Rebuilding Teacher Education to Center on High-Leverage Practices at the University of Michigan

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Presentation to the UTRU College and Career Ready Standards Integration Symposium

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Redesigning teacher education at the University of Michigan 2005 - 2010

Our context: Resources and challenges

- History of commitment to TE, including willing and highly respected dean and other faculty leaders
- But no consensus around core practices, no performance assessments focused on those practices, and too few opportunities for students to practice
Redesigning teacher education at the University of Michigan 2005 - 2010

We sought to develop a program focused on practice:

1. **Curriculum**: Focused on specific skills and practices of teaching, and on the knowledge and orientations that support them

2. **Instructional activities and settings**: Repeated opportunities to practice specific teaching skills, with close, detailed coaching, in settings that support professional learning

3. **Assessment**: Periodic and culminating performance assessments that provide information about novices’ developing competence
Beginning to work on a curriculum focused on teaching

Curriculum Group launched in 2006:

- What teaching practices are most important for beginners?

- Key problems:
  - Articulating our vision of good teaching
  - Identifying criteria for choosing elements of practice most important for beginners
  - Articulating those elements at an effective grain-size
  - Rebuilding the program to focus directly on core practices
Overview for today

1. Defining and identifying high-leverage practices
   - Being clear about kind of teaching we are aiming for
   - Identifying and using other considerations for identifying a short list of practices

2. Structuring the elementary teacher preparation program at the University of Michigan around high-leverage practices
   - Sequence of performance assessments
   - Challenges of doing program redesign around high-leverage practices

3. Questions and discussion
1. Defining and identifying high-leverage practices
Viewing a segment from a classroom

- Grade 3 class
- multi-lingual and multi-cultural
- mid-January
- middle of a unit on even and odd numbers and their arithmetic properties

Shea:
“I was just thinking about 6 . . . it can be an odd number, too.”
What to watch for

1. What might the students be learning and is the teacher doing anything to support that?
2. Is the teacher teaching?

What is your evidence?
Viewing focus and discussion

1. What might the students be learning and is the teacher doing anything to support that?
2. Is the teacher teaching?

What is your evidence?
Foundations of the HLPs
5 core ideas about teaching and learning

1. The goal of teaching and learning is academic and personal agency and social and emotional development— in other words, deep learning of worthwhile content.

2. All students can learn and deserve the opportunity to learn worthwhile content.

3. Learning is an active sense-making process.

4. Teaching is a contingent practice, dependent on students and their ideas and inclinations.

5. The contexts of classroom teaching matter, and teachers must manage and use them well.
What is “teaching?"

Takes responsibility for:
1. deliberately maximizing the quality of the interactions . . .
2. . . . in ways that maximize the probability that students learn
3. . . . worthwhile content and skills
How do these ideas shape the specification of HLPs?

1. The goal of teaching and learning is academic and personal agency and social and emotional development. 
   - group discussions, small group work, norms and routines for classroom discourse and work

2. All students can learn and deserve the opportunity to learn worthwhile content. 
   - modeling and explaining content, eliciting and interpreting thinking, building respectful relationships with students, selecting and modifying tasks and texts, providing oral and written feedback, learning about students and their resources, designing lessons

3. Learning is an active sense-making process. 
   - discussion, small group work, designing tasks and texts

4. Teaching is a contingent practice, dependent on students and their ideas and inclinations. 
   - eliciting student thinking, diagnosing common patterns of student thinking, checking student understanding during lessons, group discussions, small group work, implementing norms and routines for classroom discourse and work

5. The contexts of classroom teaching matter, and teachers must manage and use them well. 
   - implementing organizational routines, talking with parents and caregivers, learning about students, designing lessons, interpreting the results of student work
Our approach to identifying high-leverage practices

- Enlisted the experience and imagination of a broad range of practitioners and researchers to create a comprehensive “map” of the work of teaching.
- Specified and used considerations for identifying those aspects of the work that are the most “high-leverage” for beginners.
- Deliberately chose tasks and activities at grain-sizes useful for a curriculum of learning to teach.
Examples of considerations

- **Considerations central to the practice of teaching:**
  - Directly linked to student learning
  - Effective in using and responding to differences among pupils
  - Useful broadly across contexts and content

- **Considerations central to teacher education:**
  - Can be assessed
  - Can be taught to beginners
What do we mean by “can be taught to beginners”?

- Tasks or activities that prospective or new teachers can try out right away, perhaps by practicing on each other
- Not principles or goals, but PRACTICES
- Consider the difference:

  The teacher understands and uses a variety of instructional strategies… (InTASC standard #8)

  vs.

  Leading a group discussion (HLP #1)

  or

  Setting up and managing small-group work (HLP #9)
Practices versus learning activities and learning goals for pupils

Identifying similarities and differences
Summarizing
Notetaking
(all from Robert Marzano framework)
or
The teacher develops and implements projects that guide learners in analyzing the complexities of an issue or question using perspectives from varied disciplines and cross-disciplinary skills. (InTASC standard 5a)
Practices versus learning activities and learning goals for pupils

Identifying similarities and differences
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HLPs: a summary

- Used with high frequency from a teacher’s first day on the job
- Useful across subject areas, grade levels, and teaching contexts (though the details may vary)
- Vital to teaching across difference and to combatting inequities resulting from historical bias and discrimination
- Foundational to ongoing professional development and advancement of professional practice
2. Structuring the elementary teacher education program at the University of Michigan around HLPs
Our goal: Well-started beginners

- Teachers who demonstrate beginning proficiency with the high-leverage practices
- “Subject-matter serious” elementary teachers who are able to represent the content with integrity
- Ethical teachers who recognize and can act on their professional obligations
- …. all with room (and tools!) for further growth and development
Pillars of the U-M elementary teacher education program

Practice-based teacher education

- high-leverage teaching practices
- content knowledge for teaching
- ethical obligations
Content knowledge for teaching

- **Accuracy**- Clearly and accurately communicates and represents the subject’s ideas, practices, and principles.
- **Disciplinary practices**- Conveys understanding of the ways in which complex disciplinary practices work.
- **Integrity of subject matter**- Supports learning experiences that make the subject matter accessible and preserve its disciplinary integrity.
- **Patterns of student thinking**- Accounts for patterns of student thinking about the content.
- **Follow through on objective**- Steers ongoing learning toward subject matter learning goals.
- **Other notable content knowledge issues**- Teaches in ways that are likely to provide a firm disciplinary foundation for subsequent learning.
Ethical obligations for teaching

- Care & commitment to every student
- Professionally competent teaching practice
- Equitable access to learning
- Appreciation of difference and diversity
- Belief in the capacity for learning
- Personal responsibility for overcoming obstacles to student success
- Carefully exercise the power and authority of the teaching role
- Respect and generosity towards others
- Integrity of academic subjects in teaching
### SEMESTER 1

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<th>Week 1</th>
<th>October</th>
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<td>CaSM#1 (science &amp; language arts)</td>
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<td>TwCM: Teaching with Curriculum Materials (science, math, social studies)</td>
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- clinical practicum
- professional workshops & seminar

### SEMESTER 2

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- professional workshops & seminar: primary curricular focus on exceptionalities (?)

### SEMESTER 3

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<td>ED421: science methods</td>
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<td>ED392#3: working with families</td>
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<td>M2T#3: beginning the school year (Mitchell)</td>
<td>ED411: math methods</td>
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- professional workshops & seminar

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<td>Y2PA (timing TBD)</td>
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- professional workshops & seminar
Children as sensemakers #1
Social foundations
Managing to teach #1
Early literacy

Educational psychology
Teaching with curriculum materials
Teaching with technology
Practicum, seminar, & workshops
- Managing to Teach #2
- Culturally relevant pedagogy
- Facilitating classroom discussions
- Children as sensemakers #2

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- Science methods
- Managing to teach #3 (Beginning the school year)
- Working with families
- Mathematics methods
- Practicum, seminar, & workshops
- Student teaching
- Seminar & workshops
- Year 2 performance assessments (integrated)
Parts of leading a problem-based mathematics discussion

- Setting up the mathematics problem
- Monitoring as students work independently on the problem
- Launching the discussion
- Orchestrating the discussion
- Concluding the discussion
Learning to lead mathematics discussions

- Initial experience: Participating in a mathematics discussion as learners of mathematics
- Identifying, observing, and practicing (with peers) the parts of leading a discussion
- Analyzing and debriefing the mathematics discussion
- Enacting a mathematics discussion (four opportunities)
- Co-planning for a mathematics discussion
Challenges of designing teacher training around HLPs

- Developing consensus around core practices; building corresponding curriculum materials and assessments
- Effectively integrating work on practices with work on the knowledge and orientations needed to carry out the practices; ensuring that one doesn’t overwhelm the other
- Ensuring that everyone who works with residents/interns, including classroom teachers who serve as mentors, can effectively coach the practices
- Crediting (or compensating, etc.) instructors for non-traditionally sequenced and timed teaching responsibilities
- Developing policies for handling student failure at HLP assessments
Some approaches to managing these challenges

- Working deliberately and collaboratively, and systematically compensating people for their work on program design and redesign
- Always keeping practices at the center of the bull’s-eye; asking, “What do teachers need to know and be able to do in order to carry out X practice?
  - If a potential piece of curriculum content isn’t necessary to carrying out an HLP, it might not belong in the curriculum given the short duration of initial teacher training.
- Enlisting the support of policy people and other “higher ups” from the very beginning
- Over-communicating with residents/interns about program expectations and requirements for graduating
Questions?

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Great teachers aren’t born. THEY’RE TAUGHT.