

# Dr. Melva R. Grant

Assistant Professor of Mathematics Education  
STEM Education and Professional Studies Department

Darden College of Education  
Old Dominion University  
(757) 683-5725  
Email: mgrant@odu.edu

## EDUCATION:

Ph. D., The Ohio State University, Dec. 2009.  
Major: Mathematics Education  
M.S.Ed., The Ohio State University, May 1998.  
Major: Mathematics Education  
B.S., University of Maryland College Park, May 1984.  
Major: Electrical Engineering  
B.S., Coppin State University, May 1983.  
Major: Mathematics

### **K-12 Teaching Credentials:**

7-12 Mathematics Teaching Certification, State of Ohio. (July 1998 – June 2010).  
Adult and Young Adult (AYA) Mathematics Teaching License, State of Ohio. (July 2010 - June 2015).

## EXPERIENCE:

### **Public Sector: Teaching & Administrative**

Assistant Professor of Mathematics Education, STEM Education and Professional Studies Department, Old Dominion University. (July 2010 - Present).  
Instructor, Mathematics, Science, & Teaching Department (MSaT), Ohio State University. (September 2009 - August 2010).  
Graduate Research Assistant, MSaT, Ohio State University. (January 2005 - December 2009).  
Graduate Teaching Assistant, MSaT, Ohio State University. (January 2006 - December 2007).  
Mathematics Education Consultant, Ohio Department of Education. (June 2001 - June 2003).  
Mathematics Teacher & Department Chair, Eastmoor Academy High School, Columbus City School, OH. (August 1998 - June 2001).  
Instructor, Mathematics Department, Ohio State University. (August 1997 - May 1998).

### **Private Sector: Professional Experiences**

Technical Assistance Coach, MMG EdServices LLC, Columbus, OH. (June 2007 - June 2010).  
Editor for Electronic Classroom of Tomorrow (ECOT), MMG EdServices LLC, Columbus, OH. (September 2005 - June 2006).  
National Mathematics Consultant/Ohio Manager, Project GRAD USA, Houston, TX. (July 2003 - December 2005).  
Network Software Program Manager, CompuServe, Columbus, OH. (September 1994 - June 1997).  
Regional Sales Representative, Microsoft Corporation, Cincinnati, OH. (January 1994 - September 1994).

## **Dr. Melva R. Grant**

Assistant Professor of Mathematics Education  
STEM Education and Professional Studies Department

Microcode & Large Systems Engineer, IBM Corporation, Manassas, VA & Columbus, OH. (May 1984 - December 1993).

### **HONORS, AWARDS AND PRIZES:**

Largest Grant Award, Darden College of Education. (May 3, 2011).  
Most Collaborative Grant, Darden College of Education. (May 3, 2011).  
Model Virginia Programs and Initiatives for Military Families, VDOE's Virginia Council. (July 2012).

### **TEACHING:**

#### **Old Dominion University**

MAPD 601, NUMBER/OPERATIONS MATH SPEC, 2 courses.  
MAPD 602, GEOMETRY/MEASURE MATH SPEC, 1 course.  
MAPD 605, ALGEBRA/FUNCTIONS MATH SPEC, 2 courses.  
STEM 433, DEV INST STRAT-TCH ELEM MATH, 1 course.  
STEM 553, DEV INST STRAT-TCH MID/HS MATH, 3 courses.  
STEM 661, MATH SPECIALISTS TEACH LEADERS, 3 courses.  
STEM 658, DEV INST STRAT-TCH MID/HS MATH, 2 courses.  
STEM 668, MATH SPECIALISTS INTERNSHP, 1 course.

#### **Dissertation Committees**

Amanda Shackelford Roberts (2013, May). Dissertation: Instructional design Standards for Preparation of Pre-Service Teachers of Integrated STEM Education, Occupational and Technical Studies, Old Dominion University. (Committee Chair: John Ritz).  
Kelli A. Mason (2015, May). Dissertation: AVID Evaluation of the AVID College Readiness System, Educational Foundations and Leadership, Old Dominion University. (Committee Chair: Jay Scribner).  
Lisa Litchmore (Anticipated graduation, 2015, Dec). Dissertation: TBD, Educational Foundations and Leadership, Old Dominion University. (Committee Chair: Steve Myran).  
Ralteta Summers (Anticipated graduation, 2015, Dec). Dissertation: TBD, Curriculum and Instruction, Old Dominion University. (Committee Chair: Eckoff).

### **PUBLISHED BOOKS, MONOGRAPHS, BOOK REVIEWS, AND PAPERS:**

#### **Refereed Journal Articles**

**Grant, M. R.** (2014). Urban and rural high school students' perspectives of productive peer culture for mathematics learning. *Journal of Urban Learning, Teaching, and Research*, 10, 39-49.  
Berry, III., R. Q., **Grant, M. R.**, McKinney, S. E., & Berube, C. (2014). Investigating estimation: Influences of time and confidence of urban middle school students. *International Journal of Academic Research in Education and Review*, 2(7), 141-151. DOI: 10.14662/IJARER2014.034.  
Diawara, N., Indika, S., **Grant, M.**, & Maboudou-Tchao, E. (2014). The bivariate Erlang and its application in modeling recurrence times of kidney dialysis data. *International Journal of Statistics in Medical Research*, 3, 88-93. DOI: <http://dx.doi.org/10.6000/1929-6029.2014.03.02.2>

## Dr. Melva R. Grant

Assistant Professor of Mathematics Education  
STEM Education and Professional Studies Department

Enderson, M., & **Grant, M.** (2013). Emerging Engineers in Middle School Mathematics Classes. *Mathematics Teaching in the Middle School*, 18(6), 362-369.

Fantz, T., & **Grant, M.** (2013). An Engineering Design STEM Project: T-shirt Launcher. *The Technology and Engineering Teacher*, 72(8), 14-20.

### Refereed Book Chapters

Brosnan, P. A., Schmidlin, A., **Grant, M.** (2013). Successful mathematics achievement is attainable. In John Hattie and Eric M. Anderman (Eds.), *International Guide to Student Achievement*. New York: Taylor & Francis/Routledge.

Grant, M. R. (2012). Mathematical models / Modeling in math learning. In Norbert M. Seel (Ed.) *Encyclopedia of the Sciences of Learning*. New York: Springer.

### Refereed Conference Papers

Arnold, P., Grant, M., Chappell, S., Nunnery, J., Zaharieva, J., & Ahrenberg B. (2015, April). *Revisioning students with disabilities in the mathematics classroom: Educators' shifting constructions through implementation cooperative learning*. Paper presented at the 2015 annual meeting of the American Educational Research Association. Chicago, IL.

Chappell, S., Arnold, P., Nunnery, J., & Grant, M. (2015, April). *An examination of an online tutoring program's impact on middle school students' math achievement*. Paper presented at the 2015 annual meeting of the American Educational Research Association. Chicago, IL.

Carhart, E. Nunnery, J., Bol, L., Arnold, P., Chappell, S., Grant, M., & Morrison, G. (2013, April). *Readiness for reform in middle schools adopting PowerTeaching for mathematics instruction*. Paper presented at the 2013 annual meeting of the American Educational Research Association. Retrieved from AERA Online Paper Repository. San Francisco, CA.

Crombie, B., & Grant, M. (2012, July). *Polynomial calculus: Rethinking the role of architecture and access to advanced study*. Paper presented at the 12th International Congress on Mathematical Education (ICME-12). Seoul, South Korea.

Grant, M., Crombie, B., Cobb, N., Tuttle, J., Tridico, A., & Hassan, L. (2012, July). *Polynomial calculus: Rethinking the role of calculus in high schools*. Paper presented at the 12th International Congress on Mathematical Education (ICME-12). Seoul, South Korea.

Grant, M. (2012, April). *Productive peer culture: Algebra Project students' view*. Paper presented at the Annual Meeting American Educational Research Association. Vancouver, British Columbia, Canada.

Grant, M. (2010, October). *Examining sociocultural contexts of classrooms to foster student mathematical discourse and learning*. Paper presented at the 32<sup>nd</sup> Annual Meeting of the North American Chapter of the International Group of the Psychology of Mathematics Education. Columbus, OH.

### Other Works

Enderson, M. C., & **Grant, M. R.** (2013). Emerging engineers design a paper table. In M. Coffey & W. Sherard (Eds.), *Real world math: Activities, lesson plans, and articles for the middle grades*. Reston, VA: NCTM. [Online article with related

## Dr. Melva R. Grant

Assistant Professor of Mathematics Education  
STEM Education and Professional Studies Department

materials]. Retrieved from

<http://www.nctm.org/publications/worlds/content.aspx?id=34035>

- Grant, M.** (2010). A response at the end of Chapter 1 in A. Woolfolk, *Educational Psychology*, (11th Ed). Boston, MA: Pearson.
- Grant, M. R.** (2009). *Examining Classroom Interactions and Mathematical Discourses*. (Doctoral dissertation, The Ohio State University). Retrieved from OhioLink ETD: [http://rave.ohiolink.edu/etdc/view.cgi?acc\\_num=osu1259014641](http://rave.ohiolink.edu/etdc/view.cgi?acc_num=osu1259014641)
- Mikesell, A., Roget, B., **Grant, M.**, & Badea, D. (Eds.). (2001). *Academic Content Standards: K-12 Mathematics*. Columbus, OH: State Board of Education.

### RESEARCH AND MANUSCRIPTS IN PROGRESS:

#### Refereed Journal Articles: *In Press*

- McKinney, S., **Grant, M. R.**, & Hinton-Johnson, K. (2015 Apr). Does literature belong in the STEM equation for urban, high-poverty elementary schools? *Journal of sTEM Teacher Education*. (Awaiting proof from editor)
- Grant, M. R.**, Crompton, H., & Ford, D. J. (2015 July). Algebra Project's social justice approach influences mathematics identity development: A case study of six Black male students. *Journal of Urban Mathematics Education*.

#### Refereed Journal Articles: *Under Review*

- Chappell, S., Arnold, P., Nunnery, J., & **Grant, M.** (2015 Jun). FEV title. *Online Learning: K12 Special Issue*.
- Grant, M. R.** (2015 Jul). Sustained and Job-Embedded PD: Coached Mathematics Teachers' Perspectives. *Research in Mathematics Education*.
- Liu, Y., Enderson, M., & **Grant, M. R.** (2015 Jul). Using probability-based professional development tasks to support coaches learning. *Mathematics Teacher Education and Development*. (Authors contributed equally)
- Grant, M. R.**, Enderson, M., Cobb, N., & Crombie, B. (2015 Aug, R&R). Polynomial calculus: Rethinking the role of architecture and access to advanced mathematics study. *International Journal of Mathematical Education in Science and Technology*.
- Grant, M. R.**, Brosnan, P., & Diawara, N. (2015 Aug). Effects of a school-wide classroom-embedded coaching approach on students' mathematics achievement in grades 3-8 over 5 years. *Educational Studies in Mathematics*.

#### Refereed Journal Articles: *In Progress (i.e., revise and resubmit or new manuscript)*

- Grant, M. R.** (2015 Fall). Productive partnerships for Learning: The Case of Rayshawn & Omar. *Journal TBD*.
- Grant, M. R.** (2016 Spring). Multifaceted student-peer leadership for mathematics learning: A comparative case study. *Journal TBD*.
- Bol, L., Arnold, P., Nunnery, J., & **Grant, M.** (2016 Summer). Self- and Co-Regulation in PowerTeaching Mathematics: From Teacher to Student-Centered Instruction. Manuscript proposal for 2016 special issue in *Metacognition and Learning*.
- Ford, D. J., & **Grant, M. R.** (2016 Summer). Instructional Coaching in Mathematics Education: A Literature Review. *Journal of Mathematics Education*.

## Dr. Melva R. Grant

Assistant Professor of Mathematics Education  
STEM Education and Professional Studies Department

### TECHNICAL REPORTS:

- Nunnery, J., Bol, L., Morrison, G., Arnold, P., Chappell, S. **Grant, M.**, Perry, T., Hoag-Carhart, E., & Zaharieva, J. (2014, January). A Technology-facilitated Scale Up of a Proven Model of Mathematics Instruction in High Need Schools: Midterm Formative Evaluation Report. Norfolk, VA: The Center for Educational Partnerships.
- Nunnery, J., Bol, L., Morrison, G., Arnold, P., Chappell, S. **Grant, M.**, Perry, T., Hoag-Carhart, E., & Zaharieva, J. (2013, January). A technology-facilitated scale up of a proven model of mathematics instruction in high need schools: Midterm formative evaluation report, year 1. Norfolk, VA: The Center for Educational Partnerships.

### RESEARCH PAPERS PRESENTED AT PROFESSIONAL MEETINGS:

#### Refereed Presentations

- Grant, M.**, Hoquee, K., Frank, T., & Sanderfer, M. (2015, May). Retaining diverse faculty through meaningful and purposeful mentoring. Presentation in *2015 Virginia Network Annual State Conference*. Richmond, VA.
- Enderson, M., **Grant, M.**, & Liu, Y. (2015, Feb). Using problem solving tasks for teachers' professional learning in probability and statistics. Presentation in *the Nineteenth Annual Conference of the Association of Mathematics Teacher Educators (AMTE)*. Orlando, FL.
- Coffman, L., Willis, D., Wilke, M., & **Grant, M.** (2014, December). Reconstructing mathematics teaching: A school-wide initiative to support teacher development. Presentation in *31<sup>st</sup> Annual Conference of the Association for Constructivist Teaching (ACT)*: Charleston, SC.
- Grant, M.** (2014, November). Problem solving then and now. Presentation in *National Council of Teachers of Mathematics 2014 Regional Conference and Exposition*: Richmond, VA.
- Grant, M.** (2014, November). Planning classroom observations that culminate in critical conversations. Presentation in *National Council of Teachers of Mathematics 2014 Regional Conference and Exposition*: Richmond, VA.
- Coffman, L., & Grant, M. (2014, November). A mathematics coaching model: Creating cultural change in one school. Presentation in *National Council of Teachers of Mathematics 2014 Regional Conference and Exposition*: Richmond, VA.
- Grant, M.**, Irwin, B., Barnes, D., & Norton, A. (2014, April). NCTM and JRME as resources for leaders of professional learning. Presentation in *2014 NCSM Annual Conference*. New Orleans, LA.
- Grant, M.**, & Jernigan, A. (2014, March). Teaching through problem solving: An approach for differentiation (Middle School). Presentation in *VCTM 2014 Annual Conference*. Harrisonburg, VA.
- Jernigan, A., & **Grant, M.** (2014, March). Using Common Core resources to teach Virginia Standards of Learning. Presentation in *VCTM 2014 Annual Conference*. Harrisonburg, VA.
- Coffman, L., Willis, D., Wilke, M., & **Grant, M.** (2013, October). Reconstructing mathematics teaching: A constructivist tiered model for sustainable change.

## Dr. Melva R. Grant

Assistant Professor of Mathematics Education  
STEM Education and Professional Studies Department

- Presentation in *30<sup>th</sup> Annual Conference of the Association for Constructivist Teaching (ACT)*: New York, NY.
- Grant, M.** (2011, October). AP cohort model: A structure for transforming high school mathematics peer culture. Poster presented at *33<sup>rd</sup> Annual Meeting of the North American Chapter of the International Group of the Psychology of Mathematics Education (PME-NA)*. Reno, NV.
- Grant, M.** (2008, April). Mathematics coaching and power dynamics. Symposium presentation in *Annual Research Preession of the National Council of Teachers of Mathematics. National Council of Teachers of Mathematics*, Salt Lake City, Utah.
- Erchick, D. B., & **Grant, M.** (2007, October). Experiences for argument and proof in the middle grades. Presentation in *Annual Meeting of the Ohio Council of Teachers of Mathematics (OCTM)*. Columbus, Ohio.
- Grant, M.**, & Hughes, K. (2007, October). Mathematics Coaching Program: Working & learning with coaches. Presentation in *Annual Meeting of the Ohio Council of Teachers of Mathematics (OCTM)*. Columbus, Ohio.
- Grant, M.** (2007, October). Teachers as leaders of learners. Presentation in *Annual Meeting of the Ohio Council of Teachers of Mathematics (OCTM)*. Columbus, Ohio.
- Erchick, D., Brosnan, P., Forrest, D., Douglass, L., **Grant, M.**, & Hughes, K. (2007, April). Findings from the first year of a K-6 mathematics coaching project. Symposium presentation in *Annual Research Preession of the National Council of Teachers of Mathematics*. Atlanta, GA.

### Invited Presentations:

- Grant, M. R.** (2013, October). Problem solving: Say what. . . ? What is the real problem? Presentation in *Tidewater Council of Teachers of Mathematics (TCTM) Fall Conference*. Virginia Beach, VA.
- Grant, M. R.** (2013, October). Adapting tasks for teaching through problem solving: Grades K-5. Presentation in *Professional Development for Norfolk Public Schools' Teacher All Staff Day*. Norfolk, VA.
- Grant, M. R.** (2013, October). Adapting tasks for teaching through problem solving: Grades 6-8. Presentation in *Professional Development for Norfolk Public Schools' Teacher All Staff Day*. Norfolk, VA.
- Grant, M. R.** (2013, August). Reflecting on student engagement. Presentation in *Professional Development for Secondary New Teachers' Orientation: Newport News Public Schools*. Newport News, VA.

### GRANTS AWARDED:

- John A. Nunnery, Principal Investigator, Robert Slavin, Nancy Madden, Linda Bol, Gary R. Morrison, **Melva Grant**, Pam Arnold-Puchalski, Shanan Chappell Moots, Co-Principal Investigators. A Technology-facilitated Scale up of a Proven Model of Mathematics Instruction in High Need Schools. Sponsored by *US Department of Education: Investing in Innovation Fund (i3)*, (2011-2016) \$25,000,000.00.
- Christine Ward, Principal Investigator, Kathleen Levingston, Lauren M. Craigen, & **Melva Grant**, Co-Principal Investigators. Boosting students' mathematics achievement and promoting positive social connections for military connected families at targeted Newport News Public Schools. Sponsored by *US Department of Defense Education Activity (DODEA)*, (2011-2014) \$150,589.00.

## **Dr. Melva R. Grant**

Assistant Professor of Mathematics Education  
STEM Education and Professional Studies Department

Steve Myran, Principal Investigator, Karen Sanzo, **Melva Grant**, Sue Doviak, & Peter Baker, Co-Principal Investigators. Partnership for teaching and leading quality mathematics education. Sponsored by *No Child Left Behind Act of 2001 (NCLB Act) Title II, Part A Improving Teacher Quality State Grants. State Council of Higher Education for Virginia*, (2011-2012) \$174,746.

Lee McEwan, Principal Investigator, Heather Tanner, Co-Principal Investigator, & **Melva Grant**, Co-Principal Investigator (2009-2010)/Consultant (2011-2013). The Development of Student Cohorts for the Enhancement of Mathematical Literacy in Underserved Populations. Sponsored by *National Science Foundation: DRK12 Award 0822175*, (2008-2014). Funded as a Sub-award to The Ohio State University-Mansfield.

### **GRANTS APPLIED FOR:**

Jin Wang, Principal Investigator, Gene Hou, Ravindra, Joshi, Miltiadis Kotinis, Todd Fantz, Melva Grant, & Vishnu Lakdawala, Co-Principal Investigators, *Renewable Energy Education through Wave Energy Research*. Sponsored by Dominion Higher Education Partnership Grant, \$40,000. Not funded. (Dec 2011).

### **MEMBERSHIPS IN PROFESSIONAL SOCIETIES:**

American Educational Research Association (AERA). (April 2007 - Present).  
Association of Mathematics Teacher Educators (AMTE). (April 2007 - Present).  
Association of Constructivist Teaching (ACT). (August 2013 - Present).  
National Council of Teachers of Mathematics (NCTM). (September 1997 - Present).  
Appointed to JRME Editorial Panel (2013-2016).  
NCSM - Leadership in Mathematics Education. (2005 - Present).  
North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA). (August 2009 - Present).  
Tidewater Council of Teachers of Mathematics (TCTM). (September 2010 - Present).  
Virginia Council of Teachers of Mathematics (VCTM). (September 2010 - Present).

### **UNIVERSITY SERVICE:**

Chaired Faculty Search Committees 2011, 2012  
Graduate Program Coordinator, Mathematics Specialist Programs (January 2011-January 2014)  
Graduate Program Leader, Secondary Mathematics Education (January 2011-August 2013)  
Faculty Search Committee Member 2010  
Committee Member, STEM Ed & PS Graduate Faculty. (August 2011 - Present).  
Committee Member, Diversity and Equity Committee. (August 2011 – May 2015).  
Committee Member, FG-Evaluation Committee (2011 - 2013)

### **PROFESSIONAL SERVICE**

Member of Constitution and Bylaws Committee, Association of Mathematics Teacher Educators (AMTE). Appointed by AMTE President (2014-2017).  
Executive Board Member, Virginia Council of Teachers of Mathematics (VCTM).  
Elected by membership as Four-Year College Representative (September 2014 – August 2016)

## **Dr. Melva R. Grant**

Assistant Professor of Mathematics Education  
STEM Education and Professional Studies Department

Editorial Panel Member, Journal of Research in Mathematics Education (JRME). The flagship research journal for National Council of Teachers of Mathematics (NCTM), Reston, VA. Appointed by NCTM President (May 2013 - April 2016).

Executive Board Member, Tidewater Council of Teachers of Mathematics (TCTM). Appointed by president as Four-Year College Representative (September 2013 - Present)

Journal Reviewer, Mathematics Thinking and Learning 2012-2014

Reviewer, Conference Papers, PME-NA Proposal Annual Conference 2010, 2011, 2013

Journal Reviewer, Mathematics Teacher Educator 2013

Journal Reviewer, Mathematics Teaching in the Middle School 2011-2013

Reviewer, Conference Papers, American Educational Research Association Annual Meeting 2008, 2009, 2010

Journal Reviewer, Teaching Children Mathematics 2009-2010

Reviewer, Conference Paper, Association of Mathematics Teacher Educators Annual Meeting 2009, 2010.

Member, University Senate graduate student representative, Ohio State University. (2008 - 2009)

Member, Graduate student representative on the Graduate Studies Committee of the School of Teaching and Learning (2007 - 2009)

Member, Council of Graduate Students (CGS) School of Teaching and Learning (2006 - 2009)

### **Community Service**

Community representative, Strategic Planning Committee for Azalea Gardens Middle School, Norfolk Public Schools, Norfolk, VA. (October 2014).

Virginia Beach Public Schools STEM Robotics Competition, ODU Interdisciplinary Support Team 2013

Provided professional development for K-8 mathematics teachers during Norfolk Public Schools All Staff Days, 2011, 2012

Norfolk Public Schools Science Fair Judge, 2011, 2013

Keynote Address, New Secondary Teacher Orientation, Columbus City Schools, Columbus, OH (2009)