Using Intervention and Implementation Fidelity Frameworks to Study Variations in Implementation of Quality Interventions (VIQI)

VIQI
Variations in Implementation
of Quality Interventions

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VIQI Project Goals

- To look at the causal effect of dimensions of quality on child outcomes

- To determine whether there are thresholds in this effect (non-linearity)

- To understand variation in impacts and implementation of quality enhancement efforts across ECE setting types and across initial levels of quality

VIQI Project Approach

- Pilot study followed by full-scale study

- Multi-group random assignment design

- Head Start and community-based settings with mixed-age, 3- and 4-year-old classrooms

- Assignment to different curricular and professional development models as vehicle for inducing change in different dimensions of quality and in child outcomes

VIQI's Process Study Research Questions

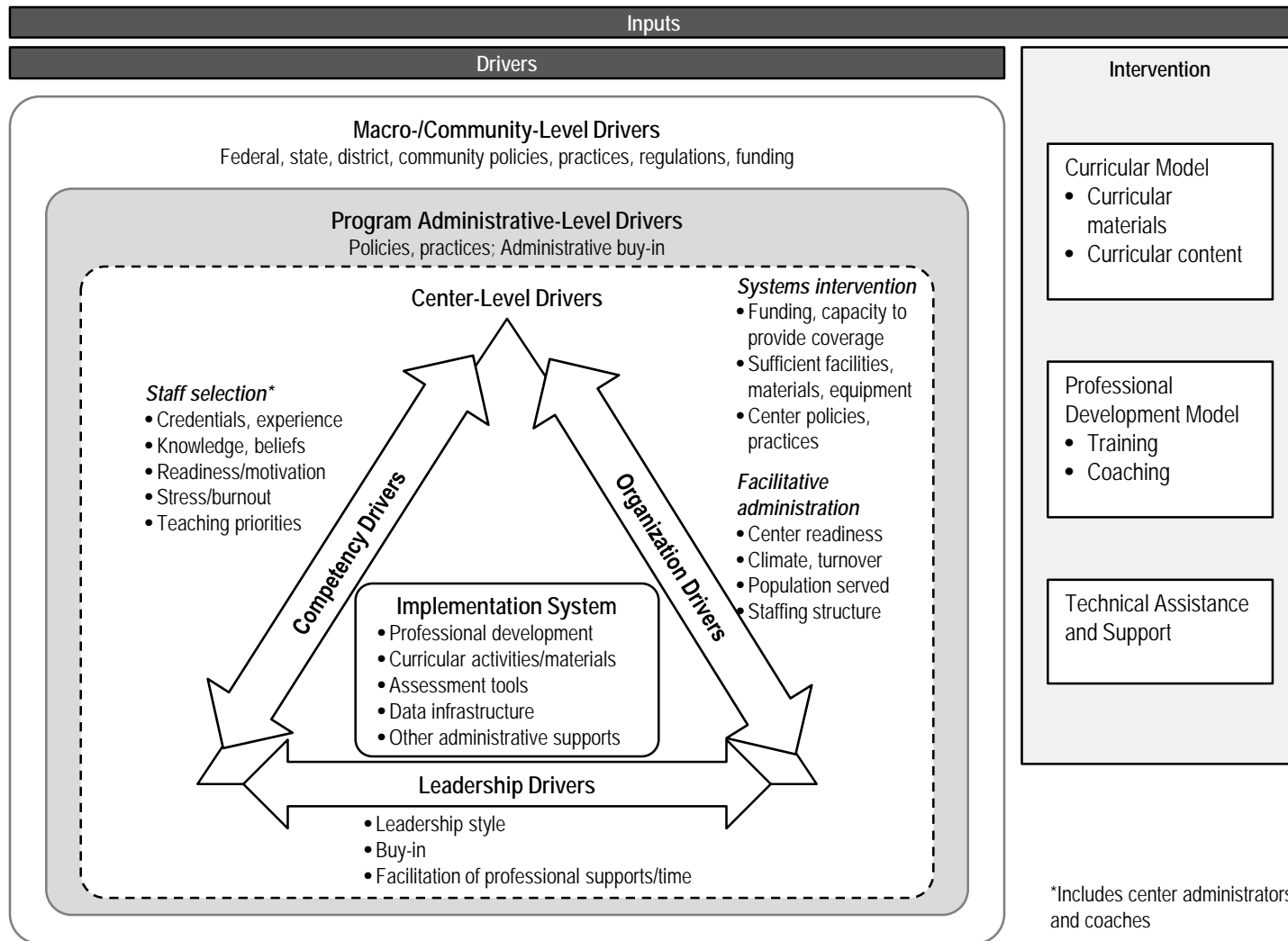|	
Sample characteristics:	What are the characteristics of participating centers, staff, and children? Which characteristics are drivers of fidelity of implementation? How do these drivers relate with each other?
Implementation systems:	What implementation systems support the delivery of the interventions in classrooms? How much variation is there in participation of these supports? What drivers seem to support or inhibit participation?
Fidelity of implementation:	To what degree are the interventions delivered as intended? How much variation is there in fidelity of implementation of the interventions? What drivers seem to facilitate or inhibit successful implementation and fidelity to the intended intervention models?
Service contrast:	What is the relative treatment contrast achieved in teacher practices targeted by the interventions?

Intervention Framework
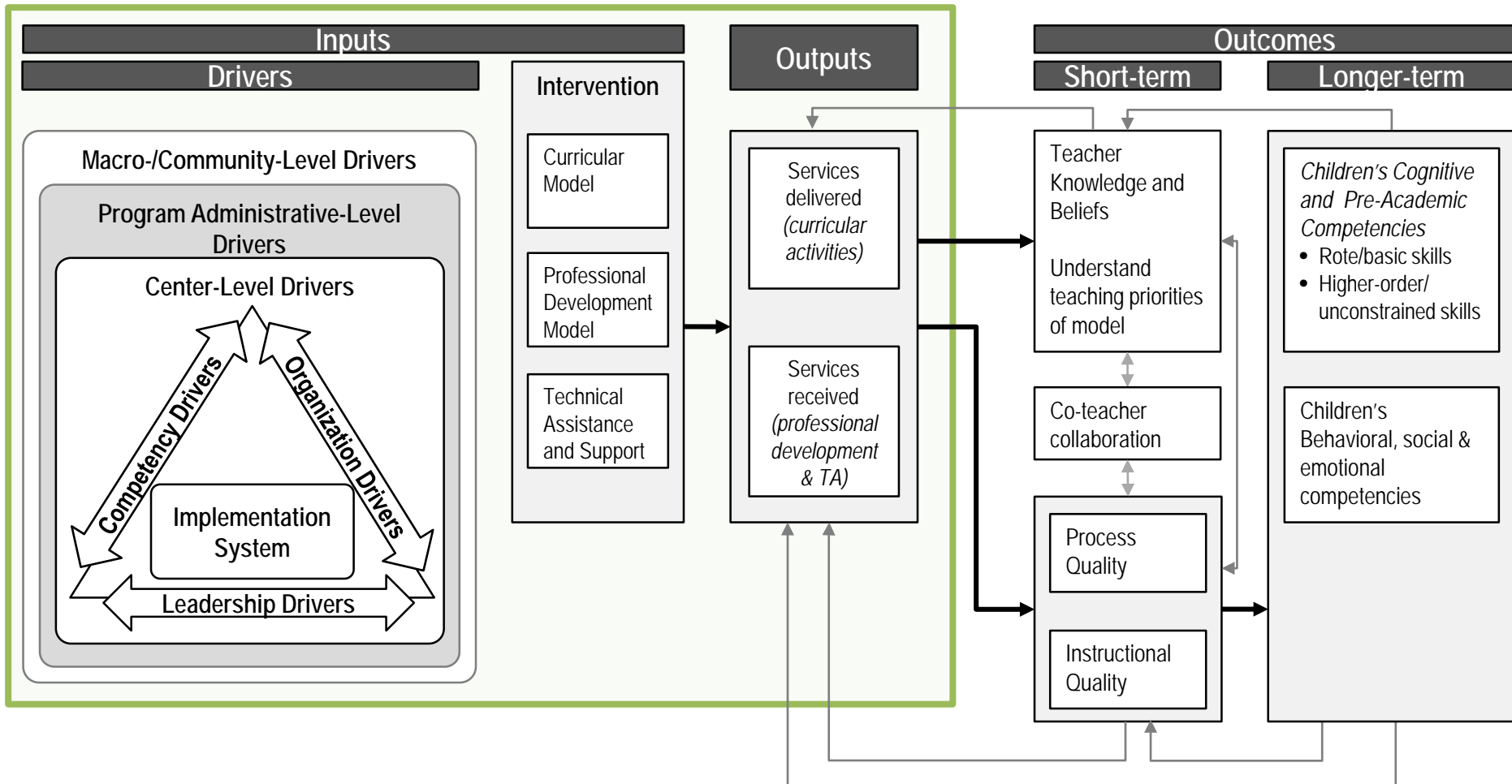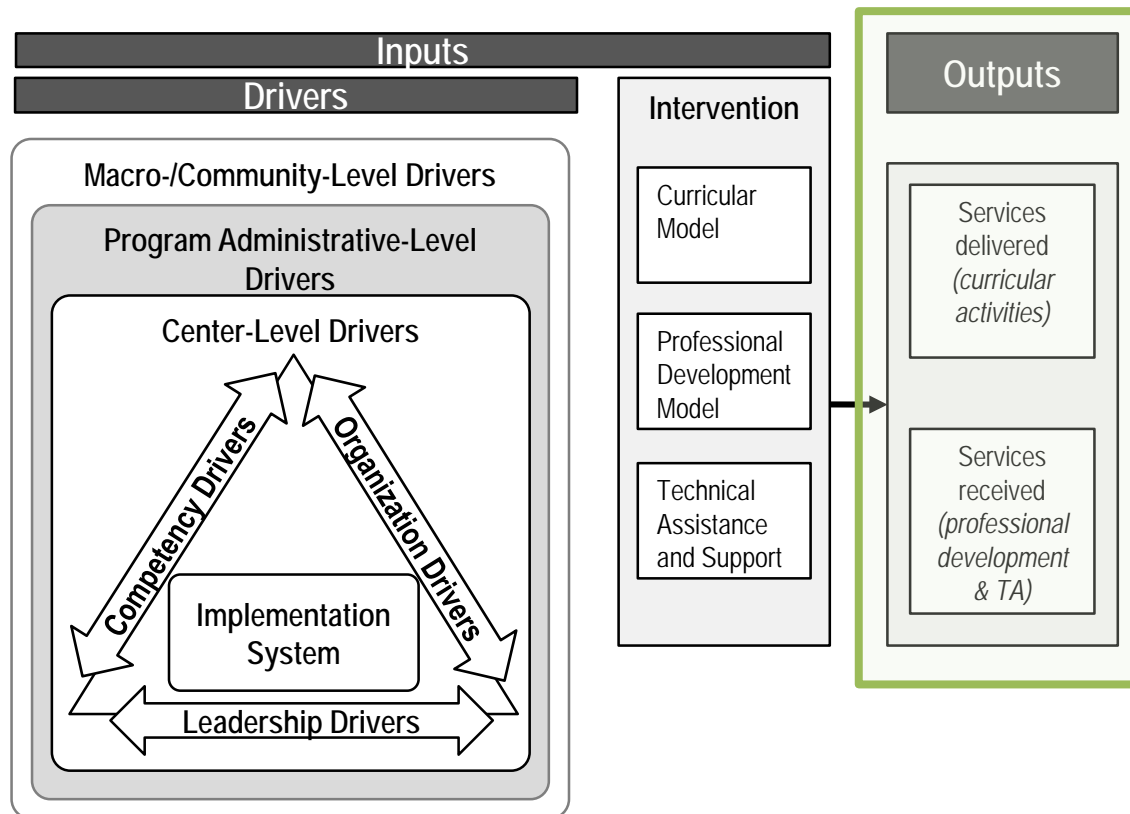
Implementation Framework
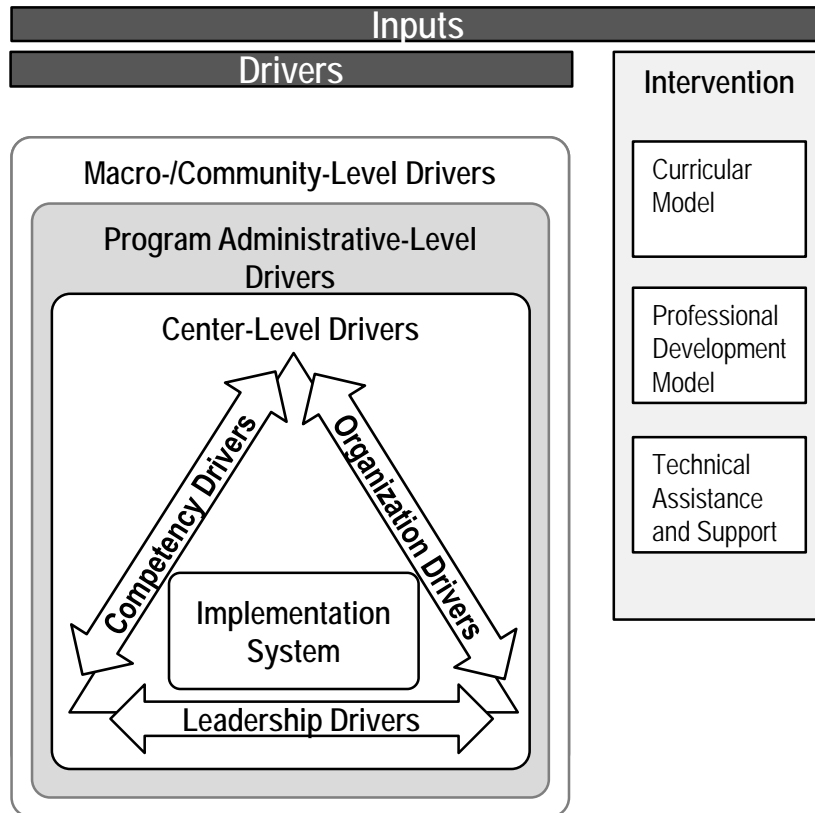
- Takes an ecological systems approach

- Utilizes the National Implementation Research Network frameworks (NIRN, 2016) as a base to provide a wider picture of the proximal and distal drivers of implementation
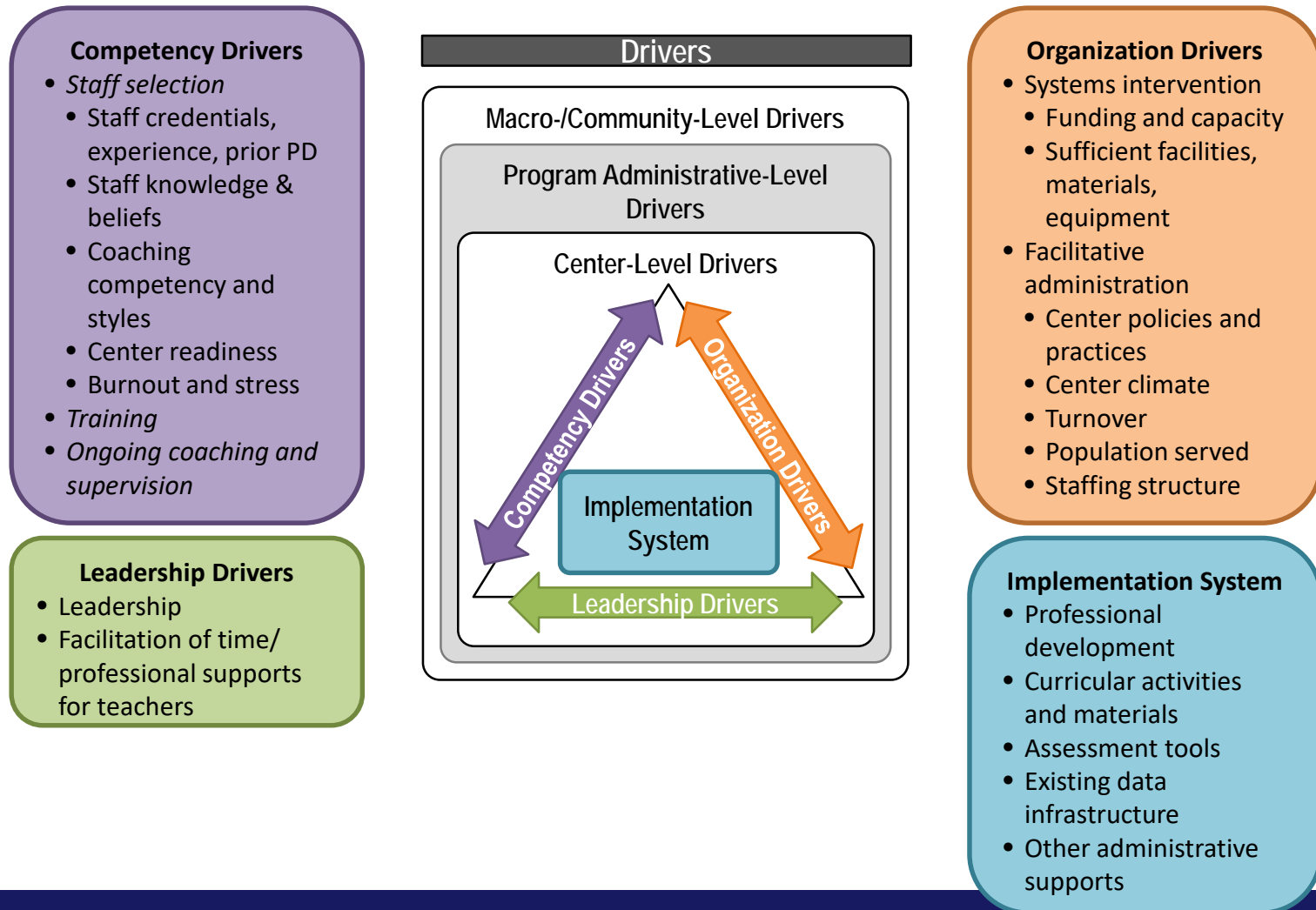
Implementation Framework

Implementation Framework

VIQI Measurement Approach: Example

Competency Drivers
- *Staff selection*
  - Staff credentials, experience, prior PD
  - Staff knowledge & beliefs
  - Coaching competency and styles
  - Center readiness
  - Burnout and stress
- *Training*
- *Ongoing coaching and supervision*

Leadership Drivers
- Leadership
- Facilitation of time/ professional supports for teachers

Drivers

Macro-/Community-Level Drivers

Program Administrative-Level Drivers

Center-Level Drivers

Competency Drivers

Organization Drivers

Implementation System

Leadership Drivers

Organization Drivers
- Systems intervention
  - Funding and capacity
  - Sufficient facilities, materials, equipment
- Facilitative administration
  - Center policies and practices
  - Center climate
  - Turnover
  - Population served
  - Staffing structure

Implementation System
- Professional development
- Curricular activities and materials
- Assessment tools
- Existing data infrastructure
- Other administrative supports

Summary

- Created a conceptual model that took into account an implementation fidelity framework

- Used the framework to guide our measurement approach

- Plan to use the framework to interpret findings