



# Can We Bridge the Implementation Gap? Educator Preparation for Real-World Contexts

# Meet Our Panelists



Center on  
**GREAT TEACHERS  
& LEADERS**  
at American Institutes for Research ■



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# Now Let's Meet!

✧ TodaysMeet:

- Room Name: BridgingtheGap
- [Link for the Meeting Room](#)

# The Challenge and the Opportunity

- ✧ Ensuring that educators are adequately prepared to implement evidence-based classroom practices.
- ✧ Identifying strategies and resources for structuring effective practice-based learning opportunities across educational settings.

# What Are Practice-Based Opportunities?

✧ ***Practice-based opportunities*** are those that afford preservice and inservice teachers opportunities to integrate both content and pedagogy acquired through coursework into instruction.

# Infrastructure Challenges

## ✧ Structural

- Coursework intensive

## ✧ Limited Opportunities

- High-quality field experiences

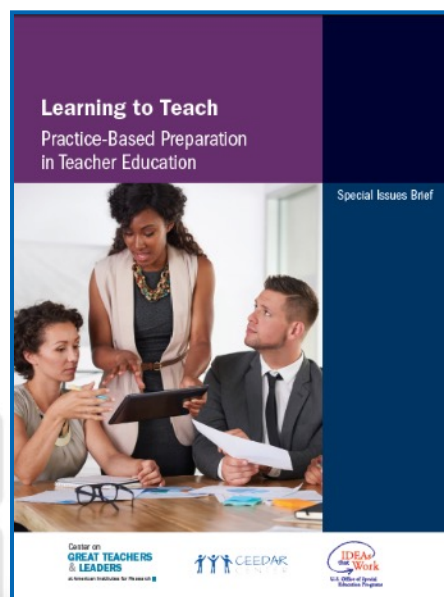
## ✧ Program Approval and Certification Standards

- Perceived inflexibility

# Learning to Teach: Brief and Framework

✧ A framework for fully incorporating effective, deliberate opportunities into practice.

– [Link for Learning to Teach](#)



# Essential Features of Deliberate Practice



## MODELING

- Candidates are provided examples of what expert performance looks like in practice.



## SPACED LEARNING

- Candidates are offered sustained and repeated opportunities to practice knowledge and, over a period of time, to deepen expertise.



## VARIED LEARNING

- Candidates are provided with opportunities to practice their knowledge and skills across varying contexts, with a diverse range of student learners, and with differing degrees of support.



# Essential Features of Deliberate Practice Part 2



## COACHING AND FEEDBACK

- Candidates are provided explicit coaching and constructive feedback throughout practice opportunities.



## ANALYZING AND REFLECTING

- Candidates are provided opportunities to engage in analysis and reflection of practice to deepen their knowledge and expertise.



## SCAFFOLDING

- Candidates are provided opportunities to practice their knowledge and skills with experiences that gradually increase in complexity over time with fading support from teacher educators or supervisors.

# Practical Examples

Microteaching

Case-Based  
Instruction

Virtual  
Simulations and  
Lab-Like  
Experiences

Coursework-  
Aligned, Field-  
Based  
Experiences

Video Analysis

Tutoring

Lesson Study

Coaching



Modeling



Spaced Learning



Varied Learning



Coaching  
and Feedback



Analyzing  
and Reflecting



Scaffolding

# Supporting Framework

## Step 1

- Identify critical skills and pedagogy.

## Step 2

- Assess and consider program quality.

## Step 3

- Analyze practice-based opportunities.

## Step 4

- Develop an action plan to strengthen efforts.

# Let's Discuss

✧ What is keeping you from implementing practice-based opportunities?





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and Human Performance**

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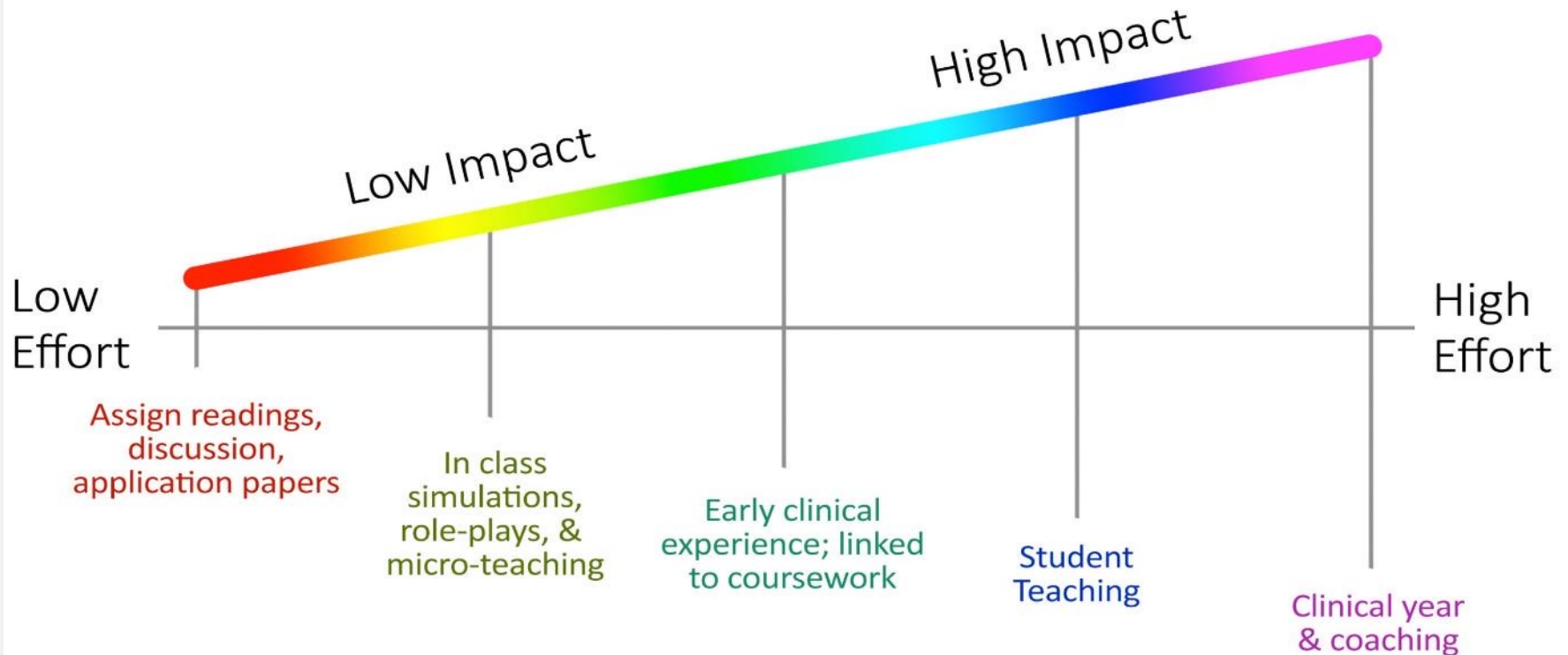
# STRENGTHENING EFFORTS: ENHANCING PRACTICE-BASED OPPORTUNITIES IN COURSEWORK AND FIELD EXPERIENCES

Mary E. Little, PhD

University of Central Florida

# A Continuum of Options for Developing Practice

Any of these methods may improve practice



From CEEDAR Convening, 2016



## COURSE-BASED PRACTICE EXPERIENCES

- Microteaching
- Case-Based Instruction
- Virtual Simulation
- Tutoring Within Clinical Experiences
- Lesson Study
- Video Analysis and Feedback

## MICROTEACHING

### An Overview

- Microteaching is a technique aiming to prepare teacher candidates for the real classroom setting (Funmi, Amobi, & Irwin, 2009).
- **Microteaching** also can be defined as a teaching technique especially used in teachers' preservice education to prepare them systematically by allowing them to practice teacher behaviors.
- Implemented in early methods courses to practice pedagogical skills (e.g., feedback, questioning) in groups and/or video.



## CASE-BASED INSTRUCTION

Samples and overview in  
mathematics from the  
University of Oregon

<http://pages.uoregon.edu/moursund/Math/pbl.htm>

- Candidates analyze cases of instruction across various contexts as a method for advancing conceptual understanding of new pedagogical content as well as their ability to analyze instruction and student learning in real-life teaching situations (Kagan & Tippins, 1991).
- Implemented in most methods courses to discuss and enhance application of instruction and interventions to address video-enhanced case studies. Currently, 13 video case studies of students with disabilities have been developed for teacher candidates in elementary education programs.

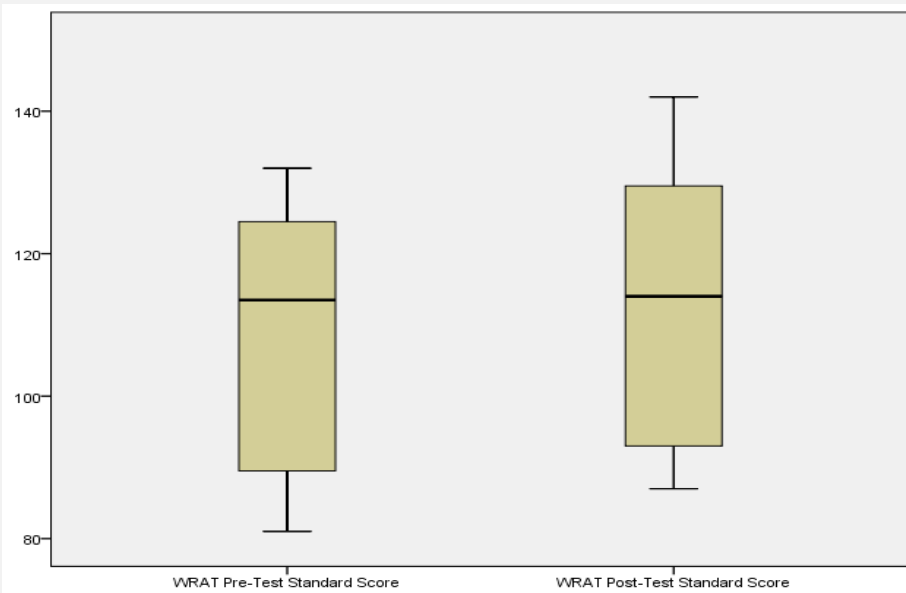
## TeachLivE:

- Is a mixed-reality simulation in which 10 minutes is equivalent to 45 minutes to an hour of real time.
- Provides teaching practice to enhance the ability to pause, reflect, and redo pedagogical skills.
- Is often implemented with increased time for teacher candidates to practice necessary teaching skills.

## VIRTUAL SIMULATIONS



## TUTORING WITHIN CLINICAL EXPERIENCES



- Clinical experiences in the on-campus reading and mathematics clinic are aligned with practice-based learning in reading and mathematics diagnostic and intervention planning courses.
- K–8 students from the local communities attend the clinic while teacher candidates assess, develop, and deliver instructional/intervention plans, and continuously progress-monitor under the supervision of course faculty.
- Video and synchronous feedback are provided.



## VIDEO ANALYSIS AND FEEDBACK

Practice in which teacher candidates' instructional experiences are captured on video (either synchronous or not) and are used for specific feedback, analyses, and/or discussion regarding teaching practices.



## LESSON STUDY AND ACTION RESEARCH

A collaborative, practice-based approach that involves teams of preservice and/or novice teachers in collaboratively:

- Analyzing student data, academic standards, and curriculum;
- Planning a lesson based on the analysis;
- Implementing instruction with students;
- Analyzing instruction on student learning; and
- Debriefing about the lesson and student results to plan next steps.

Implemented during student teaching and the initial years to deepen pedagogical content knowledge through synchronous meetings, student teaching seminars, and mentoring sessions (face-to-face or online).



## FINAL THOUGHTS

- Linking teacher education to student outcomes is difficult.
- However, we can strengthen links between our preparation experiences and what candidates do instructionally.
- We must learn what effects teacher practice has on important student outcomes.
- We can strengthen these links by:
  - Building school-university partnerships focused on improving student outcomes
  - Allocating more time and effort to promoting the use of a signature set of practices (high-leverage practices and evidence-based practices).
  - Studying preparation, practice, and learning using rigorous research designs
    - From CEEDAR Convening, 2016

# Intensive Intervention Certificate Project: One Way to Bridge the Implementation Gap

Devin Kearns, PhD

National Center on

**INTENSIVE INTERVENTION**

at American Institutes for Research ■

**UConn** | NEAG SCHOOL  
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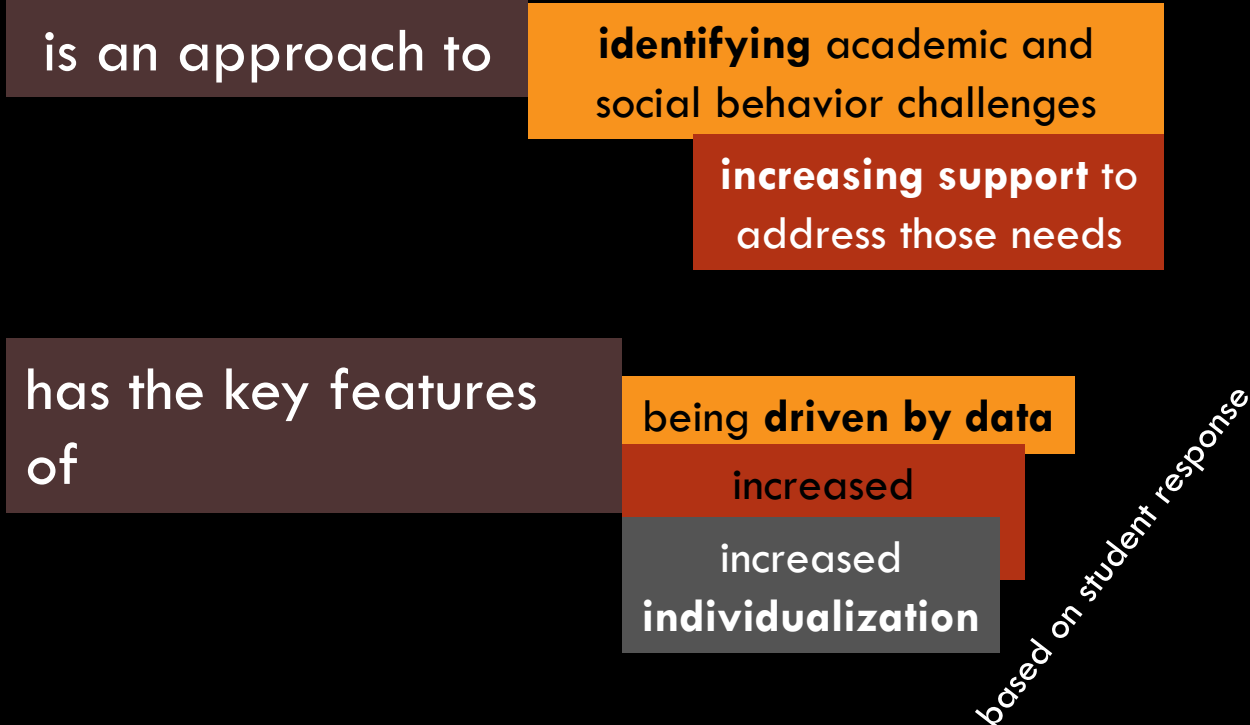
# Key Points

- What are intensive intervention and data-based individualization (DBI)?
- How is the project designed to close the implementation gap?
  - Changing programming
  - Selecting good content
  - Using many features of deliberate practice
- How well is the project aligned with the expectations?



# Intensive Intervention and DBI

# What is intensive intervention?



# Who needs intensive intervention?

students

with...

disabilities

low academic  
achievement

intensive or frequent  
behavior problems

who...

have not responded

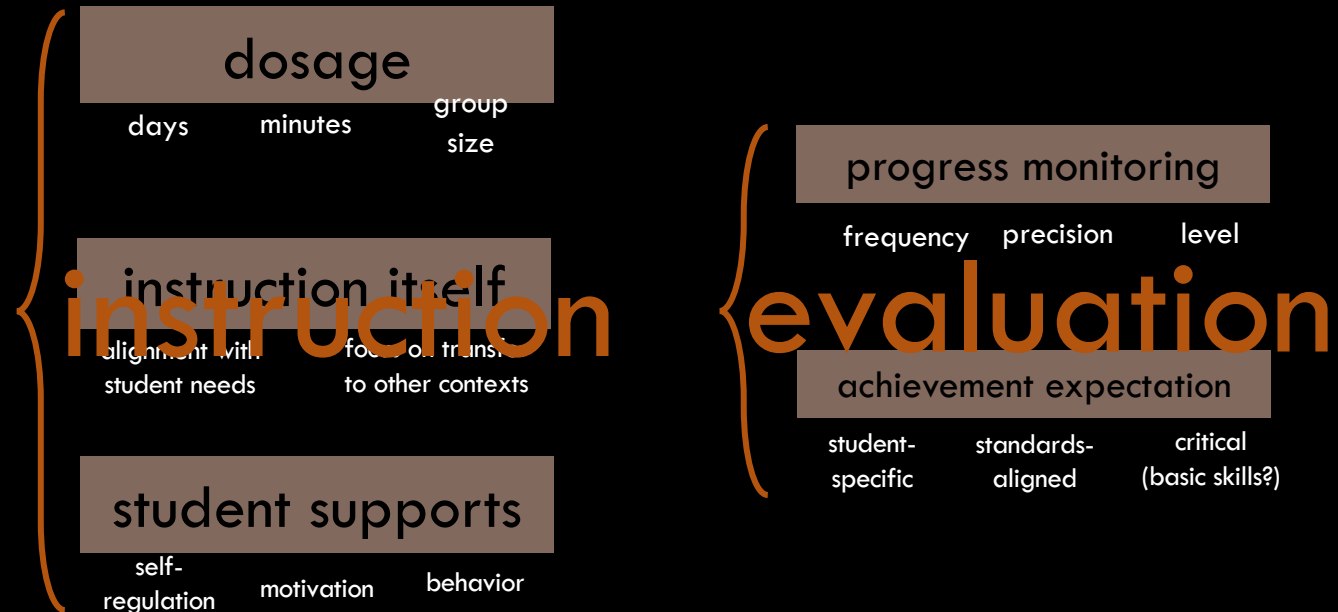
to...

secondary prevention

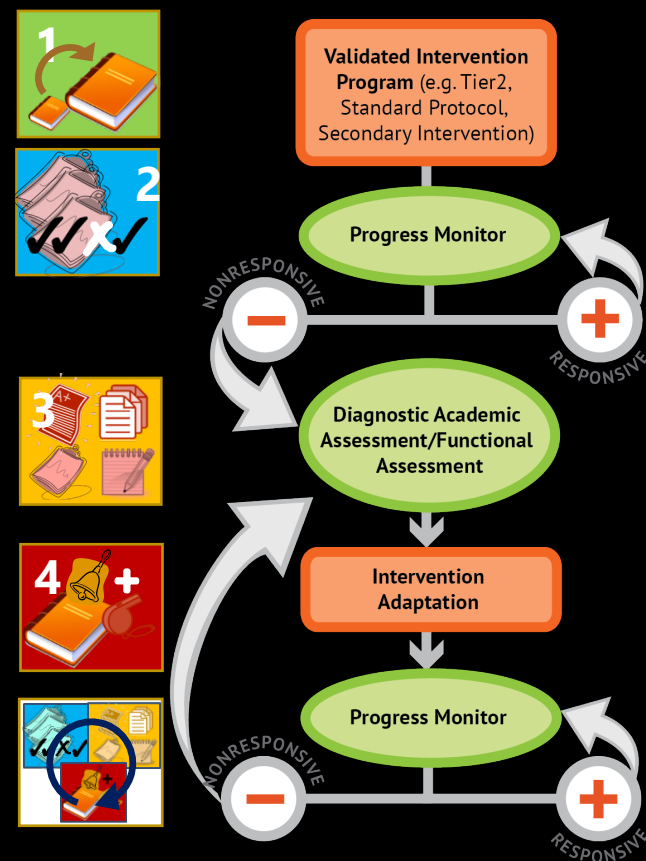
delivered...

with fidelity

We make changes to



# Implementation of intensive intervention: DBI



# DBI: Is it useful and used?

Useful?

Yes

DBI systems result  
in increased  
student  
performance.  
Fuchs & Deno, 1982  
Schumaker et al., 2005

Used?

Not so much

There are no  
estimates of its  
prevalence, but it  
has not become  
widely used.

# How do we increase the level of implementation?

## Change programming

- Redesign professional development for inservice teachers
- Redesign preservice training

## Select content

- Focus
- Duration
- Coherence

## Include many features of deliberate practice

- Modeling
- Spaced learning
- Varied learning
- Coaching and feedback
- Analyzing and reflecting
- Scaffolded practice

# Increasing the level of implementation

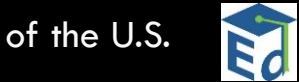
## Change programming

- Redesign professional development for in-service teachers
- Redesign pre-service training



# National Center on Intensive Intervention (NCII) at American Institutes for Research

- Is funded by the U.S. Department of Education
- Is designed to help states and districts
- Funds the Intensive Intervention Pilot Project
  - To help states and districts develop and implement evidence-based practices that are proven to improve student outcomes
  - To help states and districts build the capacity of their teachers and leaders
- Has the long-term goal of helping states and districts whose skills have been weakened by the pandemic



The Intensive Intervention Pilot Project is designed to help states and districts implement recommendations for designing high-quality, practice-based preparation [and implementation] of evidence-based practices.

**with room for improvement**  
(which is why I am here 😊)

# Increasing the level of implementation

Create these new programs strategically

## Select content

- Focus
- Duration
- Coherence

# How do you select the right content?

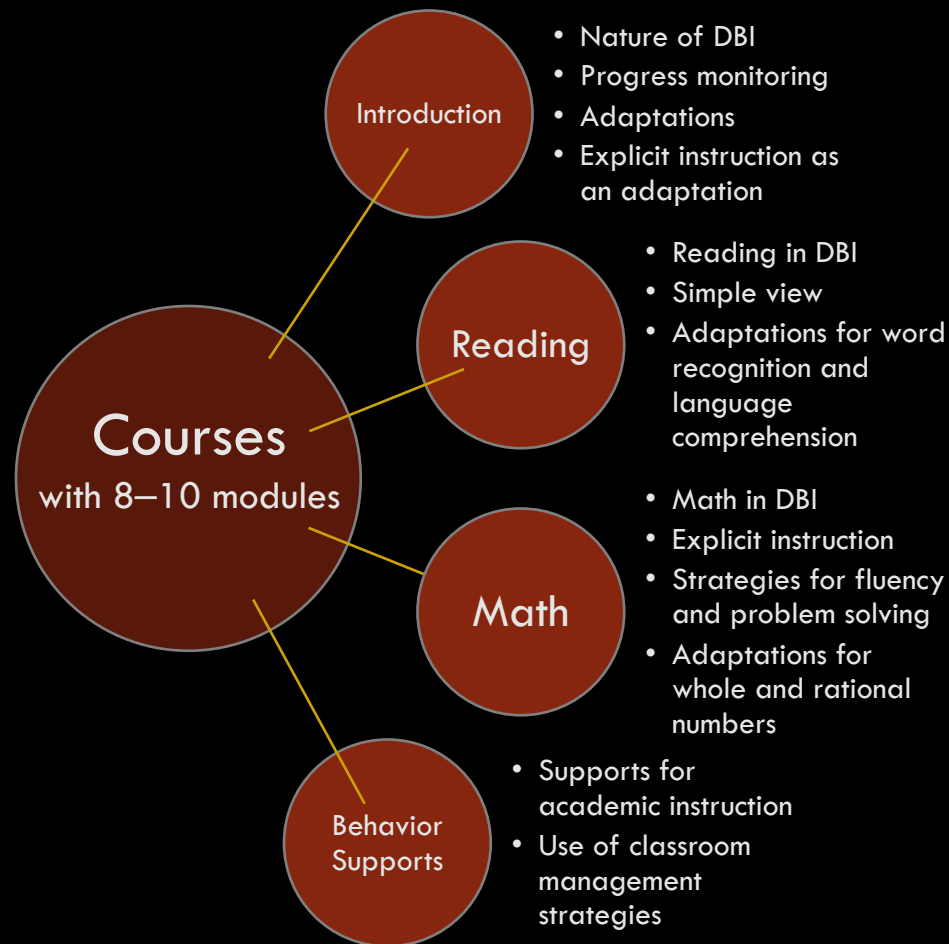
Institutions of higher education and school districts may need help...

Many are not prepared to teach about intensive intervention/DBI

How do you provide high-quality instruction on intensive intervention?

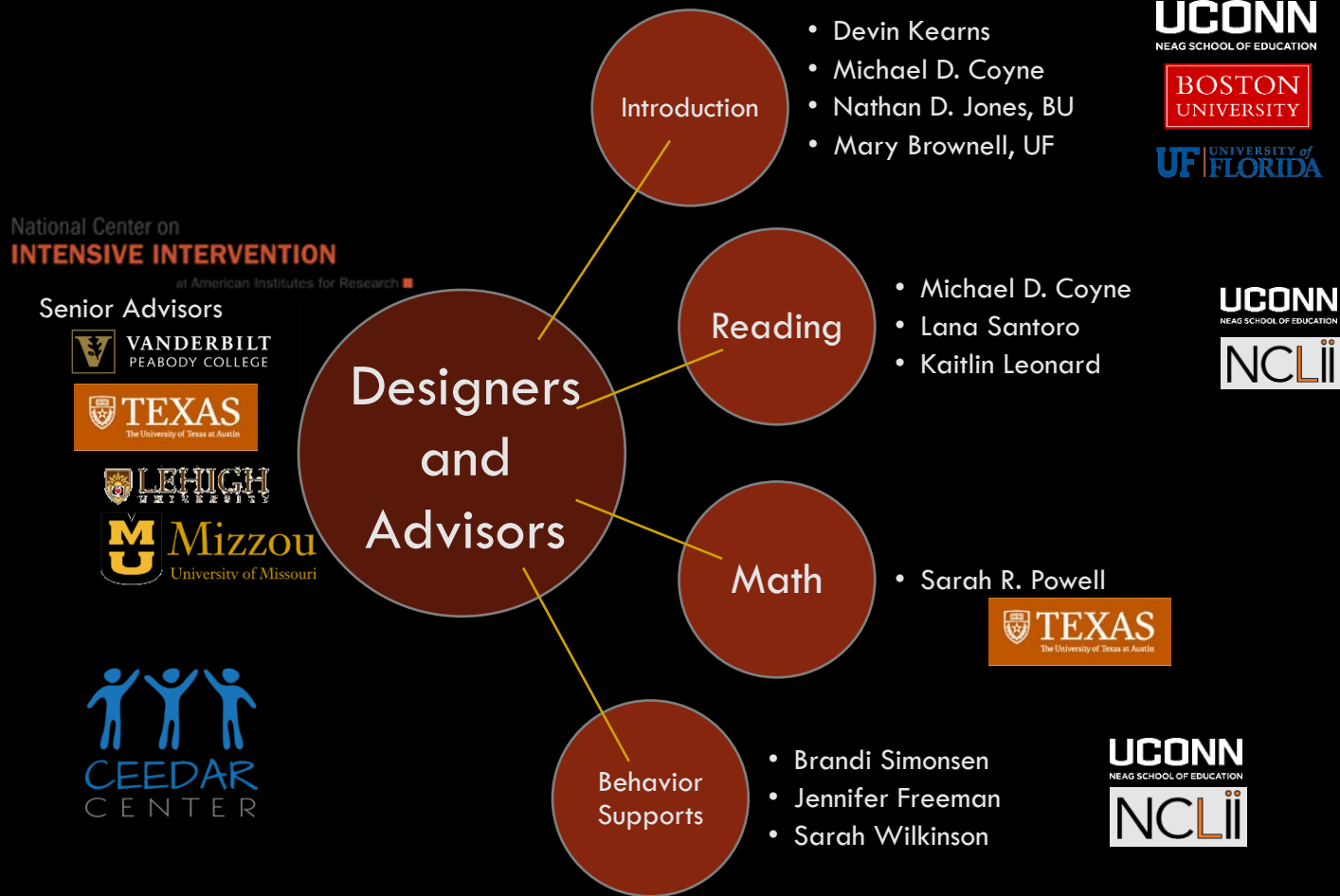
Provide the course content

# Content: Focus



# Content:

## Expertise → Coherence

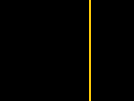


# Increasing the level of implementation

Design the curriculum to ...

Include many features of deliberate practice

- Modeling
- Spaced learning
- Varied learning
- Coaching and feedback
- Analyzing and reflecting
- Scaffolded practice



**Explicit Instructional Delivery:**  
**“We Do/You Do”**


Module 6 – Introduction

National Center on  
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I Do		
Modeling	Practice	
Clear Explanation	Guided Practice	We Do
Planned Examples	Independent Practice	You Do


**Supporting Practices**

- Asking the right questions
- Eliciting frequent responses




**MODELING**

- Candidates are provided examples of what expert performance looks like in practice.




**SPACED LEARNING**

- Candidates are offered sustained and repeated opportunities to practice knowledge and over a period of time to retention.




**VARIED LEARNING**

- Candidates are provided with opportunities to practice the knowledge and skills across varying contexts, with a distance.




**COACHING & FEEDBACK**

- Candidates are provided explicit coaching and constructive feedback throughout practice opportunities.



**ANALYZING & REFLECTING**

- Candidates are provided opportunities to engage in analysis and reflection of practice to deepen their knowledge and expertise.



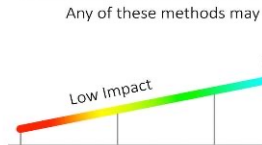
**SCAFFOLDING**

- Candidates are provided opportunities to practice the knowledge and skills with experiences that gradually increase in complexity over time with fading support from teacher educators/visitors.

A Continuum of Options for Developing Practice  
Any of these methods may improve practice

Low Effort

Assign direct application



High Effort

Teaching

Clinical year & coaching

## Which features are included?

## With what impact?

# Classroom Videos

## MODELING

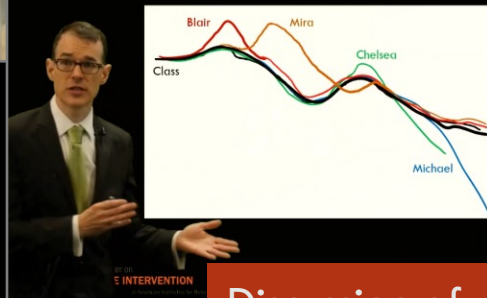


Activity 7.1  
Example 1

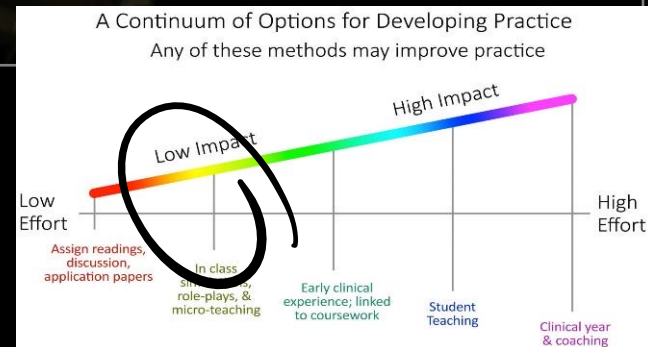
## Video models of practice



Activity 7.1  
Example 2



## Discussion of models





# Curriculum Examples



ANALYZING & REFLECTING



MODELING



Teresa and Xavier say we could count all of the squares. So, we'd add them to get the sum. What would we get?

Choral Response

Right. The sum. Let's think how we could use the rows. In this array, how many rows are there? Show me on your fingers.

Physical

Right, 4. And, how many squares are in the first row? Show me your fingers. OK, 3 in the first row.

Physical

How about the second, Jocelyn? And the third, Roman? Teresa, the last? All the rows have how many, everyone? 3!

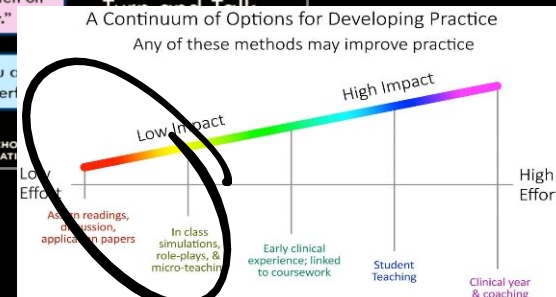
Choral Response

Whisper to your partner to finish this sentence. [written on board] ... "There are 3 squares \_\_\_\_\_ row."

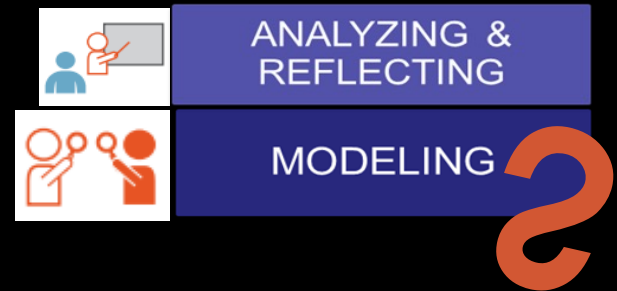
Turn and Tell

**Anonymized curriculum examples**

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# Activities Within Modules



Workbook



Video



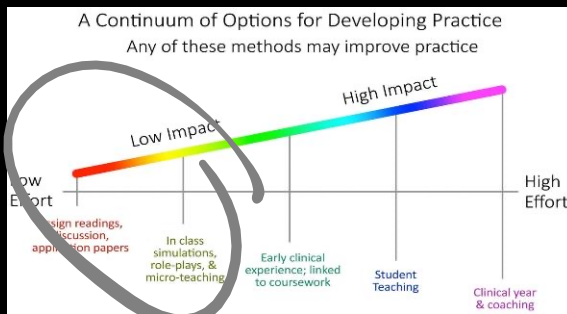
Quiz



Discussion  
board



Journal  
entry

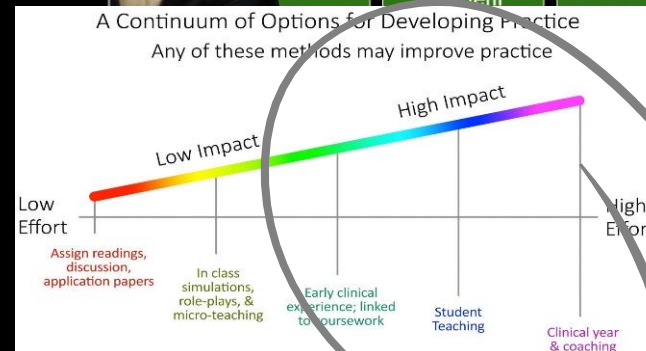
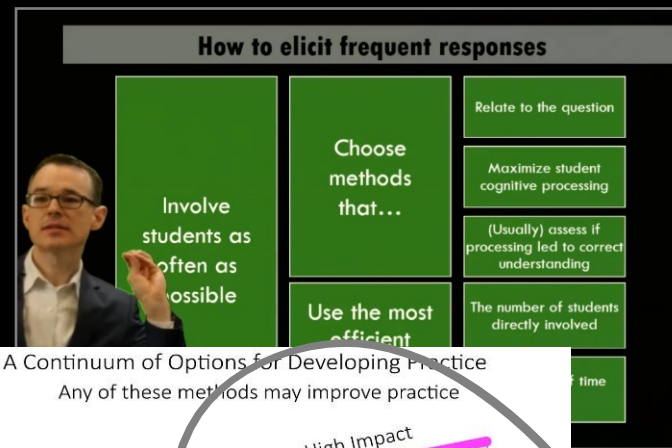


# Coaching

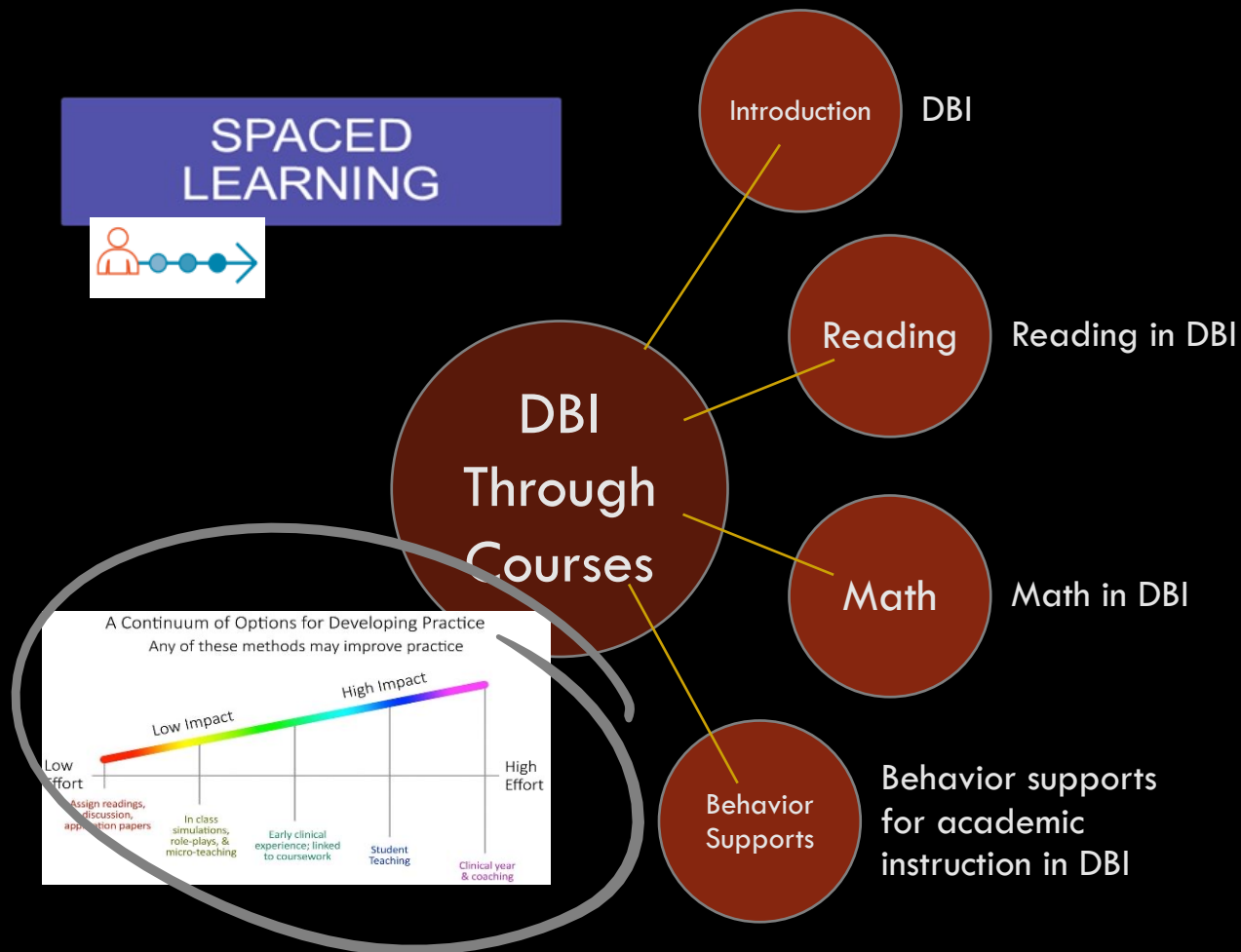
## COACHING & FEEDBACK



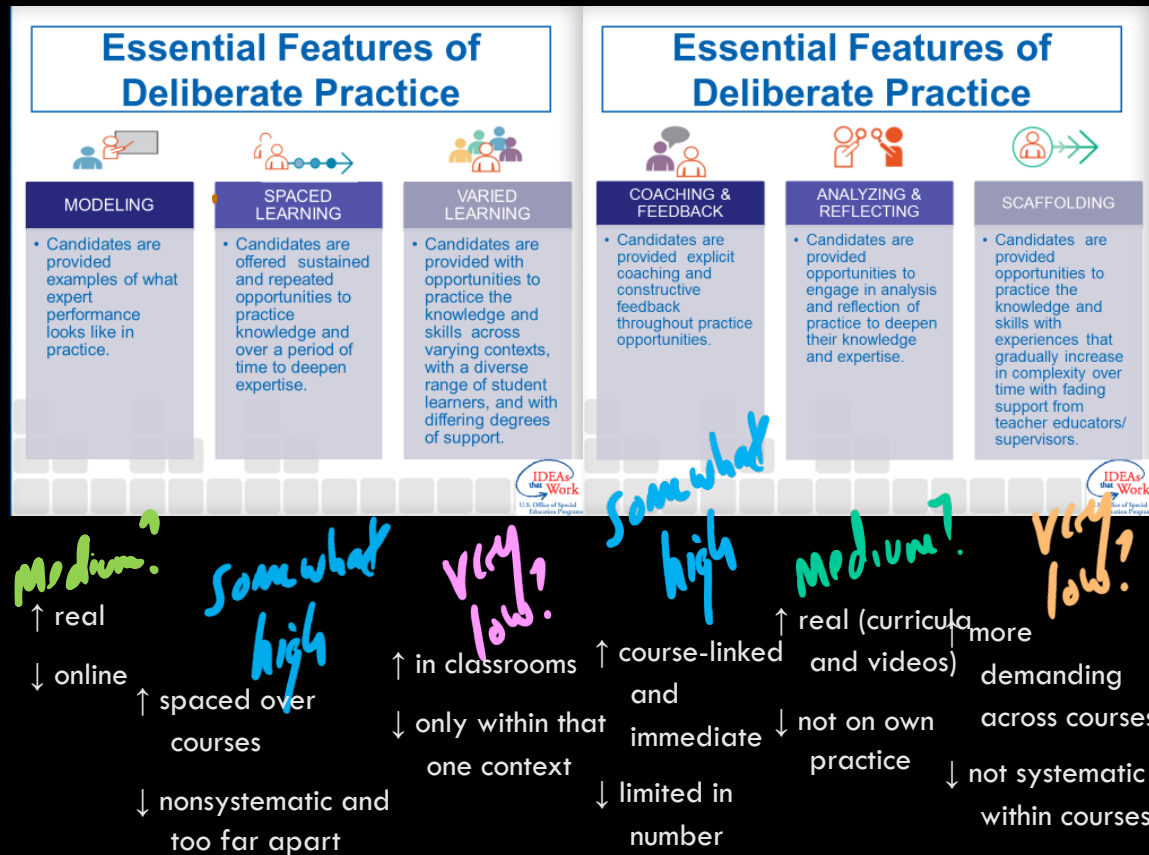
- Linked directly to content of modules
- Relies on checklists introduced in each module
- Designed to assure we are not assessing all skills at the same time after teaching them separately



# Iterative Design



# Strikes and Gutters: Features × Impact



# What can we do better?

Provide **more** (and in-depth) **varied experiences**

- Use case-based instruction (**build out video examples**) ✓

Have teachers **reflect without direct coach support**

- Reflect with peers in-person or on discussion boards ✓

but share videos...?

- Use **checklists** during conversations to make them nonevaluative ✓

- **Analyze student progress monitoring** data ✓

- Reflect in **online journal entries** ✓

**Scaffold** learning more **systematically**

- Include **microteaching** even within online classes ✓

- Provide **other practice experiences** outside of real classroom instruction (TeachLive-like) ?

Advice:  
How?

Recommendation:  
Use DBI as  
part of  
deliberate  
practice

Advice:  
What?

# Summary

- The Intensive Intervention Professional Development Pilot Project is designed to create practice-based learning opportunities
- It generally follows this idea and includes some deliberate practice
- There are several specific, actionable ways we can improve the courses in the short term
- There are larger questions to consider, and we appreciate your thoughts on these!

After today, please contact me with ideas and questions:

Devin Kearns

[devin.kearns@uconn.edu](mailto:devin.kearns@uconn.edu)

# Closing Thoughts

✧ What other questions do you have?





# Disclaimer

- ✧ This presentation was produced under U.S. Department of Education, Office of Special Education Programs, Award No. H325A120003. Bonnie Jones and David Guardino serve as the project officers. The views expressed herein do not necessarily represent the positions or policies of the U.S. Department of Education. No official endorsement by the U.S. Department of Education of any product, commodity, service, or enterprise mentioned in this presentation is intended or should be inferred.