

IN MEMORIAM

**“I am a teacher. That’s what I’ve done almost
all my life. I teach.”**

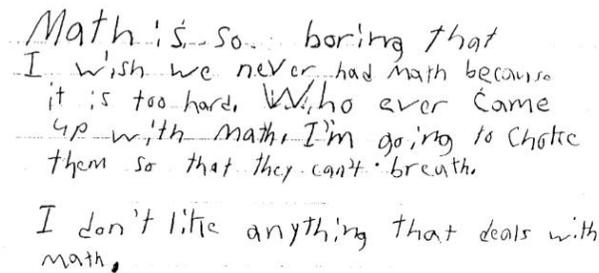
Dr. Carol E. Malloy
(June 6, 1943–January 17, 2015)

Robert Q. Berry, III
University of Virginia

Mark W. Ellis
California State University, Fullerton

Crystal H. Morton
Indiana University–Purdue University

Jan A. Yow
University of South Carolina



Math is so boring that
I wish we never had math because
it is too hard. Who ever came
up with math. I'm going to choke
them so that they can't breathe.

I don't like anything that deals with
math.

These words, handwritten by a middle-school student, sat framed on Dr. Carol E. Malloy’s desk until her retirement from the University of North Carolina at Chapel Hill (UNC) in 2009. The words reminded her of how many students feel and perceive mathematics. Dr. Malloy stated, “All students have the ability to learn if given the opportunity. ...That student did not have the opportunity” (Hobbs, 2009, ¶3). Opportunities to learn, access, and equity are themes found throughout

ROBERT Q. BERRY, III is an associate professor at the University of Virginia in the Curry School of Education, 405 Emmet Street, Charlottesville, VA, 22904; e-mail: robertberry@virginia.edu. His scholarship focuses on equity issues in mathematics education, qualitative metasynthesis as a methodological approach for evidence-based practices, and mathematics instructional quality.

MARK W. ELLIS is a professor of secondary education at California State University, Fullerton, 2600 E. Nutwood Ave., Suite 600, Fullerton, CA, 92831; e-mail: mellis@fullerton.edu. A National Board Certified Teacher of mathematics, his scholarship focuses on equity issues in mathematics education and professional development for teachers of mathematics aimed at creating learning environments that promote success for all students.

CRYSTAL H. MORTON is an associate professor of mathematics education in the School of Education at Indiana University–Purdue University, 902 West New York Street, Indianapolis, IN, 46202; e-mail: cranhill@iupui.edu. Her scholarship focuses on gaining a greater understanding of African American students’ mathematics knowledge and learning through rigorous and relevant curricular innovations.

JAN A. YOW is an associate professor of mathematics education in the College of Education at University of South Carolina, 820 S. Main Street, Columbia, SC, 29208; e-mail: jyow@sc.edu. As a National Board Certified Teacher, her scholarship focuses on the development of mathematics teacher leaders who can provide high quality mathematics instruction for all students.

Dr. Malloy's work. In an interview upon her retirement, she reflected on the field of mathematics education, stating:

The issues related to opportunity have come to the surface and are being discussed, though we haven't quite figured out how to make universal changes in opportunity and access. The mathematics education community is broader and more diverse now, which I think is extremely important. (Hobbs, 2009, ¶10)

Dr. Malloy's contribution is one of the primary reasons why "the mathematics education community is broader and more diverse."

Dr. Carol E. Malloy was a mathematics teacher, teacher educator, and mentor whose career spanned more than four decades. Reflecting on her work gives us the opportunity not only to speak to the tremendous impact Dr. Malloy has had on the field, but also to share some personal memories of the impact she had on those of us in the field who were privileged to spend time with her as mentees, colleagues, teachers, and friends. Dr. Malloy's vision, courage, and commitment made issues of equity in mathematics education visible to and relevant for all. While there is still much work to be done, her work has established that equity is not peripheral to efforts to improve mathematics teaching and learning but rather at the heart of this work.

It has been said that Dr. Malloy communicated to her students the importance of not trying to be "the best" but of doing "their best" (M. Malloy, personal communication, January 24, 2015). It is with this admonition in mind that we strive for our best. For Dr. Malloy, striving to be our best meant having a plan of action and being thoughtful and purposeful in our actions. Her son, Michael Malloy, described a central lesson she taught us all by quoting her, "If you do not have a plan to succeed, you have a plan to fail" (Hobbs, 2015, ¶6). Dr. Malloy's career and accomplishments represent a model plan for success in mathematics education.

Teaching

Dr. Malloy was first and foremost a teacher of mathematics and was a model for not only how to scaffold deep learning but also how to engage in lifelong learning. She taught more than twenty years as a middle and high school mathematics teacher in four urban school districts in Pennsylvania, Florida, and Wisconsin. It was in her work as a teacher that she established herself as a champion for the brilliance and resiliency of all learners—especially African American learners—to understand and excel in mathematics. She marked her seventh year of teaching high school as the year she became a "real teacher":

I started going to see parents in their homes, writing notes to them and calling when their children did well and also when I needed help with different issues with students.

...I engaged in extra-curricular activities with the students, played on the teachers' basketball team and attended many after-school activities. It changed the whole way I taught. That was the year I became a real teacher. My students and I became a part of the same learning community. (Hobbs, 2009, ¶12)

As a teacher, Dr. Malloy prioritized building conceptual understanding by drawing on her knowledge of mathematics and knowledge of students as thinkers. In all of her work, she aimed to demonstrate both the beauty of mathematics and the students' ability to make sense of mathematics. For example, in her article "Perimeter and Area through the van Hiele Model" (Malloy, 1999b) she used what appeared a simple geometry task to illustrate significant pedagogical issues related to allowing all students access to meaningful mathematics learning. Dr. Malloy's teachings demonstrated that while "teachers motivate and facilitate learning, they must recognize and use students' characteristics and behaviors of resiliency to encourage intrinsic motivation and to help students become more responsible about learning mathematics" (Malloy & Malloy, 1998, p. 314). She believed that promoting resilient processes in students is critical to the success of students in learning mathematics.

Dr. Malloy's influence as a teacher was not limited to her time as a high school teacher. Her focus on mathematics was supported in her work for McGraw-Hill Education in which she authored middle grades and high school mathematics textbooks. In 1997, UNC recognized her excellence in teaching by awarding her the Favorite Faculty Award.

Scholarship

Dr. Malloy's scholarship and teaching on access and equity is well noted in mathematics education and school reform. Her dissertation research is an example of how she integrated mathematics and issues of equity. In this work, she examined the problem-solving characteristics, strategy selection and use, and verification actions of 24 African American eighth-grade students. She stated her dissertation was "motivated by the lack of empirical research available about how African American students solve mathematics problems and by the uneven achievement reports for these students" (Malloy, 1995, p. iii). Dr. Malloy's dissertation was significant at the time because its focus on African American students as learners of mathematics was unprecedented. This work helped pave the way for researchers with similar interests to position African American learners as the focal point of study rather than taking on an achievement lens focusing on between-group gaps and comparisons. Her body of work communicates the implicit message that African American students are worth studying in their own right and comparisons to other groups of learners are not always necessary or instructive when it comes to

understanding how to promote success for those served poorly by traditional schooling practices.

Understanding African American students' mathematical learning was a central theme through much of Dr. Malloy's work. She brought light to the fact that "mathematics educators have little knowledge of how African American students perceive themselves as mathematics students, how they approach mathematics, or the role of culture in their perception and mathematics performance" (Malloy, 1997, p. 23). Dr. Malloy's pioneering work precipitated a still-growing knowledge base on African American learners of mathematics. During the almost twenty years since her dissertation, there has been a significant increase in research documenting and examining the experiences of African American students in mathematics. Much of the increase in the knowledge base is built on the foundations set forth by Dr. Malloy, including the work of scholars whose dissertations she chaired (Berry, 2003; Eatmon, 2007; Hill, 2008; Noble III, 2009), but her influence is not limited to her own students. Mathematics education scholars far and wide have looked to Dr. Malloy and her work as seminal to the study of African American children in mathematics. One can argue that Dr. Malloy's work has inspired and informed a new generation of researchers who have increased the knowledge base about African American learners of mathematics and who reject theories and discourses that suggest African American learners are deficient or inferior to other learners.

A review of Dr. Malloy's scholarship provides the mathematics education community with a framework for how to include African American students (see, e.g., Malloy, 1997; 1999a; 2000; 2004; 2008a; 2008b). She suggested: (a) providing teachers with training to develop positive student-teacher interactions; (b) facilitating positive peer interaction in multiracial settings that promote communication; (c) mentoring of students and social support systems; (d) providing additional learning opportunities through co-curricular activities; (e) collaborating with community-based agencies; (f) offering career exploration, appropriate course selections, and preparation for postsecondary schooling; and (g) providing students with access to high quality mathematics teaching, curricula materials, and opportunities to learn (Malloy, 1997). She stated that these "recommendations can be implemented for all students; however, they are particularly important to the mathematically underserved and underrepresented African American student populations" (p. 23).

Service

Dr. Malloy was a valued, long-term servant-leader in the mathematics education community. She served on the Board of Directors for the National Council of Teachers of Mathematics (NCTM) and as president of the Benjamin Banneker Association (BBA). Additionally, she served on the writing team of

NCTM's (2000) *Principles and Standards for School Mathematics* and as lead of the revision to the Standards for Teachers of Mathematics for the National Board for Professional Teaching Standards (NBPTS). She was lead editor for the NCTM book series *Mathematics for Every Student: Responding to Diversity* (2009) and many others. Among Dr. Malloy's numerous service awards she received the BBA Distinguished Member Award in 2003, the West Chester University (PA) Distinguished Alumna Award in 2004, the first annual UNC-Chapel Hill School of Education Black Alumni Impact Award in 2010, the BBA Lifetime Achievement Award in 2013, the NCTM Lifetime Achievement Award in 2013, and the UNC School of Education Distinguished Leadership Award in 2014.

As important as service at the national level was to Dr. Malloy, she also recognized the opportunity and responsibility she had as a faculty member to mentor students at all levels. UNC recognized Dr. Malloy's outstanding mentoring by awarding her the UNC Faculty Mentoring Award in 2009. Each of us (i.e., the authors of this memorial tribute) benefitted from her willingness to take an interest in not only our academic growth but also our personal growth and well-being. We each have memories of times Dr. Malloy took notice of a change in demeanor and made time to listen to what might be going on in our lives. For her, mentoring meant personal engagement with the whole person. In an interview upon her retirement in 2009, Dr. Malloy glanced across a multitude of photos of former students that fill her office and stated: "This is my life. I'm so fortunate to have had these relationships. I look at these kids and think to myself, 'Oh, my goodness. They are a legacy that would make anyone extremely proud. They're wonderful!'" (Hobbs, 2009, ¶19).

Lessons Learned

The field of mathematics education is better because of Dr. Malloy's tireless dedication to ensure it would be—not for professional gain, but because of a personal love for people and a drive to do what is right for the students who most need access to opportunities and support to succeed with mathematics. Those of us who humbly follow in her legacy must keep in mind that still too many students "don't like anything that deals with math." We must therefore act upon our responsibility to further efforts to expand quality mathematics education for all students. It is our intent and our hope that each of us do right by our mentor and remain focused on what matters most in our work as mathematics educators—understanding and respecting the students we serve and those who are served by the teachers with whom we have the privilege to interact.

For more than four decades, the mathematics education community has felt Dr. Malloy's strong presence as a role model and an exemplar of the power of sincerity, grace, persistence, and action. She leaves a legacy of excellence. Included

in the appendices are abbreviated examples of this legacy with a listing of some of her publications (Appendix A) and doctoral dissertations she chaired (Appendix B).

References

- Berry, R. Q., III. (2003). *Voices of African-American male students: A portrait of successful middle school mathematics students* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3086494).
- Eatmon, D. (2007). *Understanding the mathematics success of African-American students at a residential high school* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3272782).
- Hill, C. A. (2008). *Making the invisible visible: An examination of African American students' strategy use during mathematical problem solving* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3304277).
- Hobbs, M. (2009, April 7). *Mathematics educator Carol Malloy to retire this summer*. Retrieved from http://soe.unc.edu/news_events/faculty_news/2009/090417_malloy.php
- Hobbs, M. (2015, January 27). *Carol Malloy remembered as accomplished teacher, beloved mentor*. Retrieved from http://soe.unc.edu/news_events/faculty_news/2015/012015-malloy-obit.php
- Malloy, C. E. (1995). *African-American eighth grade students' mathematics problem solving: Characteristics, strategies, and success* (Doctoral dissertation). University of North Carolina at Chapel Hill, Chapel Hill, NC.
- Malloy, C. E. (1997). Including African American students in the mathematics community. In J. Trentacosta & M. Kenney (Eds.), *Multicultural and gender equity in the mathematics classroom* (pp. 23–33). Reston, VA: National Council of Teachers of Mathematics.
- Malloy, C. E. (1999a). Developing mathematical reasoning in the middle grades: Recognizing diversity. In L. Stiff & F. Curcio (Eds.), *Developing mathematical reasoning in grades K–12* (pp. 13–21). Reston, VA: National Council of Teachers of Mathematics.
- Malloy, C. E. (1999b). Perimeter and area through the van Hiele Model. *Mathematics Teaching in the Middle School*, 5(2), 87–90.
- Malloy, C. E. (2000). The kids got it and the teachers smiled: A charter fulfills its vision. *The High School Journal*, 83(4), 19–26.
- Malloy, C. E. (2004). Equity in mathematics education is about access. In R. Rubenstein & G. Bright (Eds.), *Perspectives on the teaching of mathematics* (pp. 1–14). Reston, VA: National Council of Teachers of Mathematics.
- Malloy, C. E. (2008a). Looking throughout the world for democratic access to mathematics. In L. D. English (Ed.), *Handbook of international research in mathematics education* (2nd ed., pp. 20–31). New York, NY: Routledge.
- Malloy, C. E. (2008b, March). A historical perspective on the preparation of mathematics teachers in the areas of student diversity and the education of disadvantaged students. *Paper presented at Symposium on the Occasion of the 100th Anniversary of ICMI: Rome, Italy*. Retrieved from <https://www.unige.ch/math/EnsMath/Rome2008/WG2/Papers/MALLOY.pdf>
- Malloy, C. E. (Ed.). (2009). *Mathematics for every student: Responding to diversity*. Reston, VA: National Council of Teachers of Mathematics.
- Malloy, C. E., & Malloy, W. W. (1998). Resiliency and Algebra I: A promising non-traditional approach to teaching low-achieving students. *The Clearing House*, 71(5), 314–317.
- National Council of Teachers of Mathematics. (2000). *Principles and standards for school mathematics*. Reston, VA: National Council of Teachers of Mathematics.
- Noble, R., III. (2009). *The impact of self-efficacy on the mathematics achievement of African American males in postsecondary education* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3352993)

APPENDIX A
 Bibliography for Dr. Carol E. Malloy
 (Listed Chronologically)

- Malloy, C. E. (1995). *African-American eighth grade students' mathematics problem solving: Characteristics, strategies, and success* (Doctoral dissertation, University of North Carolina at Chapel Hill).
- Malloy, C. E. (1997). Including African American students in the mathematics community. In J. Trentacosta & M. Kenney (Eds.), *Multicultural and gender equity in the mathematics classroom* (pp. 23–33). Reston, VA: National Council of Teachers of Mathematics.
- Malloy, C. E. (1997). Mathematics projects promote students' algebraic thinking. *Mathematics Teaching in the Middle School*, 2(4), 282–288.
- Malloy, C. E., & Brader-Araje, L. (Eds.). (1998). *Challenges in the mathematics education of African American children: Proceedings of the Benjamin Banneker Association Leadership Conference*. Reston, VA: National Council of Teachers of Mathematics.
- Malloy, C. E., & Jones, M. G. (1998). An investigation of African American students' mathematical problem solving. *Journal for Research in Mathematics Education*, 29(2), 143–163.
- Malloy, C. E., & Malloy, W. W. (1998). Issues of culture in mathematics teaching and learning. *The Urban Review*, 30(3), 245–257.
- Malloy, C. E., & Malloy, W. W. (1998). Resiliency and Algebra I: A promising non-traditional approach to teaching low-achieving students. *The Clearing House*, 71(5), 314–317.
- Malloy, C. E. (1999). Book review of *Standing Outside on the Inside: Black Adolescents and the Construction of Academic Identity*. *Multicultural Perspectives*, 1(1), 43.
- Malloy, C. E. (1999). Developing mathematical reasoning in the middle grades: Recognizing diversity. In L. Stiff & F. Curcio (Eds.), *Developing mathematical reasoning in grades K–12* (pp. 13–21). Reston, VA: National Council of Teachers of Mathematics.
- Malloy, C. E. (1999). Perimeter and area through the van Hiele Model. *Mathematics Teaching in the Middle School*, 5(2), 87–90.
- Pugalee, D. K., & Malloy, C. E. (1999). Teachers' action in community problem solving. *Mathematics Teaching in the Middle School*, 4(5), 296–300.
- Malloy, C. E. (2000). A new look at geometry taught in the middle grades. *New England Mathematics Journal*, 32(2), 78–87.
- Malloy, C. E. (2000). The kids got it and the teachers smiled: A charter fulfills its vision. *The High School Journal*, 83(4), 19–26.
- Malloy, C. E., & Guild, D. B. (2000). Problem solving in the middle grades. *Mathematics Teaching in the Middle School*, 6(2), 105–108.
- Noblit, G. W., Malloy, W. W., & Malloy, C. E. (2001). *The kids got smarter: Case studies of successful Comer schools. Understanding education and policy*. Cresskill, NJ: Hampton Press.
- Bright, G., Jordan, P., Malloy, C., & Watanabe, T. (2002). *Navigating through measurement in grades 6–8*. Reston, VA: National Council of Teachers of Mathematics.
- Malloy, C. (2002). Democratic access to mathematics through democratic education: An introduction. In L. D. English (Ed.), *Handbook of international research in mathematics education* (pp. 17–26). Mahwah, NJ: Erlbaum.
- Malloy, C. E., & Jones, M. G. (2002). An investigation of African American students' mathematical problem solving. In J. Sowder & B. Schappelle (Eds.), *Lessons learned from research* (pp. 191–196). Reston, VA: National Council of Teachers of Mathematics.
- Pugalee, D. K., Frykholm, J., Johnson, A., Slovin, H., Malloy, C., & Preston, R. (2002). *Navigating through geometry in grades 6–8*. Reston, VA: National Council of Teachers of Mathematics.

- Malloy, C. E. (2003). Teaching and learning geometry through student ownership. *New England Mathematics Journal*, 35(2), 16–27.
- Malloy, C. E. (2004). Equity in mathematics education is about access. In R. Rubenstein & G. Bright (Eds.), *Perspectives on the teaching of mathematics* (pp. 1–14). Reston, VA: National Council of Teachers of Mathematics.
- Ellis, M., & Malloy, C. E. (2007). Preparing teachers for democratic mathematics education. In D. Pugalee, A. Rogerson, & A. Schinck (Eds.), *Proceedings of the 9th International Conference: Mathematics Education in a Global Community* (pp. 160–164). Charlotte, NC: Mathematics in the 21st Century. Retrieved from http://math.unipa.it/~grim/21_project/21_charlotte_Ellis%20and%20MalloyPaperEdit.pdf
- Ellis, M. W., Malloy, C. E., Meece, J. L., & Sylvester, P. R. (2007). Convergence of observer ratings and student perceptions of reform practices in sixth-grade mathematics classrooms. *Learning Environments Research*, 10(1), 1–15.
- Malloy, C. E. (2008). Looking throughout the world for democratic access to mathematics. In L. D. English (Ed.), *Handbook of international research in mathematics education* (2nd ed., pp. 20–31). New York, NY: Routledge.
- Malloy, C. E. (2008, March). A historical perspective on the preparation of mathematics teachers in the areas of student diversity and the education of disadvantaged students. *Paper presented at Symposium on the Occasion of the 100th Anniversary of ICMI: Rome, Italy*. Retrieved from <https://www.unige.ch/math/EnsMath/Rome2008/WG2/Papers/MALLOY.pdf>
- Malloy, W. W., Malloy, C. E., & Noblit, G. W. (2008). *Bringing systemic reform to life: School district reform and Comer schools*. Cresskill, NJ: Hampton Press.
- Malloy, C. E. (2009). Instructional strategies and dispositions of teachers who help African American students gain conceptual understanding. In D. B. Martin (Ed.), *Mathematics teaching, learning, and liberation in the lives of Black children* (pp. 88–122). New York, NY: Routledge.
- Malloy, C. E. (Ed.). (2009). *Mathematics for every student: Responding to diversity*. Reston, VA: National Council of Teachers of Mathematics.
- Malloy, C. E., & Noble, R., III. (2009). The education of African American children in charter schools. In L. C. Tillman (Ed.), *The SAGE handbook of African American education* (pp. 367–382). Thousand Oaks, CA: Sage.
- Strutchens, M., Bay-Williams, J., Civil, M., Chval, K., Malloy, C. E., White, D. Y., & Berry, R. Q., III. (2012). Foregrounding equity in mathematics teacher education. *Journal of Mathematics Teacher Education*, 15(1), 1–7.

APPENDIX B

Dissertations Chaired by Dr. Carol E. Malloy (Listed Chronologically)

- Sliva, J. A. (1998). *Factors that relate to middle grades mathematics teachers' attitudes toward mainstreaming* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 9840991).
- Jeffries, M. J. (2000). *In their own words: African-American educators' perceptions of the sustaining characteristics associated with segregated schools* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 9968609)
- Berry, R. Q., III. (2003). *Voices of African-American male students: A portrait of successful middle school mathematics students* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3086494).
- Edmunds, J. A. (2004). *"Just good teaching": Viewing effective teachers' use of technology with low-performing students through multiple lenses* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3129703).
- Bryan, W. R. (2005). *Effects of a study abroad experience on student views of whiteness* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3170405).
- Ellis, M. W. (2005). *School mathematics practices and the games of truth that are school mathematics* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3190242).
- Eatmon, D. (2007). *Understanding the mathematics success of African-American students at a residential high school* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3272782).
- Gould, T. O. (2007). *A longitudinal analysis of the effects of collective bargaining on interstate teacher salary differences from 1960 to 2000* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3272552).
- Yow, J. A. (2007). *"Visible but not noisy": A continuum of secondary mathematics teachers' thinking about teacher leadership* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3257555).
- Hill, C. A. (2008). *Making the invisible visible: An examination of African American students' strategy use during mathematical problem solving* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3304277).
- Gordon, E. M. (2009). *Mathematically successful Latina and Latino students: Stressors and supports* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3366335).
- Joyner, R. L. (2009). *Adkin high school and the relationships of segregated education* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3352892).
- McGlone, C. W. (2009). *A case study of pre-service teachers experiences in a reform geometry course* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3352934).
- Noble, R., III. (2009). *The impact of self-efficacy on the mathematics achievement of African American males in postsecondary education* (Doctoral dissertation). Retrieved from ProQuest dissertations & theses full text: The humanities and social sciences collection. (Order no. 3352993).