

Design-Based Implementation Research: An Emerging Methodological Model for Conducting Design Research Within Educational Systems

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Britte Haugan Cheng, SRI International
Nora Sabelli, SRI International
Andy Krumm, SRI International
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Session Overview

- Brief Introduction to DBIR
- Overview of the posters
- Interaction with posters and each other
- Discussion by John Easton
- General Q&A

Where We Begin

- Many promising educational interventions have been developed, validated, tested...Then what?
- The majority fade away as funding ends or attention turns elsewhere
- A few are sustained in (or near) the contexts where they were developed
- A very few are brought to scale and are used across settings/contexts
- Why is the rate of “success” so low?



A Validity Problem

- Interventions are developed in “hothouse” environments
- Researchers seek to reduce sources of variation in evaluations to increase internal validity
- Funded research focuses more on developing and validating interventions from basic research (Type I translation) than on understanding or closing gaps between research and practice (Type II translation)

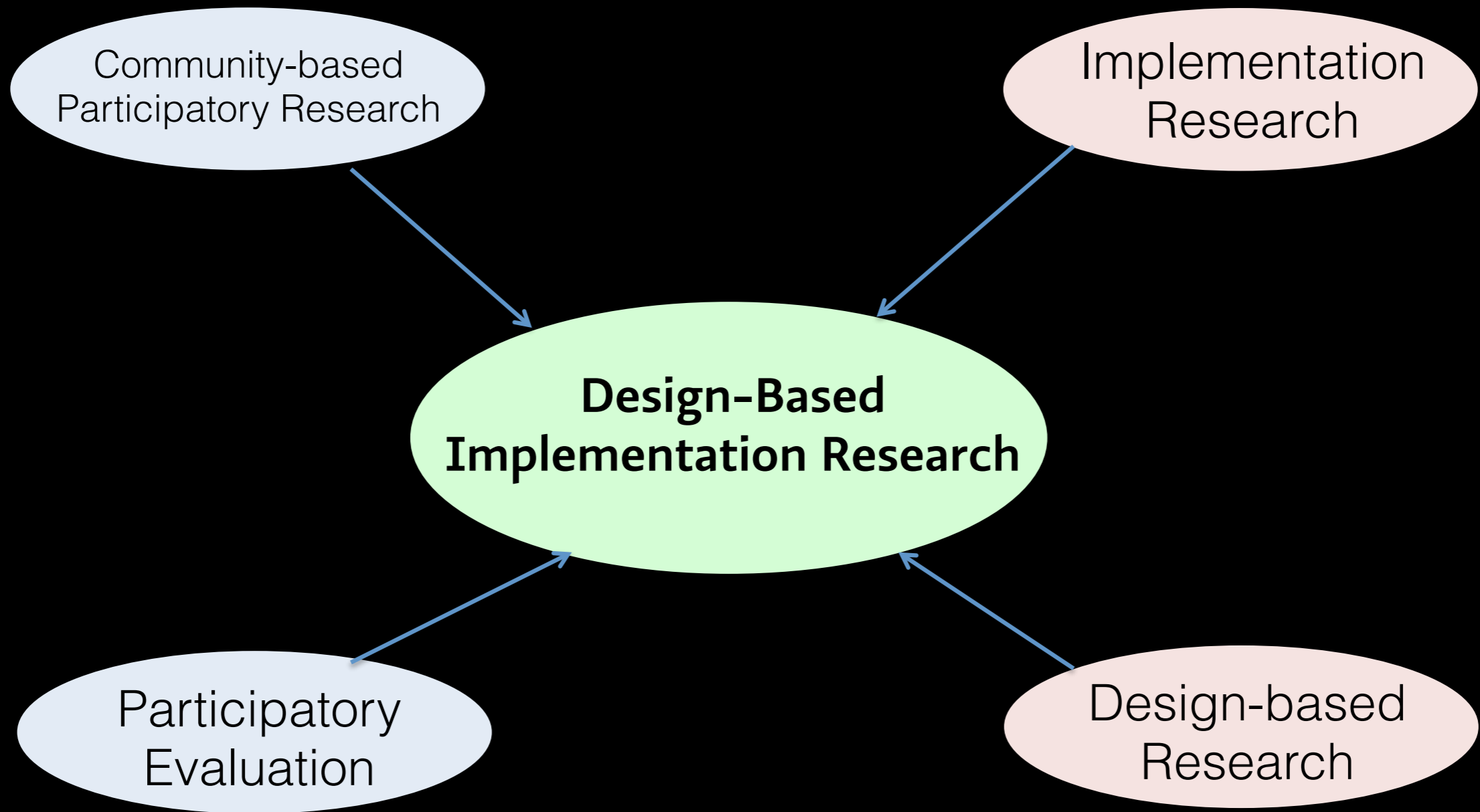
Design-Based Implementation Research

- Blends learning sciences and policy implementation research traditions and methods
- Learning sciences: iterative, collaborative, guided by and informing theories of learning/teaching
- Policy implementation: focus on conditions for implementation effectiveness, guided by and informing theories of institutional change and organizational learning. Focus on the design of systems and infrastructure

DBIR Principles

1. A focus on jointly-defined problems of teaching and learning practice
2. A commitment to iterative, collaborative design
3. A concern with developing knowledge and theory through disciplined inquiry
4. A goal of developing capacity for sustaining change in systems

Source: Penuel, W. R., Fishman, B., Cheng, B. H., & Sabelli, N. (2011). Organizing research and development at the intersection of learning, implementation, and design. *Educational Researcher*, 40(7), 331–337.



The Posters

- The posters represent *cases* of DBIR and various aspects of DBIR
- Each tells a different story
- Most explore theory
- Some explore policy
- Some explore methods and findings

The Posters

Theory & Cross-Sector Perspectives

- Theory and Methods for DBIR
Andrew Krumm (SRI), Jennifer Russell (Pittsburgh),
Kara Jackson (McGill)
- Taking a Societal Sector Perspective on Youth
Learning and Development
Milbrey W. McLaughlin and Rebecca A. London (Stanford)

The Posters

Designing Across Settings for DBIR

- **Adaptation by Design: A Context-Sensitive, Dialogic Approach to Interventions**
Ben R. Kirshner (Colorado)
- **The Principled Coordination of Learning Across Contexts: Cross-Setting Educational Interventions as an Emerging DBIR Focus**
Britte Haugan Cheng (SRI), Bronwyn Bevan (Exploratorium), Vera Michalchik (SRI), Phillip Bell (Washington)

The Posters

Designing for Principled Adaptation

- Supporting Teachers in Schools to Improve Their Instructional Practice: A Perspective from DBIR
Hilda Borko (Stanford), Janette Klingner (Colorado)
- Designing for Productive Adaptations of Curriculum Interventions
Angela Haydel DeBarger (SRI), Jeffrey M. Choppin (Rochester), Yves Beauvineau (Denver Public Schools), Savitha Moorthy (SRI)

The Posters

Designing Across Levels in DBIR

- A School District-University Partnership for Innovation in Elem. Science Teaching & Learning
Kari Shutt (U.Washington - Seattle), Angie DiLoreto (Bellevue School District), Carrie T.Tzou (University of Washington - Bothell), Nancy J.Vye, Leslie R. Herrenkohl, Andrew W. Shouse, John D. Bransford, Philip L. Bell, Giovanna Scalone, Andrew E. Morozov, Thomas Hank Clark (U.Washington - Seattle), Laura Gaylord (Bellevue School District)

The Posters

Evidence Standards in DBIR

- An Evidence Framework for DBIR
Barbara Means and Christopher Harris (SRI)
- Investigating and Supporting Improvements in the Quality of Mathematics Teaching & Learning at Scale
Erin Craig Henrick, Paul A. Cobb, and Thomas M. Smith (Vanderbilt), Michael N. Sorum (Fort Worth Ind. School District)

The Posters

Infrastructures in Support of DBIR

- Taking Education Design on the Road: Fifteen Years and Counting of a Design-Based Practice System
Lauren B. Resnick, Jimmy Scherrer, Nancy Israel (U. of Pittsburgh)
- More than a Network: Building Communities for Educational Improvement
Jonathan R. Dolle (Carnegie Foundation for the Adv. of Teaching), Louis M. Gomez (UCLA), Anthony S. Bryk (Carnegie Foundation)
- Building an Infrastructure for Education Research and Improvement: The Strategic Education Research Partnership (SERP) Model
Suzanne Donovan (SERP Institute), Catherine Snow (Harvard), Phil Daro (The Public Forum On School Accountability)

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the STUDY

of EDUCATION

Coming Soon

Fishman, B., Penuel, W. R., Allen, A., & Cheng, B. H. (Eds.). (2013). Design-based implementation research: Theories, methods, and exemplars. National Society for the Study of Education Yearbook, Vol. 112(2). New York: Teachers College Record.

Be thinking about...

- Issues and themes across the posters
- Challenges that may impede DBIR work
- How do we advance DBIR work?

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Discussion

John Q. Easton

Director of the

Institute of Education Sciences

U.S. Department of Education

What do you think about...

- Issues and themes across the posters
- Challenges that may impede DBIR work
- How do we advance DBIR work?