Taking Charge of Change • AACTE 2014 • Indianapolis, IN • March 3, 2014

(TO WHAT AND TO WHOM) SHOULD TEACHER PREPARATION HOLD OURSELVES ACCOUNTABLE?

Deborah Loewenberg Ball

(very honored to sub for Kris Gutiérrez*)

*who is not responsible for the content of this talk

SCHOOL OF EDUCATION
UNIVERSITY OF MICHIGAN

TeachingWorks

BY-NC-ND

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/

© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

AN INDUSTRY OF MEDIOCRITY?

"How America prepares its teachers has been a subject of dismay for many years. . . .There are 3.3 million public school teachers in America, and they probably can't all be trained by start-ups. Raising up the standards of our university programs should be an urgent priority. But one reason for the widespread mediocrity is that universities have had a cozy, lucrative monopoly. It's about time the leaders of our education schools *did* feel threatened."

Bill Keller, *New York Times*, October 20, 2013

http://www.nytimes.com/2013/10/21/opinion/keller-an-industry-of-mediocrity.html

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

OBJECT OF CHANGE, OR ITS LEADER?

Keller: “The heartening news is that the universities that for so long have resisted pleas to raise their standards are now beginning to have change pushed on them from the outside.”

Professionalizing teaching and teacher preparation is our responsibility, not something others can—or should—do.

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

A SPECIAL MOMENT FOR CHANGE

OPPORTUNITIES

1. "Teacher quality" of more interest than ever
2. Higher education teacher education dominates the market
3. Teacher shortages

CHALLENGES

1. Lack of belief in and concern about teacher preparation (e.g., public reaction to NCTQ report)
2. Dominance of individualism in education and ed reform

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

TO WHOM SHOULD TEACHER PREPARATION HOLD ITSELF ACCOUNTABLE?

- To the students in the classrooms of first-year teachers
- To the families of those students

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

TO WHAT SHOULD TEACHER PREPARATION HOLD ITSELF ACCOUNTABLE?

- To the quality of entry level teaching
- To the ability of their first-year graduates as first-year teachers to continue to learn in and from practice, and from the contexts in which they work

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

WHAT WOULD WE HAVE TO DO?

1. Stand up for the power of teaching, and the moral imperative.
2. Understand the context and history of the teaching profession and preparation for teaching in the U.S.
3. Articulate a specific common curriculum for initial preparation.
4. Make entry to independent practice selective and based on skill.

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

① STAND UP FOR THE POWER OF SKILLFUL TEACHING, AND FOR THE MORAL IMPERATIVE

SCHOOL OF EDUCATION
UNIVERSITY OF MICHIGAN

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

A GLIMPSE OF BEGINNING TEACHING

1. What is skillful about this teaching? What is less so?
2. What does the video reveal about the challenges of beginning teaching, with respect to:
   - knowing the content?
   - knowing students?
   - specific instructional capabilities?

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

VIDEO OF BEGINNING TEACHING

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

EXAMINING BEGINNING TEACHING

SKILLFUL

- Using an equitable problem context
- Engaging many learners
- Moving around classroom space
- Using strong voice and presence

LESS SKILLFUL

- Managing the mathematical-pedagogical issues with the context
- Focusing on the key mathematical point
- Eliciting student thinking
- Talking mathematics in teaching

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

WHAT ABOUT TEACHING THIS LESSON COULD BE TAUGHT?

- To understand the core mathematical idea of "average" and what there is to understand
- To appraise the appropriateness of the context and to replace it with a better but mathematically similar one
- How to conduct a discussion about students' data and steer to the key mathematical point(s) (Sleep, 2010)
- Ways to engage all learners in the activity

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

TEACHERS MATTER — A LOT

- Differences in teachers account for 12%-14% of total variability in students' mathematical achievement in each of grades 1, 2, and 3.
- Students assigned to three effective teachers in a row score at the 83rd percentile in math at the end of 5th grade; children assigned to three ineffective teachers in a row score only at the 29th percentile.
- The cumulative effects of skillful teaching can substantially reduce differences in student achievement that are due to outside-of-school factors.

BY-NC-ND
This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

② UNDERSTAND THE CONTEXT AND HISTORY OF THE TEACHING PROFESSION AND PREPARATION FOR TEACHING IN THE U.S.

SCHOOL OF EDUCATION
UNIVERSITY OF MICHIGAN

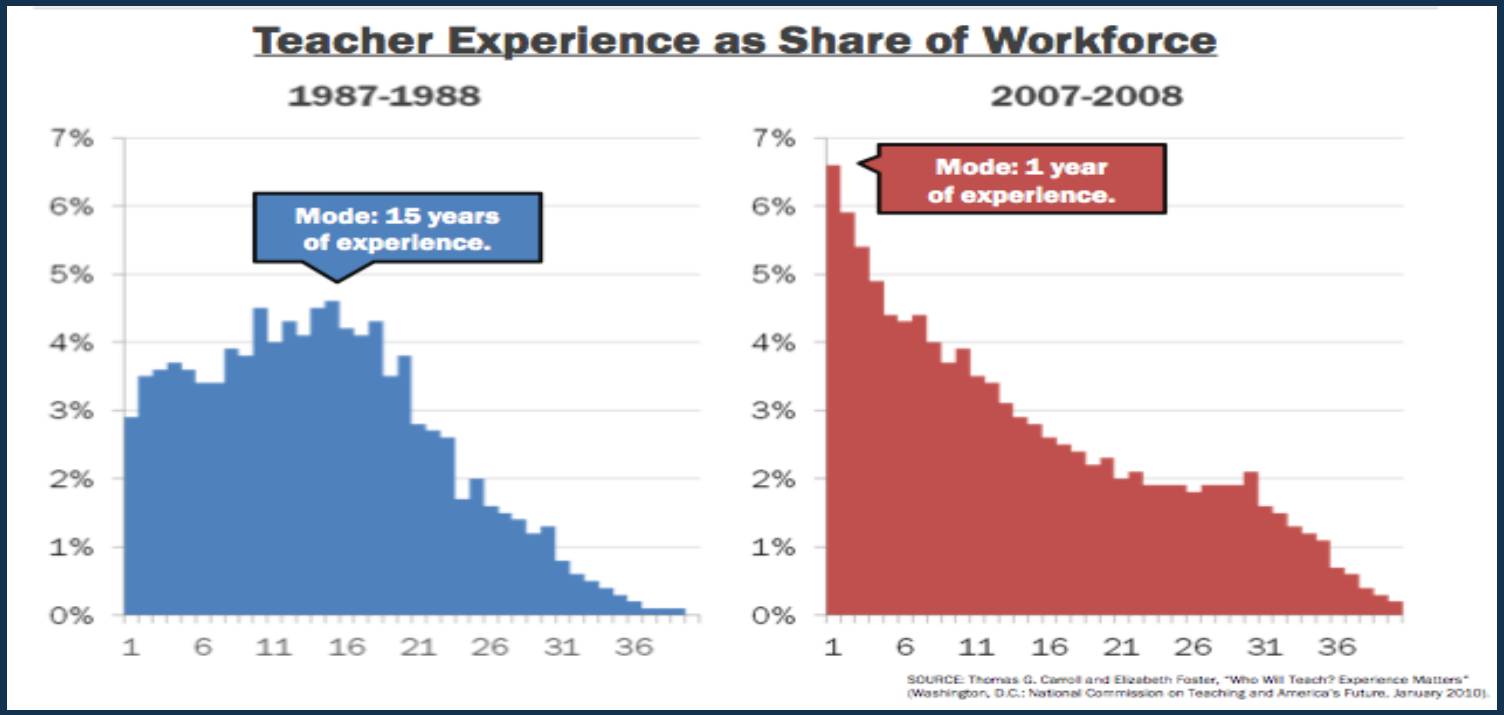
BY-NC-ND
This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

KEY FEATURES OF THE CONTEXT

1. The concentration and impact of beginning teaching
2. The sprawl and roots of the U.S. approach to teacher preparation

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

BEGINNING TEACHING ON THE RISE



This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

ENTRY-LEVEL TEACHING AS A CRITICAL FOCUS

1. More U.S. schoolchildren have a first-year teacher than a teacher with any other number of years of experience.
2. Most beginning teachers say they are underprepared for teaching.
3. Distribution of beginning teaching is concentrated disproportionately in low-income and high-minority schools.

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

NO PROFESSIONALLY GROUNDED SYSTEM FOR TEACHERS' TRAINING

- Over 3,000 independent providers of initial teacher training
- No common specific curriculum for preparation for initial teaching
- A reliance on conventional academic credentials as the standard content knowledge
- No common standard of performance for entry to independent practice with (on) young people

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

WHY IS THIS THE CASE? TWO BIG THREADS FROM OUR NATION'S HISTORY

- The development of the occupation of teaching in the U.S.: eased entry, cellular structure, and easy replacement
  - Lack of shared codified professional knowledge, lack of shared standards for teaching quality
  - Lack of investment in professional training
- The development of localism: cultural diversity, parental rights
  - Democratic political authority and governance of schooling
  - School management and unionization
  - Highly varied and inequitable opportunities and outcomes for students

A widely shared view of teaching as individual and learned on the job

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

THE CONSEQUENCES ARE SERIOUS FOR EDUCATIONAL EQUITY AND QUALITY

Could we change this? What would have to be done?

Solving this is a moral imperative.

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

WHAT IS THE PROBLEM? WHAT ARE THE SOLUTIONS? ALTERNATIVE VIEWS

PROBLEM

One view: Teacher candidates are weak and programs are too easy; university-based teacher education is inherently mediocre

A different view: The country views teaching as something one must learn from experience, and that good practice is personal

SOLUTION

Make teacher preparation tougher: encourage programs outside of universities, increase admissions selectivity, extend field experience; use teacher evaluation to weed out bad teachers

Create and agree on a common professional standard of initial performance for entry to beginning teaching

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

③ ARTICULATE A SPECIFIC COMMON PROFESSIONAL STANDARD FOR INITIAL TEACHING AND TEACHER PREPARATION, AND MAKE ENTRY TO TEACHING SELECTIVE AND BASED ON SKILL

SCHOOL OF EDUCATION
UNIVERSITY OF MICHIGAN

BY-NC-ND
This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

WHAT SHOULD INITIAL PREPARATION AND LICENSURE DO?

1. Prepare entry-level teachers who are ready to care for the **academic, social, emotional, and physical safety** of children, and to fulfill the **ethical imperatives** of teaching, and who are prepared to continue to improve.
2. Provide assurance to parents and to the public that the beginning professional has met the standards necessary to be given **initial responsibility for students' learning.**
3. Take as the central imperative the **rights of children.**

BY-NC-ND
This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

MOVING FORWARD TO A PROFESSIONAL SYSTEM OF TEACHER PREPARATION

1. *Build on basic agreements about domains of teaching and evidence about content knowledge for teaching:* Identify **key specific practices of teaching** and **high-leverage content** essential for responsible entry-level practice
2. *Build on commitment to clinical preparation:* Develop **specific approaches to training** beginners to carry out those practices, along a **continuum of contexts** for learning and practicing practice
3. *Build on commitment to performance assessment:* Develop **performance assessments of specific practices and content** and require individuals to demonstrate entry-level standard of practice before beginning

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

HIGH-LEVERAGE PRACTICES

High-leverage practices (HLPs) are specific tasks of teaching that are fundamental to skillful practice.

Based on work done at the University of Michigan School of Education in the redesign of our teacher education program, and at TeachingWorks, an organization housed at U-M whose mission it is to improve the quality of teaching and learning by transforming teachers' education.

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

EXAMPLES OF HIGH-LEVERAGE PRACTICES

- Leading a whole-class discussion
- Eliciting and interpreting individual students' thinking
- Explaining and modeling core content
- Establishing norms and routines for classroom discourse
- Recognizing particular common patterns of student thinking
- Setting up and managing small group work
- Selecting and using specific methods to check understanding and monitor student learning
- Composing, selecting, adapting quizzes, tests, and other methods of assessing student learning of a chunk of instruction
- Conducting a meeting about a student with a parent or guardian

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

CONTENT KNOWLEDGE *_FOR TEACHING_

- Knowing the content that the students are supposed to learn
- Knowing ways to unpack, represent, and make that content learnable
- Knowing how students think about the specific content
- Knowing ways to teach the specific content

(Ball, Thames, & Phelps, 2008, *JTE*)

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

ETHICAL PRACTICE AND THE COMMITMENT TO EQUITY AND DIVERSITY

- Inequity is reproduced inside of instructional practice.
- Teachers have leverage at strategic points in their work.
- This depends on joining concerns for equity with the daily and minute-to-minute work of teaching.

(Ball, Shaughnessy, Mann, & Farmer, 2014)

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

"SAFE TO PRACTICE" AS THE STANDARD FOR LICENSURE

Licensure should certify that the beginning teacher is ready for responsible entry-level practice.

By "safe" we mean teaching that does not place students at risk academically, socially, emotionally, or physically.

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

RAISE THE BAR FOR ENTRY TO INDEPENDENT ENTRY-LEVEL PRACTICE

- Agree on common high-leverage practices and content knowledge, as well as ethics, necessary for safe and skillful practice
- Determine how these can be most validly assessed to assure probability of safe practice: on-demand, other (portfolio, etc.)
- Build common supports to help candidates develop the requisite skill and capabilities
- Carry out ongoing research and development to improve validity and precision of licensure system

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

IT WON'T BE EASY

- The scale of the enterprise is vast and the U.S. has weak educational infrastructure.
- It will take a movement to build a rigorous system of professional training for the responsibility of teaching our nation's youth, in order to achieve fairness in common access to skilled teaching.
- This argument focuses on ***teaching***, not ***teachers*****.** It focuses on building capacity, not finding talent and firing.
- It is not the "American way"—it is detailed (even prescriptive), not individually discretionary, common.

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

BUT IT IS OUR MOMENT

- Teaching is more broadly understood as crucial to children's life chances.
- There's more attention to teacher preparation than ever before.
- We've done more as a community in the last couple of decades (InTASC, edTPA, AACTE, CCSSO. . .).

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

WHAT WOULD IT TAKE TO ESTABLISH A PROFESSIONAL SYSTEM FOR ENTRY TO TEACHING?

1. A common standard for the capabilities required, and common tools for determining readiness for practice
2. Resources for the teaching of teaching, including specific pedagogies, video libraries, and instructional materials and methods for teaching particular high-leverage practices and content knowledge for teaching
3. The development of teacher educators

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/
© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu

GREAT TEACHERS AREN'T BORN.

THEY'RE TAUGHT.



TeachingWorks

UNIVERSITY of MICHIGAN SCHOOL of EDUCATION

This work is licensed under the Creative Commons Attribution-Noncommercial-No Derivative Works Version 3.0 United States License: http://creativecommons.org/licenses/by-nc-nd/3.0/us/

© 2014 Mathematics Teaching and Learning to Teach • School of Education • University of Michigan • Ann Arbor, MI 48109 • mtlt@umich.edu