

2016

Mathematics as (double) gatekeeper, student as bordercrosser: A case study

Susan Ophelia Cannon

Georgia State University, Sosophelia@gmail.com

Kayla Myers

Georgia State University, kmyers@gsu.edu

Stephanie Behm Cross

Georgia State University, scross@gsu.edu

Follow this and additional works at: https://scholarworks.gsu.edu/mse_facpub

 Part of the [Curriculum and Instruction Commons](#), and the [Junior High, Intermediate, Middle School Education and Teaching Commons](#)

Recommended Citation

Cannon, S. O., Myers, K. D., & Cross, S. B. (2016). Mathematics as (double) gatekeeper, student as bordercrosser: A case study. In M. B. Wood, E. E. Turner, M. Civil, & J. A. Eli (Eds.), *Proceedings of the 38th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (p. 929). Tucson, AZ: The University of Arizona.

This Conference Proceeding is brought to you for free and open access by the Department of Middle and Secondary Education at ScholarWorks @ Georgia State University. It has been accepted for inclusion in Middle and Secondary Education Faculty Publications by an authorized administrator of ScholarWorks @ Georgia State University. For more information, please contact scholarworks@gsu.edu.

MATHEMATICS AS (DOUBLE) GATEKEEPER, STUDENT AS BORDERCROSSER: A CASE STUDY

Susan Cannon
Georgia State University
Scannon5@student.gsu.edu

Kayla Myers
Georgia State University
kmyers@gsu.edu

Stephanie Behm Cross
Georgia State University
scross@gsu.edu

Keywords: Equity and Diversity, Mathematical Knowledge for Teaching, Policy Matters, Teacher Education-Preservice

In this paper, we consider “unjust uses of mathematics” (p. 15) for one student at a large public university in the southeastern United States (Stinson, 2004). We focus on the oppressive and withholding functions of one particular mathematics assessment as Jamesha attempted to cross the border into teacher education.

This case study traces the story of an undergraduate middle grades preservice teacher who was provisionally accepted into an urban teacher residency program for her final practicum and student teaching year, and then subsequently denied access to the program due to low scores on a mathematics entrance exam. Though Jamesha’s areas of concentration were language arts and history, she was required to pass a program admission assessment in mathematics that required knowledge of advanced mathematics in order to gain official entrance into the middle grades program and move forward in the urban residency program. After two failed attempts to pass the math exam, Jamesha studied alongside peers and professors and worked through test prep materials she and others had purchased. She took the test three more times and still did not receive scores high enough to “pass” the exam. Jamesha was removed from the residency program and denied admittance into the teacher education program. She was forced to change majors and in the following semester, she failed all of her classes outside of the education department. Jamesha remained determined to become a teacher; she decided to take the assessment a 6th time and reenter the education degree program.

In our consideration of this case, we utilize a poststructuralist lens (Foucault, 1981/2000) to think about mathematics as “gatekeeper” (Stinson, 2004) as well as mathematics and ‘teacher’ subject position construction, complication, and negotiation (Britzman, 2003; Davies, 2003). We pose and consider the following questions: How does mathematics assessment function as a border to teacher education for non-mathematics teachers? How is a student’s subjectivity constructed through assessment? “How does school mathematics as gatekeeper function? Where is school mathematics as gatekeeper to be found?” (Stinson, 2004, p.16).

The poster will map some of the ways that the mathematics program admission assessment functions as a gatekeeper for Jamesha. We will also consider how Jamesha’s subjectivity as teacher and mathematician was (re)constructed by the assessment, as well as how her subject position as a student in a large university affected her navigation and negotiation of the structures in place in the teacher education program and subsequently in her alternate degree program.

References

- Britzman, D. (2003). *Practice makes practice: A critical study of learning to teach*. 2nd Edition. Albany, NY: State University of New York Press.
- Davies, B. (2003). *Frogs and snails and feminist tales: Preschool and gender*. New Jersey: Hampton Press Incorporated.
- Foucault, M. (2000). So is it important to think? In J. D. Faubion (Ed.), *Power* (pp. 454-458). New York: The New Press. (Original work published 1981).
- Stinson, D. W. (2004). Mathematics as “gate-keeper”(?): Three theoretical perspectives that aim toward empowering all children with a key to the gate. *The Mathematics Educator*, 14(1), 8.