

# Framework for Conceptualizing and Measuring Fidelity in Applied Research Studies and Initiatives

Carl J. Dunst, Ph.D.  
Orelena Hawks Puckett Institute  
Asheville, North Carolina

Presentation made at the Office of Special Education Programs  
Project Directors Conference, Washington, DC, July 20, 2011.

## Purpose

- Describe a framework for differentiating between two *types* and two *elements* of fidelity from an implementation sciences perspective
- Implementation science is concerned with an understanding of the processes and procedures that promote or impede the transfer and adoption and use of evidence-based intervention practices in real-world contexts (Kelly & Perkins, in press)

---

Kelly, B., & Perkins, D.F., (Eds.). (in press). *Handbook of implementation science for psychology and education*. Cambridge, England: Cambridge University Press.

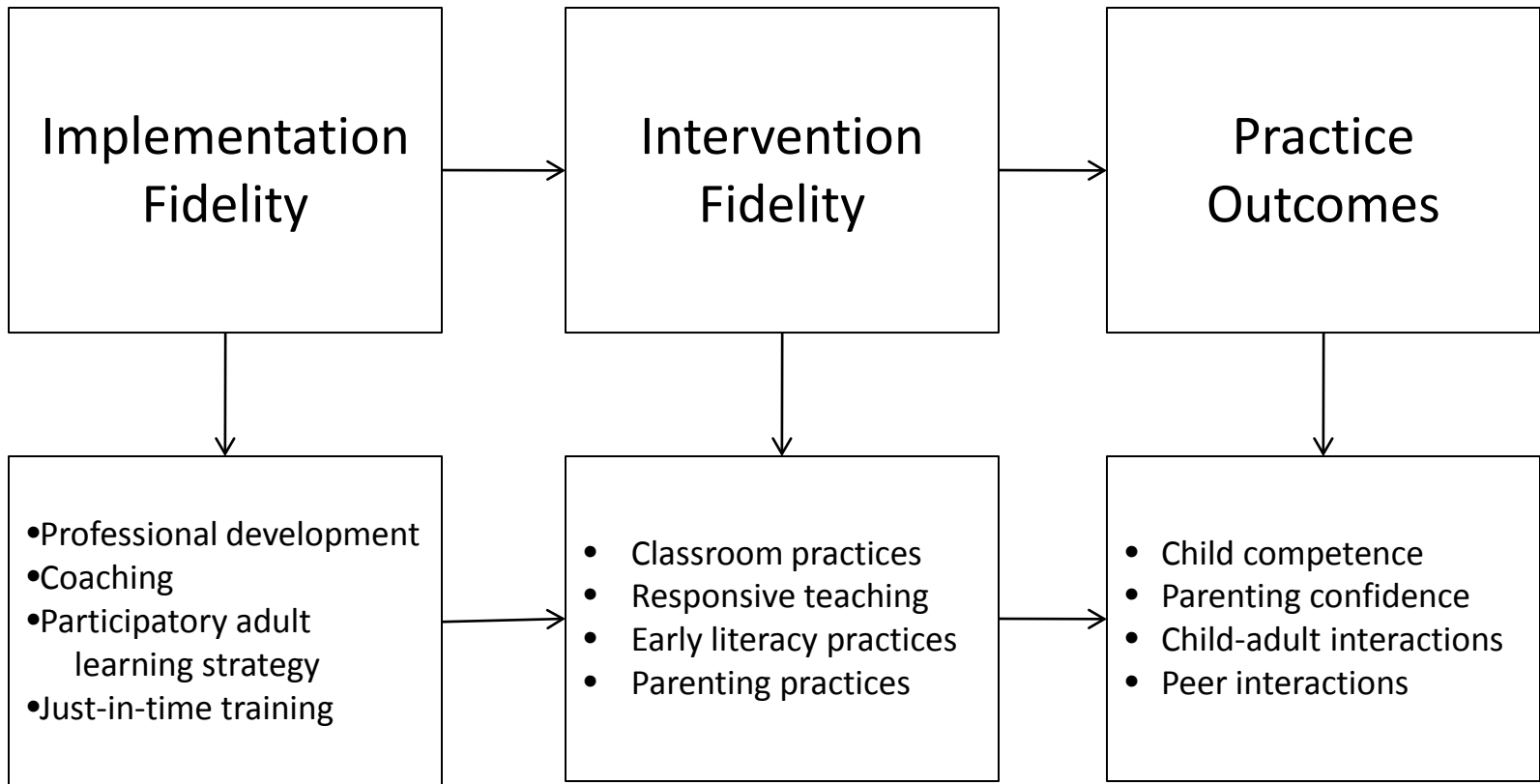
## Two Types of Fidelity

- ***Implementation fidelity*** refers to the degree to which coaching, inservice training, and other types of professional development are conducted and implemented in ways that promote adoption and use of evidence-based intervention practices
- ***Intervention fidelity*** refers to the degree to which evidence-based practices are adopted and used in an intended manner by practitioners or parents and have expected or hypothesized effects

## Relationship Between the Two Types of Fidelity and Practice Outcomes



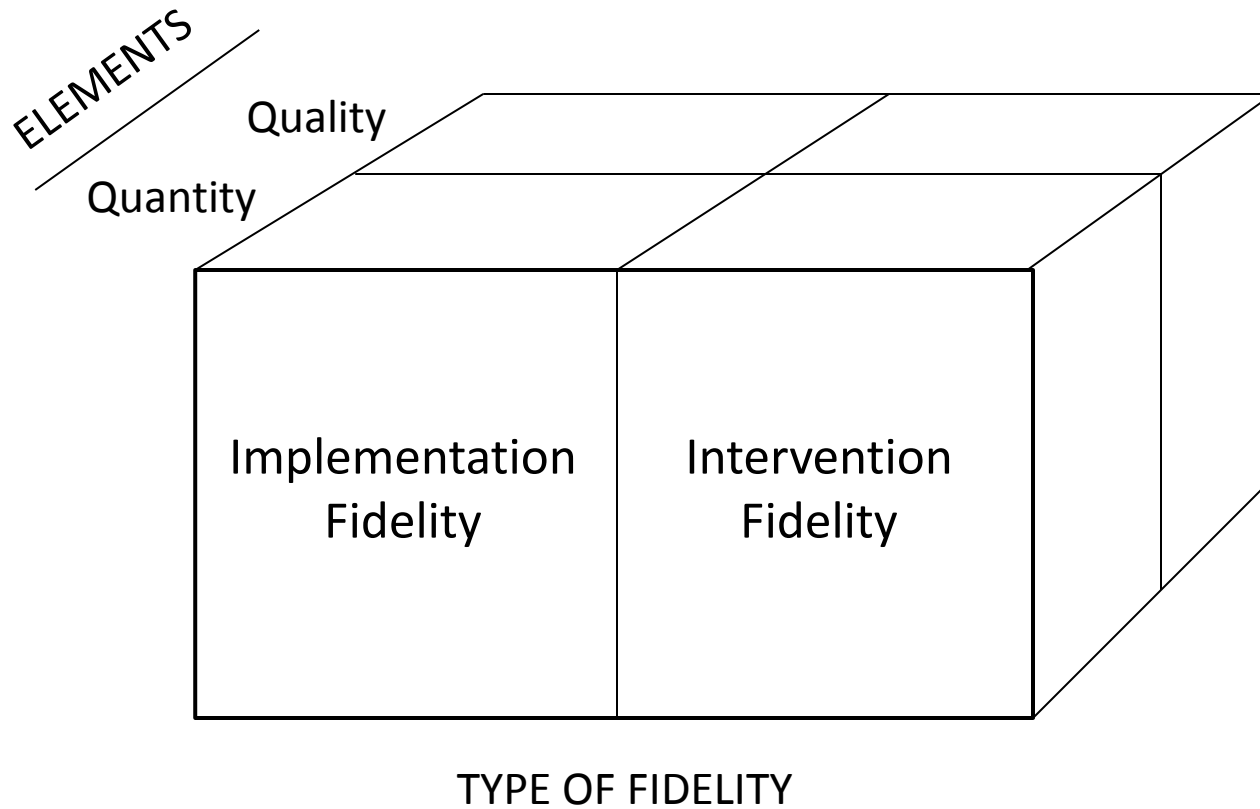
# Examples of Different Types of Fidelity and Outcomes



## Two Elements of Fidelity

- **Quantity** of fidelity refers to the degree of exposure to the practices that are intended to promote the adoption and use of evidence-based practices. Quantity includes, but is not limited to, how much, how frequently, and how often practices are used (e.g., dosage).
- **Quality** of fidelity refers to how well evidence-based practices were implemented and how responsive intended audiences were to the practices. Quality includes, but is not limited to, the development-enhancing characteristics of practices, the quality of instructor-learner interactions, and learner judgments of the social validity of the practices.

# Expanded Framework for Conceptualizing and Measuring Implementation and Intervention Fidelity



## Hypothesized Relationships Among the Fidelity Measures

- *Variations in implementation fidelity should be related to variations in intervention fidelity.* Tests of the hypothesis include evaluation of the relative importance of the *quantity* and *quality* of implementation fidelity, and the interactions between the types and elements of fidelity.
- *Variations in intervention fidelity should be related to variations in practice outcomes.* Tests of the hypothesis include evaluation of the relative importance of the *quantity* and *quality* of intervention fidelity, and the interactions between the types and elements of fidelity.
- *Variations in intervention fidelity should mediate the relationship between implementation fidelity and practice outcomes.* Tests of the hypothesis include evaluation (to the extent possible) of the complex relationships between the *quantity* and *quality* of implementation and intervention fidelity and the outcomes of evidence-based practices.



# Factors Influencing Degree of Implementation and Intervention Fidelity

