

The What, Who, and How of Equity in Mathematics Teacher Education

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BOOKS

- *Africa Counts: Number and Pattern in African Cultures* by Claudia Zaslavsky
- *African Fractals: Modern Computing and Indigenous Design* by Ron Eglash
- *Math That Matters* by David Stocker
(<http://www.policyalternatives.ca/publications/reports/math-matters>)
- *Rethinking Mathematics: Teaching Social Justice by the Numbers* edited by Eric Gutstein and Bob Peterson (<http://www.rethinkingschools.org/ProdDetails.asp?ID=9780942961553>)
- *The Multicultural Math Classroom: Bringing in the World* by Claudia Zaslavsky

WEBSITES

- Radical Math <http://www.radicalmath.org/>
- Rethinking Schools <http://www.rethinkingschools.org/index.shtml>
- Intl. Study Group on Ethnomathematics <http://isgem.rpi.edu/pl/ethnomathematics-web>

SAMPLE REFLECTION ASSIGNMENTS

302A – Number & Operations	302B – Geometry, Measurement, Algebra, Data Analysis, and Probability
<p>What is Math to You?</p> <p>Practices & Processes Standards for Mathematical Practice (CCSSI 2010, pp. 6–8). Process Standards [introduction] (NCTM 2000, pp. 52–71)</p> <p>Culture Perkins & Flores (2002) Zaslavsky (2001)</p> <p>Community & Critical Perspectives Varley Gutiérrez (2009) Leonard & Guha (2002)</p> <p>What, Who, and How Felton (2010)</p> <p>What is Math Now?</p>	<p>What is Math to You?</p> <p>Practices & Processes Standards for Mathematical Practice (CCSSI 2010, pp. 6–8). Process Standards [intro or grade band] (NCTM 2000, pp. 52–71)</p> <p>What, Who, and How Felton (2010)</p> <p>Stars and Beads (Ethnomathematics) Barkley & Cruz (2001) Hunt & Burshears (1951) Neumann (2003, pp. 37, 39, 45, 51) D’Ambrosio [optional] (2001)</p> <p>Social Justice Frankenstein (1998) Gutstein (2005)</p> <p>What is Math Now?</p>

REFERENCES

- Barkley, C. A., & Cruz, S. (2001). Geometry through beadwork designs. *Teaching Children Mathematics*, 7(6), 362–367.
- Common Core State Standards Initiative. (2010). *Common Core State Standards for mathematics*. Washington, DC: National Governors Association Center for Best Practices and the Council of Chief State School Officers. Retrieved from http://www.corestandards.org/assets/CCSI_Math_Standards.pdf
- D’Ambrosio, U. (2001). What is Ethnomathematics, and how can it help children in school? *Teaching Children Mathematics*, 7(6), 308–310.
- Felton, M. D. (2010). Is math politically neutral? *Teaching Children Mathematics*, 17(2), 60–63.
- Frankenstein, M. (1998). Reading the world with math: Goals for a critical mathematical literacy curriculum. In E. Lee, D. Menkart, & M. Okazawa-Rey (Eds.), *Beyond heroes and holidays: A practical guide to K-12 anti-racist, multicultural education and staff development* (pp. 306–313). Washington, DC: Network of Educators on the Americas.
- Gutstein, E. (2005). Math, maps, and misrepresentation. In E. Gutstein & B. Peterson (Eds.), *Rethinking mathematics: Teaching social justice by the numbers* (pp. 111–116). Milwaukee, WI: Rethinking Schools.
- Hunt, W. Ben, & Burshears, J. F. (1951). *American Indian beadwork*. New York, NY: Bruce Publishing Company.
- Leonard, J., & Guha, S. (2002). Creating cultural relevance in teaching and learning mathematics. *Teaching Children Mathematics*, 9(2), 114–118.
- National Council of Teachers of Mathematics. (2000). *Principles and standards for school mathematics*. Reston, VA: National Council of Teachers of Mathematics.
- Neumann, M. D. (2003). The mathematics of Native American star quilts. *Mathematics Teaching in the Middle School*, 9(4), 230–236.
- Perkins, I., & Flores, A. (2002). Mathematical notations and procedures of recent immigrant students. *Mathematics Teaching in the Middle School*, 7(6), 346–351.
- Varley Gutiérrez, M. (2009). “I thought this U.S. place was supposed to be about freedom”: Young Latinas engage in mathematics and social change to save their school. *Rethinking Schools*, 24(2), 36–39.
- Zaslavsky, C. (2001). Developing number sense: What can other cultures tell us? *Teaching Children Mathematics*, 7(6), 312–319.