiate, support, and scale-up effective educational programs. This paper describes a rationale and approach that can be adapted into informal settings.

http://www.exploratorium.edu/sites/default/files/pdfsbrief_DBIR.pdf

3 Jointly Negotiated Research in a District Context

In this article Cobb, Zhao and Dean report the results of a design research experiment in professional development for teachers of middle school mathematics. The authors describe the importance of developing a shared vision, among teachers, administrators, and researchers, of what high-quality mathematics look like; and detail strategies they developed for forming a community of practice that could develop this vision. This paper provides a view into the conditions that must be established to support joint research.

http://www.exploratorium.edu/sites/default/files/pdfs/brief_DistrictContext.pdf

4 Jointly Negotiated Research in a Community-Based Setting

In this study, Bang & Medin describe how they worked with Native American communities to design and study culturally-responsive science education summer camps. The authors describe how respecting and understanding Native conceptions of what “being alive” meant helped to deepen and complexify student engagement with science (e.g., defining a river as alive led to an investigation of the rich ways that rivers are teeming with and generators of life). This paper provides a picture of the kinds of new ways of thinking that can emerge from joint inquiry among researchers and practitioners.

http://www.exploratorium.edu/sites/default/files/pdfs/brief_CommunityBasedSetting.pdf

5 What Counts as Learning When Researchers and Practitioners Work Together

In this paper Bevan, Gutwill, Petrich and Wilkinson describe a jointly negotiated research project that examined learning in a Tinkering Studio. The paper describes the ways in which joint research+practice review of video data led to new insights for researchers about how to think about learning in informal settings and new practitioner habits of working from evidence to support claims. The paper provides a vision of the benefits of joint work.

http://www.exploratorium.edu/sites/default/files/pdfs/brief_LearningThroughTinkering.pdf

WHAT DO YOU THINK?

How would research, as you know it, be different if practitioner voices were at the table as questions were formed, methods designed, and meaning made of results?

In what ways did examples in the readings highlight how the research-practice partnerships led to stronger results than could have happened with either researchers or practitioners acting alone?

What kinds of “problems of practice” (challenges in your educational strategies or implementation) are you grappling with and how might working with researchers help you to gain traction on these problems?

RELATED RESOURCES

Research-Practice Partnerships: A Strategy for Leveraging Research for Educational Improvement in School Districts

<http://forumfyi.org/files/R-P%20Partnerships%20White%20Paper%20%20Jan%202013%20-%20Coburn%20Penuel%20&%20Geil.pdf>



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