**VITA**

**Evan D. McClintock**

Senior Instructor

University of Colorado Denver

School of Education & Human Development

**EDUCATION**

**Institution Degree Date Received Major**

New York University Ph.D. (ABD) 08/2010 Teaching & Learning: Mathematics Education

The Pennsylvania State University Curriculum & Instruction:

 Mathematics Education

Bucknell University Educational Research

The Pennsylvania State University B.S. 05/1995 Elementary Education

**Certificates**

Commonwealth of PA Certificate 05/1995 Instructional I Certificate,

 Elementary Education

Commonwealth of PA Certificate 06/2001 Instructional II Certificate, Elementary Education

**PROFESSIONAL EXPERIENCE**

**Dates Position**

10/2013 - Present Senior Instructor: Alternative Licensure – Mathematics Lead

School of Education and Human Development

 University of Colorado Denver

08/2010 - 10/2013 Instructor and Research Assistant: Mathematics Education

School of Education and Human Development

 University of Colorado Denver

08/2007 – 6/2009 Instructor and Research Assistant: Mathematics Education

 Steinhardt School of Education and Human Development

 New York University

08/2004 - 06/2007 Mid-Atlantic Center Mathematics Education Graduate Research Fellow

College of Education

 The Pennsylvania State University

08/2003 - 08/2004 Graduate Assistant: Curriculum & Instruction Mathematics Education

 College of Education

 The Pennsylvania State University

09/2001 - 08/2003 University Relations Officer

 Bucknell University

08/1995 - 08/2001 Elementary Classroom Teacher

Ferguson Township Elementary, State College Area School District

 State College, PA

**SELECTED PUBLICATIONS**

*REFEREED JOURNAL ARTICLES*

2019 Johnson, H. L., Dunlap, J. C., Verma, G., **McClintock, E.**, DeBay, D. J., & Bourdeaux, B. (2019). Video-based teaching playgrounds: Designing online learning opportunities to foster professional noticing of teaching practices. *Techtrends, 63,* 160-169. https://link.springer.com/article/10.1007/s11528-018-0286-5

2018 Johnson, H. L. & **McClintock, E.** (2018). A link between students’ discernment of

variation in unidirectional change and their use of quantitative variational reasoning. *Educational Studies in Mathematics, 97,* 299-316*.* doi.org/10.1007/s10649-017-9799-7

2017 Johnson, H. L., **McClintock, E.**, & Hornbein, P. (2017). Ferris wheels and filling bottles: A case of a student’s transfer of covariational reasoning across tasks with different backgrounds and features. *ZDM: The International Journal on Mathematics Education, 49*(6), 851-864. doi.org/10.1007/s11858-017-0866-4

2013 Tzur, R., Johnson, H. L., **McClintock, E.**, Xin, Y. P., Si, L., Woodward, J., Hord, C., & Jin, X. (2013). Distinguishing schemes and tasks in children's development of multiplicative reasoning. *PNA, 7*(3), 85-101.

2010 Simon, M. A., Saldanha, L., **McClintock, E.**, Akar, G. K., Watanabe, T., & Zembat, I. O. (2010). A developing approach to studying mathematical conceptual learning: Focusing on students’ learning through their mathematical activity. *Cognition and Instruction 28*(1), pp. 70-112.

*REFEREED CONFERENCE PROCEEDINGS*

2018 Johnson, H. L., **McClintock, E.**, Gardner, A. (2018). Promoting secondary students’ shifts to covariational reasoning: Networking theories and task design.

 *To appear in the Proceedings of the 42nd Annual Conference of the International Group for the Psychology of Mathematics Education*. Umeå, Sweden: PME.

Johnson, H. L., **McClintock, E.**, Kalir, R., & Olson, G. (2018). Networking theories to design dynamic covariation techtivities for college algebra students. *To appear in the Proceedings of the 21st Meeting of the MAA Special Interest Group on Research in Undergraduate Mathematics Education*. San Diego, CA: RUME.

2017 Johnson, H. L., **McClintock, E**., Hornbein, P., Gardner, A., & Grieser, D. (2017). When a critical aspect is a conception: Using multiple theories to design dynamic computer environments and tasks to foster students’ discernment of covariation. *10th Congress of European Research in Mathematics Education, Dublin, Ireland*: DCU Institute of Education and ERME.

2015 Verma, G., Johnson, H., Dunlap, J., & **McClintock, E.** (2015). Fully online methods courses? Reconceptualizing STEM teacher preparation through spaces of learning.  In Chandresekharan, S., Murthy, S., Banerjee, G., Muralidhar, A. (Eds.). Proceedings of epiSTEME 6—Emerging Computational Media and Science Education (pp. 372-380), Cinnamon Teal Publishing, Mumbai, India.

2014 Hodkowski, N., Tzur, R., Johnson, H. L., **McClintock, E.** (2014, July). Relating student outcomes to teacher development of student-adaptive pedagogy. In Oesterle, S., Liljedahl, P., Nicol, C., & Allan, D. (Eds.). (2014). *Proceedings of the 38th Conference of the International Group for the Psychology of Mathematics Education and the 36th Conference of the North American Chapter of the Psychology of Mathematics Education* (Vol. 3, pp. 321-328). Vancouver, Canada: PME.

2013 Johnson, H. L., **McClintock, E.**, & Ahmed J. (2013, November). Coordinating representations of covarying quantities: Linking dynamic graphs & filling area animations. In M. Martinez & A. Castro Superfine (Eds.) *Proceedings of the 35th Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education* (p. 323)*.* Chicago, IL: University of Illinois at Chicago.

2012 Tzur, R., Johnson, H. L., **McClintock, E.**, & Risley, R. (2012, November). Culturally-mathematically relevant pedagogy (CMRP): Fostering urban English language learners’ multiplicative reasoning. In L. R. Van Zoest, J. J. Lo, & J. L. Kratky (Eds.), *Proceedings of the 34th Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 829-836). Kalamazoo, MI: Western Michigan University.

 Tzur, R., Johnson, H., **McClintock, E.**, Xin, Y. P., Si, L., Kenney, R., et al. (2012, July). Children's development of multiplicative reasoning: A schemes and tasks framework. In T.-Y. Tso (Ed.), *Proceedings of the 36th Conference of the International Group for the Psychology of Mathematics Education* (Vol. 4, pp. 155-162). Taipei, Taiwan: National Taiwan Normal University.

*REFEREED BOOK CHAPTERS*

2015 **McClintock, E.**, Peters, S., Kinol, D., Reed, S., Johnson, H., Tillema, E., Zbiek, R. M., Heid, M. K., Donaldson, S., Murray, E., & Blume, G. (2015). Similarity: Situation 32 from the MACMTL-CPTM situations project. In M. K. Heid, P. S. Wilson, with G. W. Blume (Eds.), *Mathematical understanding for secondary teaching: A framework and classroom-based situations* (pp. 343-350). Charlotte, NC: Information Age Publishing.

 Findell, B., **McClintock, E.**, Blume, G., Fox, R., Zbiek, R. M., Gleason, B. (2015). Division involving zero: Situation 1 from the MACMTL-CPTM situations project. In M. K. Heid, P. S. Wilson, with G. W. Blume (Eds.), *Mathematical understanding for secondary teaching: A framework and classroom-based situations* (pp. 95-101). Charlotte, NC: Information Age Publishing.

Hembree, D., Tillema, E., **McClintock, E.**, Zbiek, R. M., Johnson, H., Wilson, P., Wilson, J., & Fox, R. (2015). Simultaneous equations: Situation 18 from the MACMTL-CPTM situations project. In M. K. Heid, P. S. Wilson & G. W. Blume (Eds.), *Mathematical understanding for secondary teaching: A framework and classroom-based situations* (pp. 229-237). Charlotte, NC: Information Age Publishing.

Johnson, H., Karunakaran, S., Fox, R., & **McClintock, E.** (2015). Square root of *i*: Situation 9 from the MACMTL-CPTM situations project. In M. K. Heid, P. S. Wilson, with G. W. Blume (Eds.), *Mathematical understanding for secondary teaching: A framework and classroom-based situations* (pp. 171-177). Charlotte, NC: Information Age Publishing.

Johnson, H., Karunakaran, S., **McClintock, E.**, Nazarewicz, P., Jacobson, E., & Edenfield, K. (2015). Absolute value in complex plane: Situation 7 from the MACMTL-CPTM situations project. In M. K. Heid, P. S. Wilson, with G. W. Blume (Eds.), *Mathematical understanding for secondary teaching: A framework and classroom-based situations* (pp. 155-161). Charlotte, NC: Information Age Publishing.

Johnson, H., **McClintock, E.**, Zbiek, R. M., Gleason, B., Broderick, S., & Wilson J. (2015). Graphing sin(2x): Situation 36 from the MACMTL-CPTM situations project. In M. In M. K. Heid, P. S. Wilson, with G. W. Blume (Eds.), *Mathematical understanding for secondary teaching: A framework and classroom-based situations* (pp. 385-389). Charlotte, NC: Information Age Publishing.

Johnson, H., Reed, S., **McClintock, E.**, Jacobson, E., & Edenfield, K. (2015). The product rule for differentiation: Situation 42 from the MACMTL-CPTM situations project. In M. K. Heid, P. S. Wilson, with G. W. Blume (Eds.), *Mathematical understanding for secondary teaching: A framework and classroom-based situations* (pp. 425-431). Charlotte, NC: Information Age Publishing.

Peters, S., **McClintock, E.**, Kinol, D., Grady, M., Johnson, H., Konnova, S., & Heid, M. K. (2015). Least squares regression: Situation 41 from the MACMTL-CPTM situations project. In M. K. Heid, P. S. Wilson, with G. W. Blume (Eds.), *Mathematical understanding for secondary teaching: A framework and classroom-based situations* (pp. 421-424). Charlotte, NC: Information Age Publishing.

 Peters, S., **McClintock, E.**, Kinol, D., Karunakaran, S., Zbiek, R. M., Heid, M. K.,

Singletary, L., & Donaldson, S. (2015). Mean and median: Situation 38 from the MACMTL-CPTM situations project. In M. K. Heid, P. S. Wilson, with G. W. Blume (Eds.), *Mathematical understanding for secondary teaching: A framework and classroom-based situations* (pp. 397-404). Charlotte, NC: Information Age Publishing.

Reed, S., Conner, A. M., Fox, R., Karunakaran, S., Heid, M. K., **McClintock, E.**, Johnson, H., Edenfield, K., Kilpatrick, J., & Gold, E. (2015). Summing the natural numbers: Situation 4 from the MACMTL-CPTM situations project. In M. K. Heid, P. S. Wilson, with G. W. Blume (Eds.), *Mathematical understanding for secondary teaching: A framework and classroom-based situations* (pp. 121-133). Charlotte, NC: Information Age Publishing.

Tillema, E., **McClintock, E.**, Heid, M. K., & Johnson, H. (2015). Properties of *i* and other complex numbers: Situation 8 from the MACMTL-CPTM situations project. In M. K. Heid, P. S. Wilson, with G. W. Blume (Eds.), *Mathematical understanding for secondary teaching: A framework and classroom-based situations* (pp. 171-177). Charlotte, NC: Information Age Publishing.

Wilson, P., Johnson, H., Shimizu, J., **McClintock, E.**, Zbiek, R. M., Heid, M. K., Grady, M., & Konnova, S. (2015). Calculation of sine: Situation 35 from the MACMTL-CPTM situations project. In M. K. Heid, P. S. Wilson, with G. W. Blume (Eds.), *Mathematical understanding for secondary teaching: A framework and classroom-based situations* (pp. 377-384). Charlotte, NC: Information Age Publishing.

Zbiek, R. M., Heid, M. K., Fox, R., Edenfield, K., Kilpatrick, J., **McClintock, E.**, Johnson, H., & Gleason, B. (2015). Inverse trigonometric functions: Situation 16 from the MACMTL-CPTM situations project. In M. K. Heid, P. S. Wilson, with G. W. Blume (Eds.), *Mathematical understanding for secondary teaching: A framework and classroom-based situations* (pp. 217-222). Charlotte, NC: Information Age Publishing.

**PEER REVIEWED PRESENTATIONS AT MEETINGS/CONFERENCES**

2019 Johnson, H. L., **McClintock, E.**, & Gardner, A. (2019). Leveraging difference to promote students’ conceptions of graphs as representing relationships between quantities. *11th Congress of European Research in Mathematics Education,* Utrecht, Netherlands.

 Johnson, H. L., **McClintock, E.**, & Gardner, A. (2019). Locally integrating theories to investigate students’ transfer of mathematical reasoning. *11th Congress of European Research in Mathematics Education,* Utrecht, Netherlands.

2018 Johnson, H. L., **McClintock, E**., Kalir, J., & Olson, G. (2018, February). Networking theories to design covariation techtivities for college algebra students. *Conference on Research in Undergraduate Mathematics Education,* San Diego, CA.

2017 Johnson, H. L., **McClintock, E**., Hornbein, P., Gardner, A., & Grieser, D. (2017, February). When a critical aspect is a conception: Using multiple theories to design dynamic computer environments and tasks to foster students’ discernment of covariation. *10th Congress of European Research in Mathematics Education,* Dublin, Ireland.

2016 Johnson, H. L., **McClintock, E.**, & Hornbein, P. (2016, April). Ferris wheels and filling bottles: Investigating a student’s transfer. *National Council of Teachers of Mathematics’ Annual Research Meeting*, San Francisco, CA.

2015 **McClintock, E.** (2015, September). Common Core Math: Activities that support students’ development of key early number knowledge, skill, and understanding. *Association for Supervision and Curriculum Development: Four Corners Regional Conference*, Farmington, NM.

2013 Johnson, H. L., **McClintock, E.**, & Ahmed J. (2013, September). Supporting students’ quantitative & covariational reasoning: Designing & implementing tasks linking dynamic animations and graphs. *The 4th Realistic Mathematics Education Conference.* Boulder, CO.

1997 Dana, N. F., Dobash L., Myers, J., Pirrone, J., **McClintock, E.**, Fueyo, J. (1997, January). Actualizing the professional development school at the elementary and senior high levels: Promises, possibilities, and pitfalls. Poster presentation at the Holmes Partnership Meeting, St. Louis, MO.

**SEMINARS & WORKSHOPS PRESENTED**

2019 McClintock, E. (2019, May). Task selection to support students’ emerging fraction knowledge. CU Denver, Denver, CO. (Half-day)

2013-Present Seminars for alternative licensure teachers (2013-Present). On-going, monthly face-to-face, hybrid, and online sessions that support elementary, secondary, and special education teachers’ development in topics such as: Instructional Design for All Learners, High Leverage Practices, Assessment, Unit Planning, Relationship-Driven Classrooms, Culturally Responsive Pedagogy, and Literacy Instruction.

2012 Tzur, R., Johnson, H. L., **McClintock, E.**, Risley, R., & King, K. (2012, January). Multiplicative reasoning for elementary teachers, part 2. Goldrick Elementary School, Denver, CO. (Half-day)

2011 Tzur, R., Johnson, H. L., **McClintock, E.**, Risley, R., & King, K. (2011, November). Multiplicative reasoning for elementary teachers, part 1. Goldrick Elementary School, Denver, CO. (Half-day)

Tzur, R., Johnson, H. L., **McClintock, E.**, Risley, R., & King, K. (2011, November). Early number concepts for elementary teachers. Goldrick Elementary School, Denver, CO. (Half-day)

Tzur, R., Johnson, H. L., **McClintock, E.**, Risley, R., & King, K. (2011, September). Place value, base ten concepts for elementary teachers. Goldrick Elementary School, Denver, CO. (Half-day)

 Tzur, R., Johnson, H. L., **McClintock, E.**, Risley, R., & King, K. (2011, August). Mathematics for elementary teachers: ECE-K, 1-2, and 3-4-5 grade bands. Goldrick Elementary School, Denver, CO. (Three half-days)

2006 Godine, H., & **McClintock, E.** (2006, July). K-6 grade-band. *Rural Academy for Mathematics Teachers*, Shippensburg, PA. (Two days)

**PUBLICATIONS/CREATIVE WORKS IN PREPARATION**

 *REFEREED JOURNAL ARTICLES*

In preparation Johnson, H. L., **McClintock, E.**, & Gardner, A. (under review). Opening possibilities: An approach for investigating students’ transfer of mathematical reasoning.

 Johnson, H. L., **McClintock, E.**, & Gardner, A. (under review). Designing digital task sequences to promote to promote students’ conceptions of graphs as representing relationships between quantities. Digital Experiences in Mathematics Education.

 **McClintock, E.**, Kantor, J., Stickney, D., Fox, J., & Arnold, S. (in preparation). CU

Denver’s ASPIRE to Teach program effectiveness study.

**GRANTS RECEIVED**

2018 CU Denver, Non-Tenure-Track Faculty Development Grant, $500

**OTHER GRANT APPLICATIONS**

2018 SEHD, Faculty Development Grant

2019 CU Denver, Faculty Development Grant

**PROFESSIONAL ORGANIZATIONS**

2001 - Present: National Council of Teachers of Mathematics

2014 - Present: International Group for the Psychology of Mathematics Education

2016 - Present: European Society for Research in Mathematics Education

**COURSES TAUGHT**

*FACE TO FACE*

|  |  |  |  |
| --- | --- | --- | --- |
| **Course** | **Level** | **Department** | **Institution** |
| Curriculum Experiences in Elementary Mathematics I: Numbers and Operations, E12.2115 | Graduate | Steinhardt School of Culture, Education, and Human Development | New York University |
| Teaching Elementary Mathematics I, UEDU 5002/4002 | Graduate/Undergraduate | School of Education and Human Development | University of Colorado Denver |
| Teaching Elementary Mathematics II, UEDU 5003/4003 | Graduate/Undergraduate | School of Education and Human Development | University of Colorado Denver |
| Teaching Mathematics in the Elementary Schools, MTHED 420 | Undergraduate | College of Education | The Pennsylvania State University |

*HYBRID*

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| **Course** | **Level** | **Department** | **Institution** |
| STEM Capstone: Secondary Education, UEDU 4051/5051 | Graduate/Undergraduate | School of Education and Human Development | University of Colorado Denver |
| Mathematics for Elementary Teachers, UEDU 5400/MATH 3040 | Graduate/Undergraduate | School of Education and Human Development | University of Colorado Denver |
| Introduction to Research: Educational Research Methods,RSEM 5120 | Graduate | School of Education and Human Development | University of Colorado Denver |

*ONLINE*

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| --- | --- | --- | --- |
| **Course** | **Level** | **Department** | **Institution** |
| Geometrical Ways of Reasoning Underlying K-12 Common Core Standards, MTED 5623 | Graduate | School of Education and Human Development | University of Colorado Denver |
| Introduction to Research: Educational Research Methods,RSEM 5120 | Graduate | School of Education and Human Development | University of Colorado Denver |
| Research in Schools,RSEM 5080 | Graduate | School of Education and Human Development | University of Colorado Denver |

**PROFESSIONAL SERVICE**

*PEER REVIEWING*

**Journal Articles**

2009-Present *Journal for Research in Mathematics Education*, National Council of Teachers of

Mathematics.

2018-Present *Mathematical Teaching and Learning, An International Journal*, Taylor Francis.

**Conference Proposals**

2018 Eleventh Congress of the European Society of Research in Mathematics Education (CERME 11), Utrecht, Netherlands

2007 & 2008 Psychology of Mathematics Education, North America (PME-NA)

**Other Proposals**

2006 National Science Foundation, Preliminary Proposals for Discovery Research K-12

2005 & 2006 Pennsylvania Council of Teachers of Mathematics Yearbooks

*COMMITTEE MEMBERSHIP*

11/2016 Elementary Math Specialist Endorsement Committee, Colorado Department of Education

*CONSULTING*

7/2014 Mathematics Course Consultant. HOPE Online Learning Academy, Douglas County Public Schools, Englewood, CO.