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2. Internationaler Kongress Lernen in der Praxis
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Professionalisierungsprozesse im Kontext von schulpraktischen Studien in der Lehrerbildung

LEARNING TO *DO* THE WORK OF TEACHING: "PRACTICE-BASED" TEACHER EDUCATION*

*My slides will be posted on my website.
Website: deborahloewenbergball.com

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TEACHING PRODUCES THE HUMAN RESOURCES FOR A NATION

- Large scale (for example,780,000 teachers in Germany; 3.75 million teachers in U.S.)
- Teaching is the only occupation that works with every person in the country
- School represents for many students the opportunity to get ahead
- Experience does not consistently lead to better teaching
- Students learn less on average from beginning teaching

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A SHORT VOCABULARY NOTE

- **Students** = children and young people in schools
- **Beginning teachers** or **novices** = people who are learning to teach
- **Teacher education** = all the coursework and clinical experience for learning to teach before becoming a teacher
- **Instruction** = teaching and learning in classrooms (Didaktik?)
- **Teaching practice** = 1. the work of teaching, inside and outside of classrooms 2. the work that teacher educators do, to *teach teaching*

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WHAT SHOULD TEACHER EDUCATION DO?

- Prepare teachers with the theory and knowledge of the profession
- Prepare teachers to be lifelong learners
- Prepare teachers for the responsibilities they will have from the first day, such as:
  - Explain specific ideas and practices in ways that students can understand
  - Establish a positive learning environment in the classroom
  - Design lessons and assess students' progress
  - Work with families whose culture and language are different from their own

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WHAT VIEW OF TEACHING PRACTICE UNDERLIES EACH OF THESE PERSPECTIVES?

- Teaching is learned mostly from experience
- Teaching must be learned over time
- Teaching is individual and contextual
- Teaching is complex work
- Students deserve to learn even when they have a beginning teacher

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How do *other* professions and occupations think about initial formation of novices?

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WHAT IS THE SAME ABOUT THESE OCCUPATIONS, BUT LESS TRUE OF TEACHING?

They are concerned with the safety of their "clients."

1. They identify the core knowledge and skills needed to do the work.
2. They provide carefully structured "clinical" practice, including controlled and safe experiences, e.g., simulations.
3. Each candidate has to demonstrate the skill to earn a license for independent practice.

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THE PURPOSE OF HAVING SOME SHARED EXPERIENCES WITH TEACHING TODAY

1. To make clearer what the *work of teaching* involves
2. To appreciate the tasks that beginning teachers must be able to manage
3. To re-examine common beliefs about learning to teach, and teacher education

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THREE EXPERIENCES WITH TEACHING PRACTICE

1. Eliciting and interpreting a student's thinking during a class discussion
2. Explaining ideas and choosing examples
3. Trusting students to learn and holding high expectations of them in real time

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1. ELICITING AND INTERPRETING A STUDENT'S THINKING DURING A CLASS DISCUSSION

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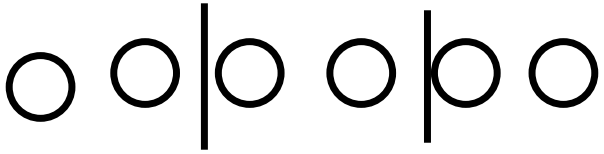
BEFORE THE VIDEO CLIP

- A boy has proposed that 6 “can be both even and odd” and demonstrates this:



- The children are agitated and one asks him to “prove it”
- A girl tries to show him that “it is not the number of *groups* it is” and shows that if this was right, then would he call 10 “even and odd” too?

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NEXT

- A girl named Ogechi wants to speak
- Follow her and try to figure out what she is saying

What is the work of teaching here?

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VIDEO: WHAT IS THE WORK OF TEACHING?

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ELICITING AND INTERPRETING A STUDENT'S THINKING DURING A CLASS DISCUSSION

What is the work of teaching here?

- Encouraging Ogechi to talk
- Listening in the moment, asking probing questions, interpreting her thinking, and supporting her and her classmates to consider her idea

Teacher: You don't need to show something? What are you trying to say?

Ogechi: I just wanted to say if you wanted an odd number, you just have to take one-one off of it.

Teacher: Why would that work?

Ogechi: Because usually odd numbers are like this — (*diagram*)

. . . .

Teacher: So you're saying the even numbers are the ones where you can group them all by twos, and the odd ones are the ones where you end up with one left over?

. . .

Teacher: Can we listen to her one more time? Say again one more time what you're saying the definition is of an odd number.

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ELICITING AND INTERPRETING A STUDENT'S THINKING DURING A CLASS DISCUSSION

What is the work of teaching here *before* this moment?

- Teaching students to share their own mathematical ideas with others in class
- Teaching students to listen to one another and to see others' ideas as part of the material for class
- Thinking about definitions of even and odd numbers and what is involved in understanding the concepts

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2. EXPLAINING IDEAS AND CHOOSING EXAMPLES

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EXPLAINING AN IDEA TO STUDENTS

What is a “rectangle”?

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SOME POSSIBLE EXPLANATIONS

① A rectangle is a figure with four straight sides, two long and two shorter.

② A rectangle is a shape with exactly four connected straight line segments.

③ A rectangle is flat, and has four straight line segments, four square corners, and it is closed all the way around.

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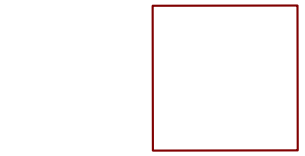
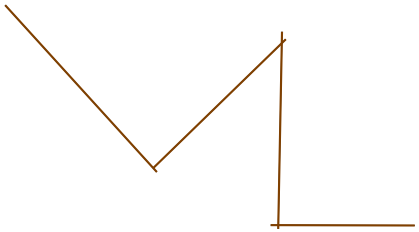
EXPLAINING IN TEACHING REQUIRES KNOWING THE CONTENT AND COMMUNICATING IT

① A rectangle is a figure with four straight sides, two long and two shorter?

② A rectangle is a shape with exactly four connected straight line segments?

③ A rectangle is flat, and has four straight line segments, four square corners, and it is closed all the way around.





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CHOOSING EXAMPLES

Which set of decimals would be best for assessing students' ability to arrange numbers in order from least to greatest?

- 0,5 7 0,01 11,4
- 0,60 2,53 3,12 0,45
- 0,6 4,25 0,565 2,5
- The lists are all equally good for assessing students' ability to arrange numbers in order from least to greatest

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Explaining ideas and choosing examples require more than knowing the content oneself.

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3. TRUSTING STUDENTS TO LEARN AND HOLDING HIGH EXPECTATIONS OF THEM IN REAL TIME

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MEET VIRSHAWN

10 years old, Black male

In fourth grade:

- He was often sent out of the room, to the hall or the principal's office
- He was in trouble often
- He wasn't doing well in math
- He was articulate and liked to write

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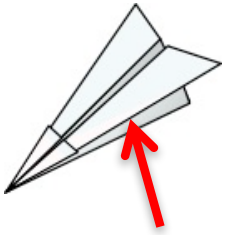
PERCEIVING A STUDENT IN CLASS

Virshawn between
11:19 – 11:25



Paper airplane

What do you think about Virshawn?

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At 11:26, the teacher says, “You know what, Virshawn, I am going to need you to come up here closer where you can see and hear and won’t be distracted.”

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Over the next minute, Virshawn is raising his hand to answer questions.

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At 11:27, the teacher says,

"Virshawn, you get to come up and make a number because you are the closest person to the board."

"You can have two checkers and you can put them wherever you want, and make a number, and then you can call on somebody ."

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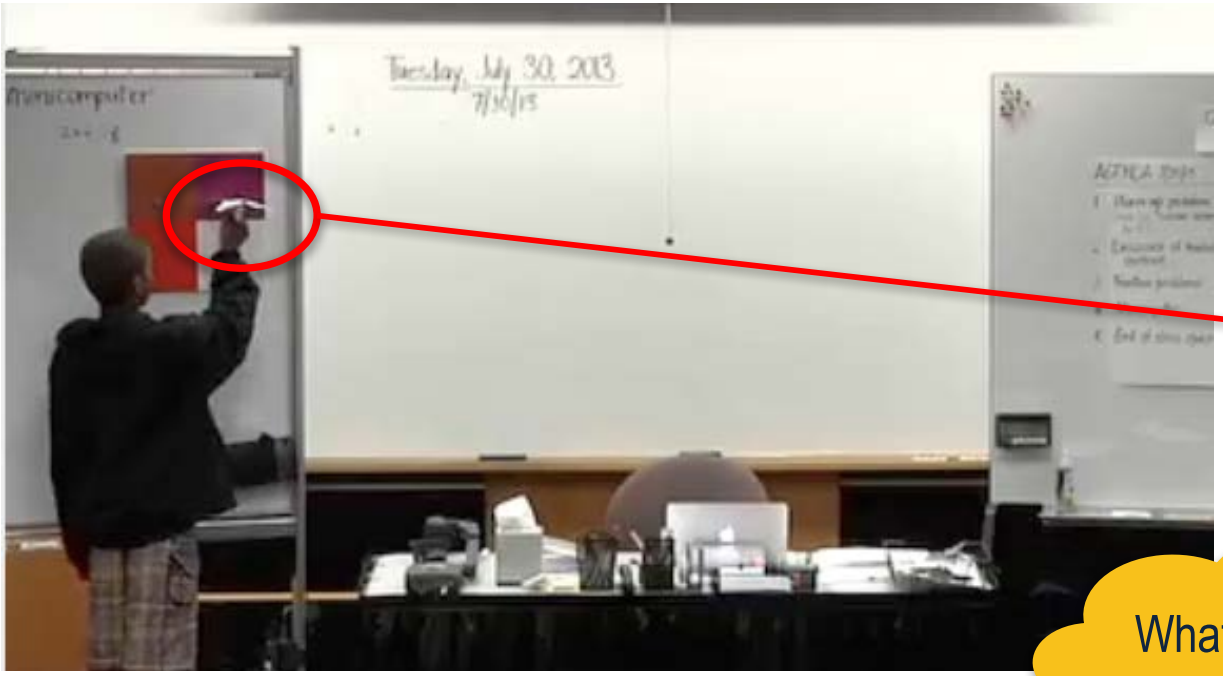
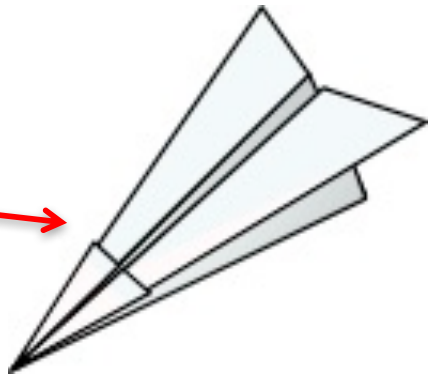
AT 11:28, VIRSHAWN TAKES THE ROLE OF "TEACHER"





What is Virshawn doing now?

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WHAT IS THE WORK OF TEACHING?

- Having an open mind in the moment about what counts as "engagement" or being "off-task"
- Deciding how to "read" him, and actions following those decisions
- Being able to ask an appropriate mathematical question to invite Virshawn *into* the work
  - "Virshawn, you get to come up and make a number because you are the closest person to the board."
  - "You can have two checkers and you can put them wherever you want, and make a number, and then you can call on somebody."

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WHAT IS THE PROBLEM FOR TEACHER EDUCATION?

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COMMON BELIEFS ABOUT TEACHING

- Teaching is not difficult.
- Teaching is best learned through experience.
- Teaching depends on creativity and improvisation.
- Teaching is a natural talent—some people are just born teachers.

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THE REALITY ABOUT TEACHING

- Teaching is complex work that requires a special blend of knowledge and skill.
- Teaching involves substantial skill, reasoning, and technique.
- It is a chancy strategy for a nation to supply quality teaching to all students by relying on individual creativity, experience on the job, or innate talent.

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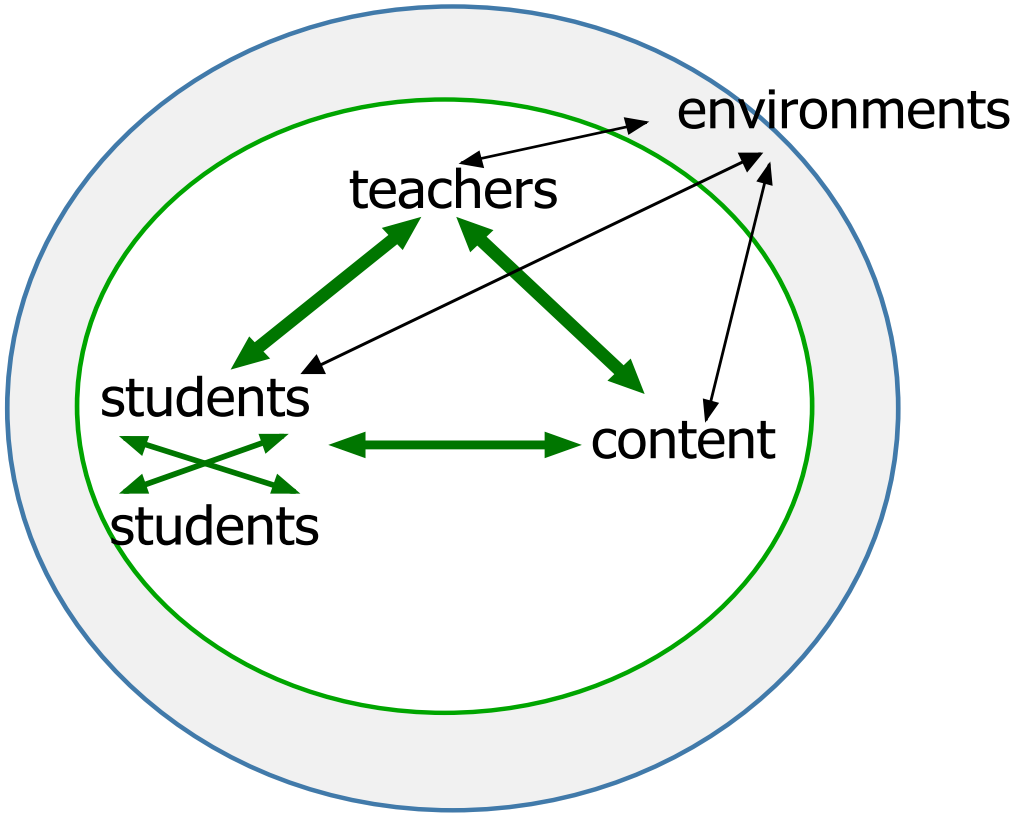
WHAT IS INSTRUCTION?



Instruction is co-constructed

- . . . in broad socio-political, historical, economic, cultural, community, family environments
- . . . through the interpretations and interactions of teachers, students, and "content"

Cohen, Raudenbush, and Ball (2003)

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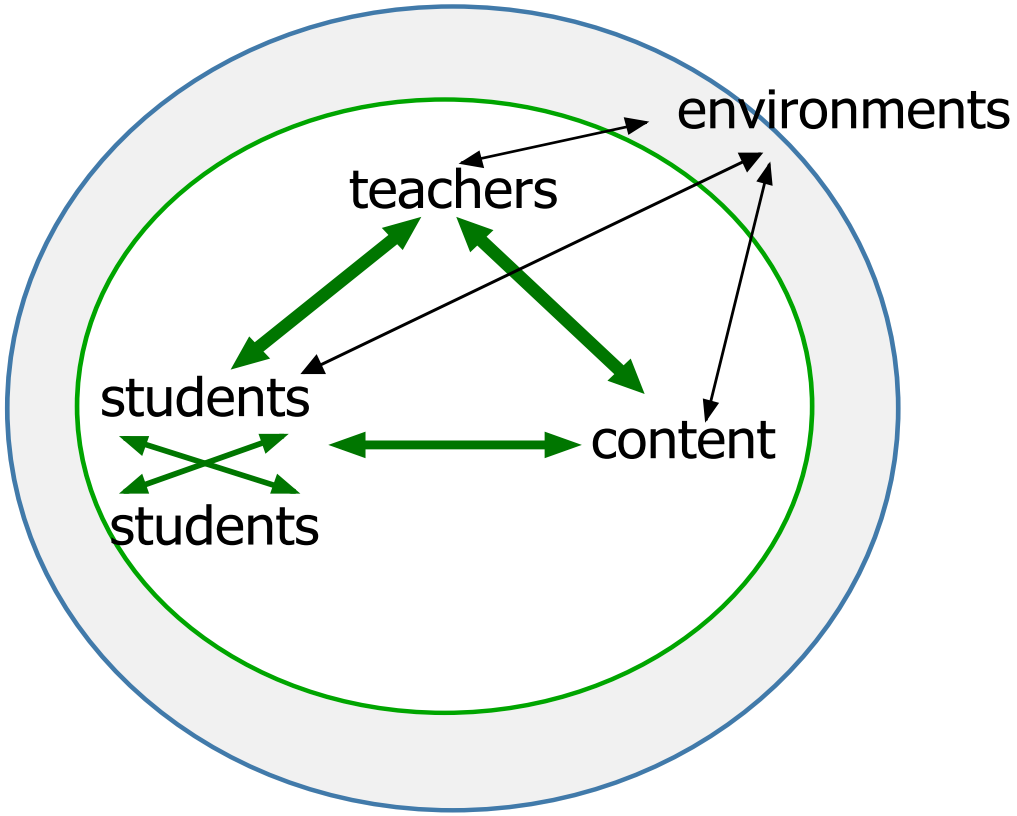
WHAT IS THE WORK OF TEACHING?



Taking responsibility for deliberately maximizing the quality of these interactions . . .

- . . . in ways that maximize the probability that students learn
- . . . worthwhile content and skills
- . . . and that advance a just society

Cohen, Raudenbush, and Ball (2003)

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NO *PROFESSIONAL* SYSTEM FOR TEACHER PREPARATION

1. No common language for the *work of teaching*
2. No shared curriculum for the formation of teachers
3. No common prerequisite standard of *performance* for being permitted to begin teaching on one's own

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NO EQUIVALENT IN TEACHING

- Objectives for coursework and for internship teaching and other clinical experiences lack similarly precise professionally determined and agreed-upon learning objectives
- Field experience often focused more on reflection than on development of actual skill and judgment
- Performance expectations for graduates of teacher education underspecified and weakly assessed

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TOWARD PRACTICE-BASED TEACHER EDUCATION

1. **Clear specification of knowledge, skills, capabilities, and qualities of performance** necessary for independent practice
2. **Detailed developmental clinical training**, progressing from observing to simulations to apprenticeship to supervised independent practice
3. **Performance assessment of individual competence** before allowing independent practice

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WHAT IS MEANT BY "PRACTICE-BASED" TEACHER EDUCATION?

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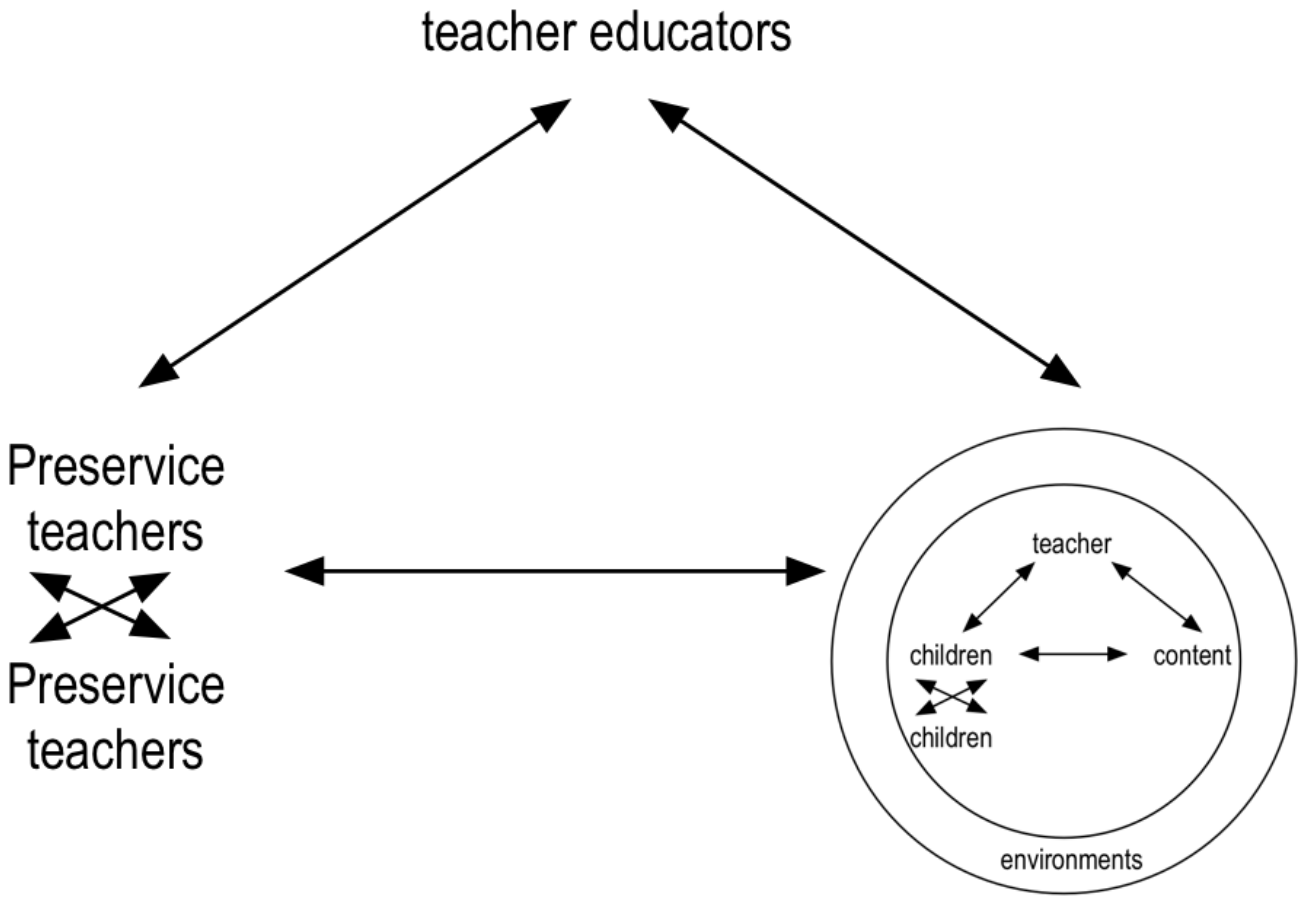
FOCUSING THE TEACHER EDUCATION CURRICULUM TO PREPARE NOVICES FOR THE WORK OF TEACHING



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HIGH-LEVERAGE PRACTICES

Things teachers DO—

- All the time!
- That leverage students' learning
- That put young people at risk when done badly
- That create equitable access to learning rigorous content and skills

- That can be named at a "grain-size" that is useful for learning to do the work of teaching
- That can be illustrated, unpacked, and practiced
- That support the development of more advanced teaching skills
- That can be assessed

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EXAMPLES OF HIGH-LEVERAGE PRACTICES[1]

- Explaining and modeling content, practices, and strategies
- Leading a group discussion
- Eliciting and interpreting students' thinking
- Establishing norms and routines for classroom discourse and work
- Diagnosing particular common patterns of student thinking and development
- 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 on their work
- Setting long- and short-term learning goals for students
- Talking about a student with parents or caregivers

[1] *TeachingWorks and the University of Michigan School of Education*

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PURPOSE OF THE HIGH-LEVERAGE PRACTICES

The high-leverage practices:

1. Break down the work of teaching into **learnable parts** that support learning to do that work, and teaching it to novices
2. Intertwine central aspects of teaching practice:
   - Knowing subject matter
   - Eliciting, interpreting, and responding to students' thinking
   - Supporting diversity and addressing inequities in class
   - Managing groups of students

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MEDICAL SCHOOL EXAMPLE PRACTICING DEFIBRILLATION

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TEACHER EDUCATION EXAMPLE
PRACTICING A GUIDED READING LESSON

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ASSESSING PRACTICE

- Need to assess actual skills of teaching, not just written reports and reflections
- Create common assessments to assess candidates' progress equitably on key knowledge, skills, and dispositions

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CHALLENGES TO DEVELOPING PRACTICE-BASED TEACHER EDUCATION

- Lack of common language and resistance to specification of teaching ("too technical")
- "Academic freedom" and complexity of higher education (professors and supervisors are independent)
- Connections to schools and developing partnerships for field placements

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THANK YOU!

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Slides will be posted on my website

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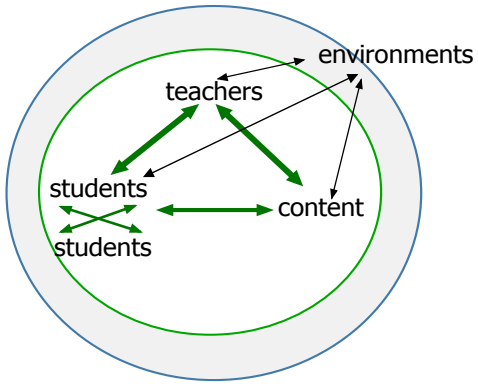

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