

Design Problems in Practice-Focused Teacher Education

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The problem

- Calls for teacher education to be more focused on practice and an increasingly common refrain
- Some work underway to identify focal practices for teacher education, in general and in specific subject-areas, and to design TE around them
- But to date, we have not created a common language for talking about the core elements of the work of teaching or focused TE on that work in detail
- Little knowledge exists about what the challenges of this kind of design work would be



Our goal for today:

To identify what is involved in trying to design a teacher education curriculum centered on the practice of teaching



Overview

1. A short exercise: What is challenging about trying to identify focal practices for teacher education?
2. Five problems inherent in making practice the centerpiece of teacher education
3. An example: Identifying “high-leverage” practices at the University of Michigan
4. Additional problems



Consider some of the foci of pilot training:

- Conducting a preflight inspection
- Glassy-water approach and landing
- Normal and cross-wind approach and landing
- Straight turns and climbing turns
- Effective visual scanning
- Runway incursion avoidance
- Crossed control stalls
- S-turns across a road

. . . or of medical training

e.g., Conduct a chest examination:

- Observe respiratory efforts and note presence/absence of respiratory distress
- Confirm midline tracheal position with gentle palpation anteriorly
- Percuss the chest on left and right
- Ascultate the chest using using the diaphragm of the stethoscope on both right and left sides

. . . or of training for the clergy

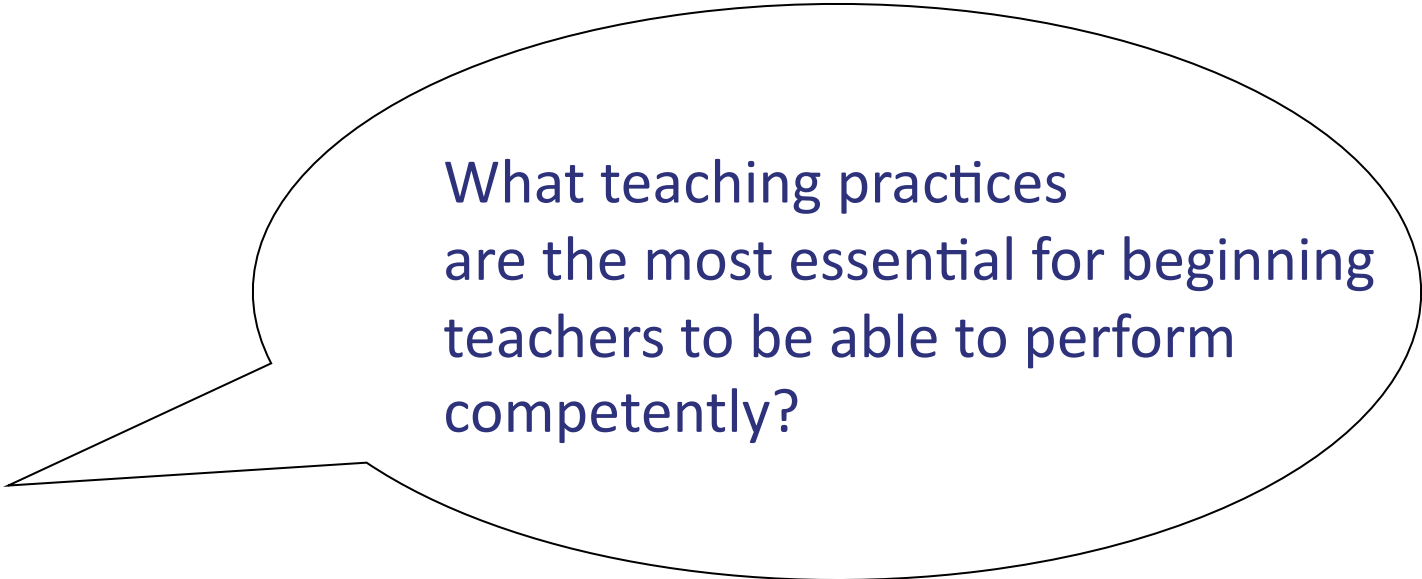
- Presiding at life-cycle events (bat and bar mitzvah, funerals, christenings)
- Counseling parishioners
- Homiletics (developing and delivering a sermon)
- Reading for preaching



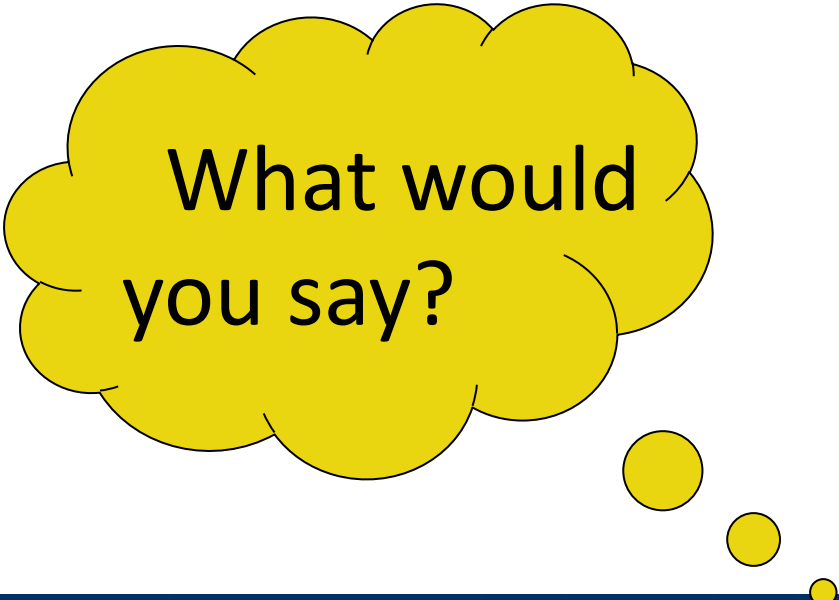
No equivalent in teaching

- Objectives for coursework and for student teaching and other clinical experiences lack similarly precise professionally-determined and agreed-upon learning objectives
- Performance expectations for graduates of teacher education underspecified and weakly assessed (e.g., reflects on lesson, manages the classroom effectively, delivers clear instruction)





What teaching practices
are the most essential for beginning
teachers to be able to perform
competently?



What would
you say?

The challenge

Professionals working toward practice-focused teacher education would need to manage at least five inherent problems:

1. Specify and develop consensus around the core tasks and activities of teaching
2. Choose the elements of practice most necessary for entrants to the profession
3. Articulate those elements at an effective grain-size
4. Manage the general and subject-specific aspects of teaching practice
5. Manage the context-specific nature of practice

1. Specifying and developing consensus around core tasks and activities of teaching

- Absence of robust professional knowledge base
- Link between particular teaching practices and student achievement not always clear
- Weak common language for describing and studying teaching

2. Choosing elements most important for competent beginning practice

- Given vast scope of teaching practice and brevity of professional training, what is most important?
- Are some aspects of practice fundamental to more advanced elements?
- Are there elements of practice that are best or only learned through formal training (rather than experience)?
- What makes a “safe” beginner?

3. Articulating core practices at an effective grain-size

- How to decompose the intricate practice of teaching into parts that are small enough to be learnable but are still meaningful?
- Does it matter if core practices are of different “grain-sizes”?
- What to do about practices that cut across multiple elements of instructional work?

4. Managing the general and the subject-specific aspects of teaching

- How does the work of teaching differ from one subject to the next?
- Are there practices that all elementary teachers, all secondary teachers, or all K-12 teachers need to be able to do, independent of their field?
- What are the subject-specific practices that are most important for beginners?
- How can we manage with the lack of a common K-12 curriculum in the U.S.?

5. Managing the context-specific nature of instructional practice

- How does context interact with a given teaching practice?
- How can we account for that interaction in teacher education, particularly given the diversity of instructional contexts in the United States?



An example: Identifying high-leverage practices at the University of Michigan

At UM, we have tried to manage the first three of these problems by:

- Enlisting the experience and imagination of a broad range of practitioners and researchers to create a comprehensive “map” of the work of teaching
- Specifying and using criteria for identifying those aspects of the work that are the most “high-leverage” for beginners
- Deliberately choosing tasks and activities at grain sizes useful for a curriculum of learning to teach

“High-leverage” practices

- Have significant power in teaching because they:
 - Are central to the daily work of teaching
 - Make much more likely that teaching will be effective for students’ learning
- Essential; if teachers cannot discharge them well, they will face significant problems
- Fundamental to the development of more complex practice



Considerations for identifying “high-leverage” practices

- Drew on research on teaching
- Drew on recent design work in teacher education, most of it in specific school subject-areas (Ball, Sleep, Boerst, & Bass, 2009; Franke & Chan, 2009; Hatch & Grossman, 2009)
- Created and vetted our own list



Examples of considerations

Considerations central to the practice of teaching:

- High probability of making a difference in teaching quality and effectiveness
- Effective in using and managing differences among pupils
- Useful broadly across contexts and content

Considerations central to teacher education:

- Can be assessed
- Can be taught to beginners

Identifying high-leverage practices

- Used considerations to identify list of 88 potential HLPs
- Bundled or further decomposed items to achieve a shorter list that highlights a range of crucial features of the work of teaching

Examples of high-leverage practices

- Explaining ideas and processes
- Choosing and using representations, examples, and models of core content
- Setting up and managing small-group work
- Recognizing and identifying common patterns of student thinking in a content domain
- Selecting and using specific methods to assess students' learning on an on-going basis
- Conducting a meeting with a parent or caregiver



Next steps

- Choose content for learning the HLPs, given that the U.S. has no common curriculum
- Incorporate attention to cross-cutting issues such as equity, language, and learning
- Determine the specific kinds of instructional activities and clinical settings will help novices learn the HLPs?
- Designing assessments of novices' ability to perform the HLPs
- Validating the HLPs (and assessments) against students' learning gains

Thank you!

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