As the 2016-2017 school year begins, we invite you to join with educators from around the country and possibly the world in *A Call for a Collective Action to Develop Awareness: Equity and Social Justice in Mathematics Education.*

Attached you will find a listing of articles and books identified by several mathematics education organizations and mathematics educators. Each month's reading(s) has a set of focus questions for you to consider during that month as you reflect on the readings.

A Call for a Collective Action to Develop Awareness: Equity & Social Justice in Mathematics Education

Purpose: A year dedicated to building our collective knowledge and understanding of topics and issues related to Equity and Social Justice in Mathematics Education

1. Monthly readings

- a. Each organization will identify a key reading (book, collection of published articles, white papers) for ALL to read
- b. Group will develop a guiding set of questions to focus the year of reading
- c. Start reading September
- 2. Quarterly webinars (Dates and Times will be available by October 1)
 - a. One hour webinar November, February, May, and August
 - b. 15-20 minutes overview/key take-away(s), considerations, and/or questions of reading for each of the previous months
- 3. Face-to-Face informal conversations
 - a. As organizations hold their national conferences/meetings one morning or evening hour be set aside for those to gather and talk

Contributing Organizations & Educators

Association of Mathematics Teacher Educators (AMTE) <u>https://www.amte.net/</u> Association of State Supervisors of Mathematics (ASSM) <u>http://www.statemathleaders.org/</u> Benjamin Banneker Association, Inc (BBA) <u>http://bannekermath.org/</u> California Mathematics Council-South (CMC-South) <u>http://www.cmc-south.org</u> Journal of Urban Mathematics Education (JUME) <u>http://education.gsu.edu/JUME</u> National Council of Teachers of Mathematics (NCTM) <u>http://www.nctm.org/</u> National Council of Supervisors of Mathematics (NCSM) <u>http://www.mathedleadership.org/</u> North American Study Group on Ethnomathematics <u>(NASGEm) http://nasgem.rpi.edu</u> TODOS: Mathematics for ALL <u>http://www.todos-math.org/</u> Women and Mathematics Education (WME) <u>http://www.wme-usa.org</u> Robert Berry, University of Virginia

Focus Questions for the Year

How might we, the mathematics education community, make a difference in the teaching and learning of mathematics "that promote rich, rigorous, and relevant mathematical experiences" for all students? What key actions should we consider?

How does the reading further inform or challenge your understandings of issues related to equity and social justice in mathematics education? What question(s) do you have in regards to the reading(s)?

September

Position Papers

AMTE - Equity in Mathematics Teacher Education https://amte.net/sites/default/files/amte equityposistionstatement sept2015.pdf

NCSM & TODOS - Mathematics Education Through the Lens of Social Justice: Acknowledgment, Actions, and Accountability

http://www.todos-math.org/assets/docs2016/2016Enews/3.pospaper16_wtodos_8pp.pdf

NCTM - Access and Equity in Mathematics Education http://www.nctm.org/uploadedFiles/Standards and Positions/Position Statements/Access and Equi ty.pdf

1. What are some common understandings amongst the three position papers?

October

TODOS: Mathematics for ALL <u>http://www.todos-math.org/</u>

TEEM 7- Special Issue: Mathematics Education Through the Lens of Social Justice (available online to TODOS members; others should email **Diane Kinch** dokinch@gmail.com for a copy)

- 2. How do we change the paradigm of what mathematics is and how it should be learned from its current institutional form to one that utilizes the mathematics of people and their communities and ties mathematics to the world?
- 3. Which of the examples of social justice and mathematics tasks enacted with students that were written about in this journal most resonates with you? Why?

November

National Council of Teachers of Mathematics (NCTM) http://www.nctm.org/

The Impact of Identity in K-8 Mathematics. Available at https://www.nctm.org/store/Products/The-Impact-of-Identity-in-K-8-Mathematics--Rethinking--Equity-Based-Practices/

- 4. What are equitable instructional practices that support the development of students' mathematical identity and sense of agency?
- 5. How can we advocate for the implementation of these practices?

WEBINAR (September – November)

December 5, 2016

Presentation Slides

Webinar Recording

Webinar Chat 1 Transcript

December

Journal of Urban Mathematics Education (JUME) <u>http://education.gsu.edu/JUME</u>

(Three Articles)

Mathematics as Gatekeeper: Power and Privilege in the Production of Knowledge (Martin et al JUME 2010: <u>http://ed-osprey.gsu.edu/ojs/index.php/JUME/article/view/95/57</u>) Response Commentary

- "Both And"—Equity and Mathematics: A Response to Martin, Gholson, and Leonard (Confrey JUME 2010: <u>http://ed-osprey.gsu.edu/ojs/index.php/JUME/article/view/108/53</u>)
- Engaging Students in Meaningful Mathematics Learning: Different Perspectives, Complementary Goals (Battista JUME 2010: <u>http://ed-</u>osprey.gsu.edu/ojs/index.php/JUME/article/view/115/58)
- 6. How might the larger mathematics education community achieve a both—and approach?
- 7. How might the larger mathematics education community begin to respect the different perspectives of doing science employed when rigorously examining the critical issues of "diversity" and "equity" in mathematics education research?

January

Benjamin Banneker Association, Inc (BBA) <u>http://bannekermath.org/</u>

Beyond Banneker: Black Mathematicians and the Paths to Excellence (2015) by Erica N. Walker (Author)

- 8. What is the nature of the path for developing mathematics education excellence and scholarship?
- 9. What challenges do we face and what changes might mitigate them?

February

North American Study Group on Ethnomathematics (NASGEm) http://nasgem.rpi.edu

Culturally Situated Design Tools: Generative Justice as a Foundation for STEM Diversity

Eglash, R., Babbitt, W., Bennett, A., Bennett, K., Callahan, B., Davis, J., ... Tully, K. (forthcoming).In Y. Rankin and J. Thomas (eds.), *Moving Students of Color from Consumers to Producers of Technology.* Hershey PA: IGI Global. Preprint online

at https://docs.google.com/document/d/1kt0zEZ2JISH0QoveDmzckuWkzPltcmdMywZF9Glt7ug/edit

10. The "pipeline" model for STEM diversity is at best like oil production, taking kids out of their low-income communities for use elsewhere. What alternative models might be available?

Lesser, L. (2007). Critical values and transforming data: Teaching statistics with social justice. *Journal of Statistics Education*, 15(1), 1-21.

http://www.amstat.org/publications/jse/v15n1/lesser.pdf

- 11. How does statistics inform questions of equity and justice?
- 12. How do concepts of equity and justice in turn create rich vehicles for teaching concepts of statistics?

WEBINAR (December – February) Tuesday March 7, 2017 <u>Presentation Slides</u> Webinar Recording

Webinar Chat 2 Transcript

Equity & Social Justice in Mathematics Education
March
Women and Mathematics Education (WME) http://www.wme-usa.org
Women 1.5 Times More Likely to Leave STEM Pipeline after Calculus Compared to Men: Lack of
Mathematical Confidence a Potential Culprit
http://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0157447
13. What role can mathematics teacher educators play in developing and strengthening K-12
girls' mathematics confidence and identity?
14. What are effective instructional practices that support the development of girls' mathematical
confidence, identity and sense of agency? (Note: This is a sub-set "focus" of NCTM's
emphasis)
April
Association of Mathematics Teacher Educators (AMTE) <u>https://www.amte.net/</u>
Chapter 16: How Do I Learn to Like This Child So I Can Teach Him Mathematics: The Case of Rebecca
(Mary Q Foote) with accompanying commentaries:
 Commentary 1: Examining Interest Convergence and Identity: A Commentary on Foote's Case, Robert Q. Berry III.
• Commentary 2: Supporting a Teacher's Shift from Deficits to Funds of Knowledge: A
Commentary on Foote's Case, Maura Varley Gutiérrez.
 Commentary 3: A Commentary on Foote's Case, Nora G. Ramírez.
Chapter from: White, D. Y., Crespo, S. & Civil, M. (Eds.) (2016). Cases for mathematics teacher educators:
Facilitating conversations about inequities in mathematics classrooms. Charlotte, NC: Information Age Publishing.
Link to purchase book: http://www.infoagepub.com/products/Cases-for-Mathematics-Teacher-Educators
15. How would you support the teacher in addressing her negative views about the student and
his mother?
16. In what ways did the case and commentary authors' suggestions help you think about the
equity-related dilemmas you face in your own work?
May
National Council of Supervisors of Mathematics (NCSM) <u>http://www.mathedleadership.org/</u>
Excellence Through Equity: Five Principles of Courageous Leadership to Guide Achievement for
Every Student (2016) by Alan M. Blankstein and Pedro Noguera
Blanstein & Noguera (2016) talk about courage as the essential human virtue, and how courageous
leadership is the "engine that drives the paradigm shift".
17. What are the five principles of courageous leadership to guide achievement for every student
discussed by these authors?
18. How does your organization's vision reflect the five components of courageous leadership?
What can we do together to make visible these components?
WEBINAR (March – May)
Wednesday, June 7, 2017
Presentation Slides
Webinar Recording
Webinar Chat 3 Transcript

June

Robert Berry, University of Virginia

For White Folks Who Teach in the Hood... and the Rest of Y'all Too: Reality Pedagogy and Urban Education (2016) by <u>Christopher Emdin</u>

The author discusses different types of pedagogies grounded in the resources that communities can offer for teaching; The author introduces 7'Cs;

19. What are ways teachers can gain access to community resources (human & material)?

20. How can we make sense of this for mathematics teaching and learning?

July

California Mathematics Council-South (CMC-South) http://www.cmc-south.org

Teaching Mathematics for Social Justice: Conversations with Educators https://www.nctm.org/Store/Products/Teaching-Mathematics-for-Social-Justice--Conversations-with-

Educators/

- 21. How might teachers begin to teach mathematics for social justice? How might teacher educators begin to teach teachers how to teach mathematics for social justice?
- 22. How might teaching mathematics for social justice "look like?"
- 23. How can mathematics be re-envisioned as a means to create a more socially just world?

Association of State Supervisors of Mathematics (ASSM) <u>http://www.statemathleaders.org/</u>

- Great Lakes Equity Center, News Letter <u>April Equitable Mathematics Instruction</u>
- <u>The Mathematical YAWP</u> by Francis Su, MAA past president
- <u>Equity Within Mathematics Education Research as a Political Act: Moving From Choice to</u> <u>Intentional Collective Professional Responsibility</u>, Journal for Research in Mathematics Education, March 2017, Vol. 48, Issue 2
- 24. Whom do we shepherd towards taking more math courses and who do we discourage and why?
- 25. What role does mathematics play in human flourishing and how can we talk about it in our various roles?
- 26. What actions can we take as individuals, in our home communities, and in our scholarly communities to begin "Genuine Equity Work in Mathematics?"

WEBINAR (June – August) Thursday, September 7, 2017 <u>Presentation Slides</u> Webinar Recording

*Highlighted items are books that need to be purchased