Editorial

Equity, Identity, and Power: Disrupting Neutrality Myths

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We know that students learn more mathematics when given the opportunity to study more mathematics and not be tracked out of high-quality mathematics content. We know students achieve more when supported by their parents or guardians. We know that students can achieve much more when much more is expected of them. (Stiff, 2001)

We can’t afford to not make the conversations of equity central. (S. Crespo, personal communication, January 5, 2021)

There is little doubt of this: School mathematics is a powerful subject. Success in mathematics can provide students access to advanced courses in mathematics and science. This better prepares them to pursue STEM majors in college and STEM careers after graduating (Green & Sanderson, 2018). However, we know this access is inequitable (e.g., Davis & Jett, 2019; Faulkner et al., 2019). Mathematics teacher educators can work to address this.

In our call for manuscripts for this Focus Issue, the MTE Editorial Panel stated:

Equity, Access, and Empowerment have always impacted mathematics teacher education. Both NCTM and AMTE make explicit the fundamental role equity, access, and empowerment play in the work of mathematics teaching, developing mathematics teachers, and connecting to and understanding students’ mathematics identities. (MTE Editorial Panel Call for Manuscripts)

Through this call, we have reviewed and selected manuscripts to assist mathematics teacher educators to address equity, access, and empowerment.

In their book, Cases for Mathematics Teacher Educators: Facilitating Conversations About Inequities in Mathematics Classrooms, White et al. (2016)2 discuss Oakes’s three dimensions of change (technical, normative, and political) and choose to focus on the normative nature of our work. What we accept as normal is perhaps the most powerful of all.

Through the common frameworks spoken in (predominantly White) universities, school faculty rooms, media, and state legislatures, system-driven inequities are understood as normal. Tacit beliefs about students’ inherent capabilities and “needs” often guide discussions of mathematics instruction and policy. It is “what you know for sure” that causes the trouble (Stiff, 2016, https://www.youtube.com/watch?v=RRsv_twZ-kyw). Understanding students as populating a high/medium/low hierarchy is the norm. Justified as value-neutral, and normalized as educationally useful, students are discussed as having mathematical learning needs that are so great as to require separation. Separate, but driven by children’s needs. Separate, but educationally useful.

Separating children, and ranking children as more or less worthy of a certain kind of education, is a historical, and present-day reality in this country (Berry & Larson, 2019). Ideas of genetics as a driver of worth run deep in our political and scientific roots. Once these roots are seen and understood, we can better see and understand our cultural norms.

In the education community, and in the community at large, is a prevailing norm that considers mathematical development not about time and effort, but about equal parts “talent” and effort (Stevenson & Stigler, 1994 see Chapter 5, Effort and Ability, pp. 94–112). This norm is demonstrated by a tacit acceptance of the tracking structures in place in schools and the language we use when discussing student differentiation that “pushes our high students” and “supports our low students.” These tracking and ranking structures miscommunicate the power of effort versus talent. These tracking and ranking structures negatively affect pedagogy and learning. These tracking and ranking structures are among the issues that demand that we “can’t afford to not make the conversations of equity central” (S. Crespo, personal communication, January 5, 2021).

1 Thanks to our guest editor, Randall Groth, for his work on “It takes a village. . . .”

2 This volume facilitates conversation through a model wherein 17 MTEs provide a case, an attempt to disrupt inequity. For each case, three professors respond with their own understandings, critiques, and thoughts on the strengths and weaknesses of the case as a tool to disrupt change.
When effort over time is understood as the driver of academic progress, all children gain a seat at the table. All children are a part of the “talent” pool, because talent is made, not found. When it is instead “understood” that talent is an identifiable and critical characteristic possessed and already manifest in the very young, separation becomes a neutral move. An “academically justifiable” response to a world where students come in high, medium, and low sizes.  

The belief in this hierarchy of mathematical capabilities and needs sets different expectations for different students and boldly morphs language from generation to generation. Separate but equal becomes tracking. Tracking becomes differentiation. Differentiation justifies separation. Separate, but equal according to children’s “need.” Elite sub-groups are special, deserving of more . . . not traffickers of social privilege, but innocently “gifted.” The belief in the hierarchy is validated when some students do not respond well to superficial explanations and disjointed memorizations. The belief in this hierarchy of intelligence and worth leads to sorting children like cards.

The belief in that hierarchy also destroys the lush possibilities of math as a community discussion—a language to communicate human ideas of measure, value, and space. The belief in that hierarchy invades who you think can learn math, and thereby damages instruction. It damages instruction because instruction based on perceived “levels” of children creates ever more separated classrooms that require separate plans to match separate expectations. The belief in the hierarchy flies in the face of the common ways of learning wired in our brains. The belief in a hierarchy of intelligence, and worth, is a habit of caste and a habit of endowing superficial indicators with meaning and power (Wilkerson, 2020).

An acceptance in the idea that humans come in a “high,” “medium,” and “low” hierarchy of intelligence and worth affects children. This belief also influences the conversations we have about mathematics instruction. For instance, questions of content and pedagogy quickly transmogrify into questions about “my high kids” and “my low kids.”

If teaching math to different “levels” of children is normative, a justification is created for populating classrooms with nonneutral pipelines. Math instruction is steeped in cultural understandings about what it means to be good at math, who can “handle” higher level thinking, who is seen as “bored” and needs to be accelerated, and who is “distracted” and needs a lower class placement. When separating students is seen as a necessity, conversations are open to discussions of who “has help at home” and who “does not have the support they need to be challenged by the accelerated course.” This “neutral” idea that math is best taught if we level our students according to perceived potential allows us to discuss “high” and “low” groups as if this were a natural state of being. But this “natural state of being” is less about mathematical need and more about the habits of a culture that believes in the intellectual supremacy of some over others. Mathematical “need” becomes a neutral proxy for the racialized, language-influenced, and economically based nature of group compositions. It is not a leap, but a precondition built into the act of grouping students that expectations are different for the different groups. Solutions are often focused on how to repopulate these levels rather than on disbanding them. Rather than being held accountable for discussing students’ assets and strengths, their “funds of knowledge,” there is a tacit understanding that a particular type of education belongs only to certain people.

What we are signaling is that a particular kind of education only belongs to certain people. I think that’s, it’s fundamentally evil (Talikoff, 2020, p. 22) From the documentary I’m Smart Too, 2020. William Darity, Duke University, Samuel DuBois Cook Distinguished Professor of Public Policy

What they fail to understand is that I am able to see tracking and other forms of school inequities because I learned they exist. (White, 2016, p. 195)

As teachers of teachers of mathematics, many of us have come to think of mathematics in schools as a nonneutral, and sometimes cruel, space—a place and a context that demand change. As with developing skill in mathematics, teaching for equity is not a matter of one’s own experience with inequity, language, or race. It is, as with mathematics, something we learn. And learning is a matter of hard work, practice, reflection, and persistence. Critically, the act of noticing equity, and our own role in perpetuating (or disrupting) inequity, has pedagogical implications. By developing, and acting upon, our understanding of the normalized inequity in mathematics and mathematics education classrooms, we are positioned to improve our own mathematics instruction and the instruction of mathematics teachers. This, we think, is a powerful story of change: a cycle of culture in which MTs play a critical part. To disrupt habits of inequity—that winner-takes-all habit that boldly categorizes humans into less-than or greater-than, into “high flyers” or “my low babies,” into
The call for this issue. In these electronic pages, we continue to each article, are the four bullet points from the original outlines below, used to organize a brief introduction to disrupt the idea of the neutrality of our work. We hope this Focus Issue is a part of our learning, of our power.

Again, like mathematics, noticing inequity and responding to it are neither innate to some nor the responsibility of others. We are all, in one way or another, of this culture. We are all responsible to learn how these inequities exist—in structures, in classroom practices, in our own culturally habituated minds—and to act responsibly with our power.

**Disrupt the neutrality of our community habits.**

*Disrupt the idea that equity is an occasional topic, an optional layer, rather than the central focus of our field.* (T. Chao, personal communication, December 3, 2020)

This Focus Issue did not arise in a vacuum. It is the result of many who have provided us with the voices and vision to notice and discuss school mathematics and mathematics teacher education not as a neutral act, but as the gatekeeper in a nonneutral society. The call for this Focus Issue was created by the MTE Editorial Board in 2018. The call requested articles that address issues such as—

1. Integrating the work of mathematics teacher educators within critical frameworks directly addressing equity, identity, and power.

2. Providing evidence of how to engage preservice or inservice teachers in experiences that expose and take on issues of equity, identity, and power.

3. Conceptualizing mathematics teacher identity as connected to intersecting social spaces (i.e., home language, gender, immigration status, etc.); and

4. Presenting evidence regarding learning experiences that help prepare teachers to meet AMTE SPTM C.4. Social Contexts of Mathematics Teaching and Learning that states: “Well-prepared beginning teachers of mathematics realize that the social, historical, and institutional contexts of mathematics affect teaching and learning and know about and are committed to their critical roles as advocates for each and every student.” (MTE Editorial Board, 2018)

We hope this Focus Issue is a part of our learning, of our effort to disrupt the idea of the neutrality of our work. There are so many ways that our work matters, so many ways that we have power. The articles within this Focus Issue are varied in their approach to this conversation. The outlines below, used to organize a brief introduction to each article, are the four bullet points from the original call for this issue. In these electronic pages, we continue these discussions and look for ways to disrupt the neutrality of our community habits.

Bell et al. (2021) present a conceptual article that focuses on MTEs’ professional growth as a result of their engagement in a collaborative interrogation of three critical texts (*The Wretched of the Earth* [Fanon, 1961/2004]; *Education for Critical Consciousness* [Freire, 1968/2018]; and *The White Architects of Black Education* [Watkins, 2001]). The exploration of these texts offered critical frameworks that enabled the MTEs to understand their own work. In their reading group, the authors developed individual and collective critical lenses through their engagement with these texts and in their conversations. Their reflections were guided by the question: “How can a focus on foundational (i.e., historical, critical) texts help us reevaluate and reimagine our work as MTEs?” (p. 184). The authors treated their research as a naturalistic study, employing self-study methods when designing their data collection and analysis. Data sources included five 90-minute reading group meetings and one postreading group discussion, which were analyzed thematically. The authors draw on Zeichner and Liston’s (2014) key features of reflective teachers to guide their analysis. Three themes emerged from their discussions and reflections about equity, power, and oppression: mathematics education and current, non-education-related events; understanding the influences of power, oppression, and colonialism on mathematics education; and how to reform their own practices as mathematics teacher educators. Throughout this study, the authors aimed to deepen their own understanding of how power and oppression operate in order to design experiences that increase awareness among teachers. This study provides one example of how a group of educators engage in critical conversations that are needed to dismantle the inequities in our education system.

Bartell et al.’s (2021) article illustrates how we can engage inservice teachers in experiences that expose and take on issues of equity, identity, and power. Within the described professional development, mathematics teachers engaged with the levels of oppression activity in an attempt to support these teachers in understanding how oppression is multidimensional and presents itself within the mathematics classroom. The objectives of this activity include teachers being able to: “identify the
four levels of oppression; identify statements or actions as reflecting specific levels of oppression; justify what examples reflect a particular level of oppression; and adapt statements/examples to reflect different levels of oppression” (p. 168). Participants were tasked with identifying levels of oppression illustrated by educational statements before considering how narratives feed into specific statements about learners of mathematics. Exploring the question of “How does this activity support mathematics teachers’ understanding of levels of oppression?” (p. 168), data included whole- and small-group interactions and discussions. The ways in which participating teachers discussed and made reference to each level of oppression were the focus of this study’s findings. Evidence from data supports that participants were able to use the levels of oppression activity as a tool to embark on needed discussions around issues related to power and privilege. This activity can serve as a first step in providing both prospective and practicing teachers opportunities to consider oppression within mathematics education in ways that can take up issues of equity, identity, and power.

3. Conceptualizing mathematics teacher identity as connected to intersecting social spaces (i.e., home language, gender, immigration status, etc.).

Suh et al. (2021) detail the design and implementation of a professional development model focused on issues of equity, identity, and agency. To examine how learning trajectories might support equitable instruction, Suh offers a tool developed as part of her work with in-service teachers. The authors build on learning trajectory research, in particular Myers et al., 2015, to offer the community a learning trajectory-based lesson study. The key advent of this lesson study sequence is the vertical articulation to unpack the learning trajectories. This includes using the learning trajectory approach to support teachers in understanding how to leverage student assets such as language and culture and to build students’ own sense of identity and power with mathematics. The case study analysis found that “all content-related comments elaborated on student strategies and identified students’ mathematical strengths” (p. 229). Data analysis of teacher discussion further supports the idea that planning for all possible approaches to a mathematical task allows teachers to leverage different student approaches as classroom assets.


In the article, “If the World Were a Village: Learning Mathematics While Learning About the World,” Thanheiser and Koestler (2021) challenge preservice teachers (PSTs) with issues of identity and social context. The authors proffer a problem of practice that includes common PST attitudes toward mathematics as “politically neutral, boring” and “a set of rules and procedures” that are “difficult and scary” (p. 202). The activities shared here allow PSTs to “understand and analyze the world while learning essential mathematics topics in a context that they can envision using at the K–5 level.” (p. 202). By measuring the world with statistics, percentages, and raw numbers, PSTs have the opportunity to better understand their own membership in the world community. From there, they consider the smaller community in which they live. By using mathematics to recalibrate their own understandings of the world, math shifts from a neutral topic to a tool for making sense of the world and their own place within it. Analysis of student work and reflections indicate that PSTs “realize that the world is much more complex than they had originally thought” (p. 202). By disrupting PSTs’ understanding of their own place in the world, a space is created to disrupt perceptions and inaccuracies in other spaces as well.

We feel fortunate to have worked on this Focus Issue. Thanks to all of those who contributed and reviewed the articles that were considered for this issue. Manuscripts that consider these themes of equity, identity, language, and power continue to be welcomed for review. We close this editorial with a quote from Lee Stiff and remark that this is still true today and applies also to mathematics teacher educators. The goal is—

“to make the vision of a high-quality mathematics education for all students a reality. An important first step for mathematics teachers is to reflect on what we believe about our students and on what we are prepared to do to make student successes real. Remember, we set higher standards not only for our students but also for ourselves. (Stiff, 2002)

References


Stiff, L. (2001, November). Where there’s a will there’s a way. *NCTM News Bulletin*.


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