The Rice University Master Teaching Fellowship Program Results:
Development of Teacher Leaders in High-Need Urban Schools
Adem Ekmekci & Mahtob Aqazade – Rice University; Patricia McMorris & Stacy Jaster - Houston ISD

Project
The Rice University Noyce Master Teaching Fellowship Program (RU-MTF) - DUE #1556006
Anne Papakonstantinou (PI), Adem Ekmekci, Judy Radigan, & Richard Tapia, Rice University

Goal
Guide 14 exceptional secondary mathematics teachers' development as leaders who are deeply grounded in sound mathematical content and research-based pedagogical, leadership, adult education, and mathematics advocacy skills.

Theoretical Framework
- Teacher leadership [1]
- Reform-based mathematics teaching [2]
- Mathematical knowledge for teaching [3]
- Effective professional development [4]
- Culturally-relevant instruction [5]

Focus Group
What does effective mathematics instruction look like?
Students engaged, hands-on, discovering; teachers guiding, facilitating; effective communication in variety of ways

How well do your colleagues understand this?
Tests perceived as the most important element; deficit understanding of effective math instruction; can’t make students love math

How well do administrators understand this?
Sharing and collaboration not valued; no content focus; micromanaging tendency

Ways the RU-MTF program affected your beliefs about equity/diversity in math?
Self-realization of deficit personal perspectives; evolving in to having a wider scope; more attentive to diverse students

Leadership roles you have assumed on your campus, in your community since RU-MTF?
Changed from individual to collaborative style; learned about organizing a workshop/program

Importance of community connectedness?
Parent and stakeholder involvement is vital; community engagement supports education

Data Collection
- AVID Teacher Leadership Survey [6]
- Learning Math for Teaching [LMT; 3]
- Diversity Disposition Index [7]
- Focus group and open-ended questions

Results

Teacher Leadership Skills

LMT (Functions & Algebra)

Diversity Dispositions

Timeline

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<th>Activities/Courses</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
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<td>Lesson demo for teachers</td>
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<td>Plan/co-teach w/ teachers</td>
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<td>Lead study groups/seminars</td>
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<td>Monitor/obs teachers Collaborate &amp; interact w/ school community Participate/lead math initiatives</td>
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<td>Collaborate &amp; interact with other MTFs</td>
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<td>Plan &amp; co-teach summer PD</td>
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<td>Mentor pre-service/element math teachers</td>
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<td>Assist in math methods Present at the Life in School Conference</td>
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Open-ended Questions
Complications caused by the pandemic?
Learning gaps exacerbated; community connections weakened; feedback for colleagues obstructed; social interactions worsened

Any changes/improvement for RU-MTF?
More summer whole-group meetings; More PD facilitating experience

What’s next for you?
Improve community connections; engage more in leadership; continue interacting with fellows

References