

# An Instructors' Learning Community on Inclusive Teaching: Improving Understanding and Implementation of Inclusive Instruction

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# Overview

- What this talk is
  - A description of our Learning Community on Inclusive Teaching,
  - how it was structured,
  - and what we accomplished.
- And what it is not
  - An authoritative exposition on how to teach inclusively.

# A Learning Community on Inclusive Teaching

- Our **LCIT** originated from a small (\$1000) grant from our Center for Research on Teaching and Learning (CRLT) to “create faculty communities looking at inclusive teaching.” This is work **Nina White**, to whom most of the credit should go.



“... inclusive classroom practices can help address [attraction and retention of minorities]... We will create a community of instructors who will discuss these issues... [to attain] the knowledge and resources to better support [these students]... Our new group—Inclusive Teaching in Mathematics—will... [meet] through the winter semester to discuss readings and research, and will bring in outside speakers, to accomplish its goals.”

- **Premise:** *Prerequisite to meaningful Departmental change are*
  - **Exploration and background**, and
  - **Building a core** of instructors with knowledge and appropriate skills.

# Departmental Context

- Our Department of Mathematics is fairly big
  - About 65 T/TT faculty, 70 postdocs, 15 lecturers, and 130 graduate students.
  - Teaching 250–370 undergraduate class sections/semester
  - With a highly structured Introductory Program (our course before calculus, calculus I, and calculus II).
- And has done some work on education and reform:
  - Calculus reform (1992–present) (*instructor training*)
  - IBL center (2004–present)
  - Seminar on Teaching Mathematics (2003–present)



# LCIT: Structure and Set-Up

- Invitation to all faculty and graduate students in mathematics, and members of the School of Education.
- Four discussion sessions, one outside speaker, one concluding discussion. *... plus a number of follow-up and subsequent sessions*
- Discussion sessions met over lunch (provided by grant funding) *... scheduling issues*
  - For each: specific readings, with discussion leaders.
  - Synopsis, questions, discussion.
  - *Partial model: IBL lunches in Department.*
- Supplemental funding from within the Department covering speaker travel

• Readings for 3 April 2018

{ In this session, we will look at inclusion and assessment. Harrison Bray and Nina White will lead a discussion following supporting readings. Please fill out [this survey](#) before 11:59pm on Thursday 3/29, to help the session.

Supporting reading:

- [Assessing Assessment](#), by Lynn Steen. This is the introduction to the MAA assessment volume linked in the survey.
- [Framing Equity](#) by Rochelle Gutierrez. This is pp.5-6 in this document, and questions for discussion are in the survey.
- Optional complimentary readings are in the [MAA Instructional Practices Guide](#). The sections on assessment and equity, pp.157-166 are particularly relevant for our discussion. We especially recommend the equity sections which will enhance the other (very short!) readings.

• Readings for 7 March, 2018

{ In this session, Nancy Kress, from the University of Colorado, Boulder, will speak on instructional strategies for equity.

# Outcomes: Community

- **Readings** included blog posts, articles, and (mostly partial) texts.
- **Attendance** was generally good.
  - Winter 2018 events averaged **16 attendees**, **37 in total**, with **15 attending at least three** sessions.
  - Attendees were **approximately evenly split** between **T/TT faculty**, **lecturers**, **post-docs**, and **graduate students** (though graduate students were the least-well represented).
  - *This looks like a community!*
- **Collegial and open discussions** were the norm.
  - ... which may reflect **Departmental culture**.
  - But: note **graduate student attendance**.

*... and self-selection*

# Outcomes: Community Work

- **Goal:** “[to attain] the knowledge and resources to better support [these students]. . . ”
  - Inclusivity in teaching *is a big issue*.
  - We definitely **increased awareness, and knowledge**, and
  - **increased individuals’ resources**.
- **Implied Goal:** facilitate change in instructors’ teaching.
  - This is *harder to measure*.



# Outcomes: Instructional Impact

- It is difficult to measure impact in the classroom. However, the community had a number of **key instructional insights**:
  - **Avoid a deficit perspective**: *Look for and emphasize students' understanding and competence, not errors.*
  - **Assign competence**: *Recognize students' success and contributions publicly.*
  - **Manage groupwork**: *Take an active role during groupwork to support inclusive group dynamics.*
  - **Create classroom community**: *Focus on increasing students' sense of belonging in class, and in mathematics.*
  - **Be self aware**: *Of implicit biases, habits and language.*





# Outcomes: New Questions

- And these raised a number of **new questions**:
  - How do (did) we create community?
  - How do we better recognize what we need to be aware of and change?
  - How do we make all of these things natural parts of our teaching?
  - How to balance uniformity and resistance to academic dishonesty with promotion of a growth mindset and sense of belonging?
  - How to show underrepresented mathematicians and implement strategies meaningfully and authentically?



# Outcomes: Artifacts and Discernable Impact

- This talk.
- (Forthcoming. . . ) post for the [AMS inclusion/exclusion blog](#) about our work.
- Work on our new instructor training program.
  - **Week-long program**, for all new graduate students and post-docs.
  - **Increased focus on inclusive teaching**, with a CRLT workshop at the start of the week and some interleaving of topics throughout.



# Conclusions and Reflections

- Our Community did arrive at some **key insights**,
- And an **underlying framework** to think about issues of inclusivity:
  - **Levels of Action**  
*Individual, Programmatic, and Departmental*
- **Programmatic actions:**
  - **Think critically about assessment structures** in large, coordinated courses.
  - **Highlight contributions of mathematicians in underrepresented groups.**
- **Departmental actions:**
  - Work with our **instructor training programs**:  
*Clearly note that our teaching is not de facto inclusive, and Provide instructors with strategies*

A Mathematics Learning Community Teaching (LCIT)  
Faculty Communities for Inclusive Teaching, 2018

Project Overview

- **Structure:** Faculty, post-docs, and grad students met 5x times in W18 to discuss readings on inclusive teaching in math, with a SP, wrap-up meeting in May
- **Goals:** (1) increase awareness of barriers to inclusive teaching and strategies for teaching more inclusively, (2) build and support a community within Department committed to inclusive teaching, and (3) support instructor training

Key Insights / New Questions

*Individual Actions*

- Teaching orientation: See the Value in Student Thinking / Avoid a Deficit Perspective (see ...)
- Teaching Strategy: Assigning Competence
- Personal reflection: Recognize our own in biases. *How do we overcome them?* ...
- Managing groups: Take active role during to monitor and support inclusive group dynamics
- Creating community: Focus on increasing sense of belonging in our classrooms and, by mathematics more generally. *How do we*

# A Continuing LCIT

- **Two meetings in Fall 2018**  
With residual funding—due to Departmental support, and cheap lunches.
- **Renewed funding for Winter 2019**
  - **Increase graduate student engagement**  
Graduate students teach many of our introductory courses, are a substantial part of our department, and may be teaching for years to come.
  - **Improve inclusivity of our Community**  
Survey attendees who came only once.
  - **Improve application of instructional strategies**  
Focus discussions, follow-up surveys.
  - **Continue engagement with Department and Introductory Program**  
Work on new instructor training, larger programmatic issue.

Questions? Comments?

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