Building High-Leverage Practices (HLPs) into Teacher Education and Building the ETS® NOTE Assessments to Measure HLPs

Eric Steinhauer
Executive Director, ETS® National Observational Teaching Exam (NOTE)
ETS

Nicole Garcia
Mathematics Research and Design Specialist
TeachingWorks
1. What is the \textit{ETS}® \textit{NOTE}? A high level picture

2. A grounding in High-Leverage Practices (HLPs)

3. HLPs in Teacher Preparation at the University of Michigan

4. What is NOTE? A closer look
What is ETS® NOTE National Observational Teaching Exam?
What is the ETS® NOTE?

An innovative series of assessments designed to evaluate prospective teachers’ ability to translate their knowledge of content and teaching into effective practice

– grounded in research on K–12 teaching combined with advances in assessment technology
– created in collaboration with Educational Testing Service and TeachingWorks at the University of Michigan

Assessments will include

**performance assessments:** tests of high-leverage teaching practices using “on the spot” video-recorded candidate performances and

**content knowledge for teaching (CKT) assessments:** tests of the special ways teachers need to know content in the core subject areas
The focus of the ETS® NOTE

High-Leverage Practices
• practices that are useful across a broad range of subject areas, grade levels and teaching contexts
• managing differences among pupils, that will increase effectiveness of teaching

High-Leverage Content
• Content topics where the difference between effective teaching and ineffective teaching is believed to most likely affect student learning
• Ideas and skills that are foundational to content, that are fundamental to student learning and are sources of student difficulties when not well taught

Content Knowledge for Teaching (CKT)
• The content knowledge teachers use in recognizing, understanding and responding to the content intensive practices that they engage in as they teach a subject
• CKT includes
  – The content students are expected to learn
  – The specialized types of content knowledge that only teachers need to know and use
### PERFORMANCE ASSESSMENTS

- **Modeling and Explaining Content**
- **Interactive Performance Assessments**
  - Designed to assess high-leverage practices of teaching (HLPs)
- **Leading Classroom Discussion**
- **Eliciting Student Thinking**
- **Communicating with a Parent or Guardian**

#### CONTENT KNOWLEDGE FOR TEACHING ASSESSMENTS

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<tr>
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Pass assessment by meeting four subtest cutscores.

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Interactive performance tests

Use of virtual avatar classrooms allows for assessment of interactive practices

- without inclusion of teacher candidate assessment tasks in classroom time
- providing candidates a level playing field

The behavior, participation patterns, language, etc. of avatars are produced by trained, calibrated human “interactors” using standardized protocols.
Simulated Classroom and Parent Avatar Capability
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What is TeachingWorks?

A national organization housed at the University of Michigan School of Education

Focused on ensuring that every child gets skillful teaching every year by building strong professional infrastructure for the training, development and assessment of teaching practice

... based on work done at the University of Michigan in our own programs and also in partnership with other programs and organizations

http://www.teachingworks.org
Starting in 2005, the University of Michigan sought to develop a program focused on practice:

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

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

**Assessment:** Periodic and culminating performance assessments that provide information about novices’ developing competence
Process for 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
Considerations for identification of HLPs

Considerations from the practice of teaching:
- High probability of making a difference in teaching quality and effectiveness
- Effective in using and responding to differences among pupils
- Useful broadly across contexts and content

Considerations for teacher education:
- Can be taught to beginners
- Can be assessed
Process:

Identifying practices that can be taught to beginners

Tasks or activities that prospective or new teachers can try out right away, including by practicing on each other

Not principles or goals, but practices, e.g.,

2. Leading a whole-class discussion
5. Recognizing particular common patterns of student thinking and development in a subject-matter domain
11. Appraising, choosing, and modifying tasks and texts for a specific learning goal

Compare to: InTASC standard #8: The teacher understands and uses a variety of instructional strategies
A starting question:
What is teaching?
What is teaching?

Where we began:
A conception of teaching as ... 

a stream of interactions among and between teacher, students and the content to be learned

work of the teacher is to facilitate these interactions in ways that maximize the chances that students will learn

The students do the work of learning, but the teacher plays a central role in orchestrating the interactions that lead to learning
What are high-leverage practices of teaching?

How does this view of teaching shape the specification of practices?

• Teachers must know their students and their thinking (eliciting and interpreting student thinking, diagnosing common patterns of student thinking, using formative assessment, leading class discussions)

• Student thinking is a central resource for instruction (eliciting and interpreting student thinking, leading group discussions)

• Teachers must manage the influence of the broader environment on classroom instruction, and use resources in that environment in instruction (Engaging in relationship-building conversations with students, establishing norms and routines, communicating with families, working with curriculum materials)
Crucial: The imperative to teach all students

Teachers are obligated to work assiduously to help all students reach ambitious academic goals, and to seek to intervene on persistent educational inequities through their instruction:

• Designing and choosing texts and tasks that will meet the needs of particular students
• Making content explicit in ways that will work for particular students
• Establishing sensitive, respectful relationships with students and their families
• Managing participation, choosing examples, and other finer-grain sized moves inside of larger practices
High-leverage practices (HLPs)

1. Making content and practices (e.g., specific texts, problems, ideas, theories, processes) explicit through explanation, modeling, representations, and examples
2. Leading a group discussion
3. Eliciting and interpreting individual students’ thinking
4. Establishing norms and routines for classroom discourse and work that are central to the subject-matter domain
5. Recognizing particular common patterns of student thinking and development in a subject-matter domain
6. Identifying and implementing an instructional response or strategy in response to common patterns of student thinking
7. Teaching a lesson or segment of instruction
8. Implementing organizational routines, procedures, and strategies to support a learning environment
9. Setting up and managing small-group work
10. Engaging in strategic relationship-building conversations with students
11. Setting long- and short-term learning goals for students that are referenced to external benchmarks
12. Appraising, choosing, and modifying tasks and texts for a specific learning goal
13. Designing a sequence of lessons toward a specific learning goal
14. Selecting and using particular methods to check understanding and monitor student learning during and across lessons
15. Composing, selecting, and interpreting and using information from quizzes, tests, and other methods of summative assessment
16. Providing oral and written feedback to students on their work
17. Communicating about a student with a parent or guardian
18. Analyzing instruction for the purpose of improving it
19. Communicating with other professionals
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The goal of the program: 
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 University of Michigan 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 and 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

<table>
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<tr>
<th>Week 1</th>
<th>September</th>
<th>October</th>
<th>November</th>
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<tbody>
<tr>
<td>CaSM#1 (science &amp; language arts)</td>
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### SEMESTER 2

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<td>M2T#2 (science &amp; language arts) (Mitchell)</td>
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<td>ED431: social studies methods</td>
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<td>ED392#2: culturally relevant pedagogy</td>
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<td>FCD (literacy &amp; social studies) (Scarlett)</td>
<td>ED403: literacy #2</td>
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- **clinical practicum**
- **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 and 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 and workshops
• Student teaching
• Seminar and workshops
• Year 2 performance
• Assessments (integrated)
A high-leverage teaching practice:

Leading a whole-class discussion

• In a whole-class discussion, the teacher and all of the students work on specific content together, using one another’s ideas as resources. The purposes of a discussion are to build collective knowledge and capability in relation to specific instructional goals and to allow students to practice listening, speaking and interpreting. In instructionally productive discussions, the teacher and a wide range of students contribute orally, listen actively, and respond to and learn from others’ contributions. (TeachingWorks)
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

Making explicit discussion-leading practices
(e.g., setting up a mathematics task)

Co-planning for a mathematics discussion

Enacting a mathematics discussion (four opportunities)

Analyzing and debriefing the mathematics discussion
Questions?
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Where are we in development?

Tryouts and pilots being done with EPPs, teacher candidates and beginning teachers.
PERFORMANCE ASSESSMENTS

Modeling and Explaining Content

Interactive Performance Assessments

- Delivered using simulated classroom with student and guardian avatars

CKT assessment content is being developed by ETS and TeachingWorks with review from external content experts.

- Pilots fall 2015 and spring 2016

Eliciting Student Thinking

Communicating with a Parent or Guardian

Delivered in test centers

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Pass assessment by meeting four subtest cutscores

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PERFORMANCE ASSESSMENTS

Prototyping of interactive performance tasks
- Iterative tryouts in Fall 2015–Spring 2016.
- Pilot slated for June 2016

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Delivered in test centers

Leading Classroom Discussion

Eliciting Student Thinking

Communicating with a Parent or Guardian

and guardian avatars

Interactive Performance Assessments

Delivered using simulated classroom with student and guardian avatars

Modeling and Explaining Content

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CONTENT KNOWLEDGE FOR TEACHING ASSESSMENTS

PASS ASSESSMENT BY MEETING FOUR SUBTEST CUTSCORES

DELIVERED IN TEST CENTERS

DELIVERED USING SIMULATED CLASSROOM WITH STUDENT AND GUARDIAN AVATARS

PERFORMANCE ASSESSMENTS

MODELING AND EXPLAINING CONTENT

TRYOUTS WITH STUDENTS IN PREPARATION PROGRAMS AND BEGINNING TEACHERS OF “WHITEBOARD PERFORMANCE” TASKS ASSESSING MODELING AND EXPLAINING CONTENT.

- ONGOING TRYOUTS WITH
- PILOTS FALL 2015 AND SPRING 2016

ELICITING STUDENT THINKING

COMMUNICATING WITH A PARENT OR GUARDIAN

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Task: Modeling and explaining content

• Explaining and demonstrating important processes, strategies or techniques to students.
• The goal is to provide students with access to the essential features and thinking to enable them to use these processes, strategies or techniques independently.

<table>
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<tr>
<td><strong>Practice:</strong> Making content and practices explicit through explanation, modeling, representations and examples</td>
<td>• A video-recorded performance using a whiteboard for instruction</td>
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<tr>
<td><strong>Content:</strong> Math and ELA topics taught in elementary grades</td>
<td>• Each performance calls for candidate to demonstrate modeling or explanation of content</td>
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<td>• Candidate is teaching only to the camera but with a student audience in mind</td>
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<td>• Multiple 7-minute performances</td>
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</table>
Task: Modeling and explaining content

Grade level: Third grade
Content area: Mathematics
Task: Model the traditional subtraction algorithm and use base ten blocks to show how to subtract 401 – 56

… explain how to solve a multidigit subtraction problem that requires regrouping across multiple place values

… model how to solve the problem using the subtraction algorithm and show how the subtraction algorithm connects to the problem using base ten blocks.

… explain the relevant mathematical thinking and decision making … as you would for a group of third graders

Materials: Whiteboard, markers, magnetic base ten block models
Performance time: 7 minutes
Questions?
Contact information

Eric Steinhauer
esteinhauer@ets.org
609-683-2954

Nicole Garcia
nmgarcia@umich.edu
734-936-8905