Teachers can’t have significant impact given the decline of the family and persistent levels of poverty.
WHAT DO WE ACTUALLY KNOW?

Teaching can have powerful positive impact.

Teaching can do great harm.
TEACHING EFFECTS

COMPOUND EFFECTS
- Teacher sequence can affect student achievement by up to 50 percentile points after only three years.
- Low achieving students have the most to gain from an effective teacher.
- The top quintile of teachers facilitate appropriate to excellent gains for students of all achievement levels.

Sanders & Rivers (1996)

VARIATION IN TEACHER QUALITY
- The most important in-school factor affecting student learning is the teacher.
- There is wide variation in effectiveness among teachers.

Wright, Horn, & Sanders (1997)

LONG-TERM IMPACT
- Children who do not read proficiently by the end of third grade are four times more likely to drop out.
- Workers with a bachelor’s degree or more earned almost twice as much as workers with only a high school diploma.

Fiester (2013)

DISCIPLINE
- Latinx, Black, and Native/Indigenous students are punished more often and more harshly than other groups.
- Black girls are disproportionately subjected to exclusionary discipline practices.
- Students with disabilities are punished more often and more harshly than other groups.
- Discipline disparities for Black students, boys, and students with disabilities are observed as early as pre-K.

Gregory, Skiba, & Noguera (2010)
Skiba, Horner, Chung, Rausch, May, & Tobin (2011)
Blake, Butler, Lewis, & Darenbourg (2011)
Morris (2016)
Noltemeyer & Mcloughlin (2010)
VIDEO: IS THERE A TEACHER WHO HAD A SIGNIFICANT IMPACT ON YOU?
Teaching can’t really be taught.

It is crucial that teachers be people who were successful academically.

Teaching can really only be learned through firsthand experience.

Teaching is too constrained and teachers have almost no freedom to teach.

Teachers can’t have significant impact given the decline of the family and persistent levels of poverty.
Teaching is too constrained and teachers have almost no freedom to teach.
WHAT DO WE ACTUALLY KNOW?

Teaching involves a great deal of discretion

What part of the rectangle below is shaded gray?

What part of the rectangle below is shaded gray?
CHOOSING A TASK FOR A LEARNING GOAL

1. Understanding the mathematics
2. Understanding the mathematical point of the task
3. Understanding common patterns of student thinking about these ideas

What part of the rectangle below is shaded gray?

What part of the rectangle below is shaded gray?
VIDEO: LEADING A DISCUSSION OF STUDENT SOLUTIONS
DISCRETION IN PROFESSIONAL PRACTICE, AND ITS SIGNIFICANCE

POSSIBLE NEXT MOVES

- Clarify for Antar that he is right—that the parts are not equal—but that it is a fraction; ask someone else to give “the correct answer”

- Ask the class to indicate agreement/disagreement

RESULTS

- Antar’s answer is signaled to be incorrect and he is positioned as not having contributed to the work

- Antar’s solution is “voted” on by his classmates
AN ALTERNATIVE
Ask students to say what Antar said or to ask a question before agreeing/disagreeing.

RESULT
Maintain Antar’s agency and position him and his thinking to advance the key mathematical idea.
What does the video show about the work of teaching, both visible and invisible?
TEACHING: INVISIBLE AND VISIBLE

INVISIBLE WORK

- Selecting specific students to present and to position as competent
- Working to disrupt patterns that can marginalize students
- Trusting the children to think, be engaged, try to learn
- Showing interest in children’s ideas
- Making choices about how to interpret students’ behavior and answers

VISIBLE WORK

- Supporting students to present
- Honoring different students’ ideas
- Focusing on concepts and reasoning
- Expecting students to listen to one another
- Highlighting particular children displaying specific forms of competence
TEACHING: INVISIBLE AND VISIBLE

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VISIBLE WORK

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Eliciting and interpreting individual students’ thinking

Implementing norms and routines for classroom discourse and work

Leading a group discussion

Explaining and modeling content

Building respectful relationships with students

July 1, 2018
TEACHING: INVISIBLE AND VISIBLE

INVISIBLE WORK

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- Implementing norms and routines for classroom discourse and work
- Leading a group discussion
- Explaining and modeling content
- Building respectful relationships with students

These are high-leverage practices.
Teaching can’t really be taught.

It is crucial that teachers be people who were successful academically.
WHAT DO WE ACTUALLY KNOW?

Teaching skillfully is not natural because it requires:

1. Special ways of knowing content
2. Teaching practices that are not what we do in everyday life
3. Awareness of how inequity is reproduced in schools and ability to counter those patterns
AN EXAMPLE: KNOWING MATHEMATICS YOURSELF

\[ 49 \times 25 \]
KNOWING MATHEMATICS WELL ENOUGH TO TEACH IT: ANALYZING STUDENTS’ ERRORS

What mathematical steps produced each of these answers? Why might someone do the problem in this way?

(a) 49
  x 25
  405
  108
  1485

(b) 49
  x 25
  225
  100
  325

(c) 49
  x 25
  1250
  25
  1275
EXAMPLES OF HIGH-LEVERAGE PRACTICES

- Leading a group discussion
- Explaining and modeling content, practices, and strategies
- Eliciting and interpreting individual students’ thinking
- Diagnosing particular common patterns of student thinking and development
- Implementing norms and routines for classroom discourse and work
- Learning about students’ cultural, religious, family, intellectual, and personal experiences and resources for use in instruction
- Setting up and managing small group work
- Building respectful relationships with students
- Checking student understanding during and at the conclusion of lessons
- Providing oral and written feedback to students
- Setting long- and short-term learning goals for students
- Talking about a student with parents or caregivers

1TeachingWorks and the University of Michigan School of Education
Teaching can really only be learned through firsthand experience.
WHAT DO WE ACTUALLY KNOW?

Learning a practice involves much more than sheer experience.
WHAT DO THESE PROFESSIONS HAVE IN COMMON?

1. Base novices’ training on the most crucial skills, knowledge, and requirements necessary for the practice
2. Use developmental approaches to clinical training
3. Establish individual practice-based expectations for licensure

This is not true for teaching.
EXAMPLES OF HIGH-LEVERAGE PRACTICES

- Leading a group discussion
- Explaining and modeling content, practices, and strategies
- Eliciting and interpreting individual students’ thinking
- Diagnosing particular common patterns of student thinking and development
- Implementing norms and routines for classroom discourse and work
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1TeachingWorks and the University of Michigan School of Education
EXAMPLE: ELICITING AND INTERPRETING INDIVIDUAL STUDENTS’ THINKING

- Introduce practice
- Practice in simulated setting
- Practice in field
- Assess beginning teachers’ skill, at baseline and at end of program

@practice (Meghan Shaughnessy and Tim Boerst)
LEARNING TO ELICIT AND INTERPRET STUDENT THINKING

Two friends equally share \( \frac{3}{8} \) of a ball of yarn. How much of the yarn does each friend get?

\[
\begin{align*}
2 \div \frac{3}{8} &= \frac{16 \div 3}{8} \\
\frac{16 \times 8}{3} &= \frac{128}{3} = 5 \frac{1}{3}
\end{align*}
\]
VIDEO: LEARNING TO ELICIT AND INTERPRET STUDENT THINKING
SIMULATED STUDENT INTERACTION

To practice and get close coaching and feedback on:

- eliciting student thinking
- probing student understanding
Teaching can’t really be taught.

It is crucial that teachers be people who were successful academically.

Teaching can really only be learned through firsthand experience.

Teaching is too constrained and teachers have almost no freedom to teach.

Teachers can’t have significant impact given the decline of the family and persistent levels of poverty.
Teaching must be taught.

It is crucial that teachers be people who know content flexibly and know how to teach it.

Practice-based teacher education can prepare beginning teachers for the work of teaching.

Teaching is full of discretion. Good teaching mobilizes that discretion with care.

Teachers matter. A LOT.
WE CAN’T LEAVE GOOD TEACHING TO CHANCE.
Teaching is powerful.
Teaching can change lives.
Teaching can change the world.
Teaching can.
THANK YOU!

dball@umich.edu

Slides will be available on my website
https://deborahloewenberghall.com/
(“Google” Deborah Ball)
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