

**Curriculum Vita**  
**2023**

**Barbrina B. Ertle, Ed.D.**

**WORK ADDRESS:**

Adelphi University  
College of Education & Health Sciences  
Garden City, NY 11530-0701  
Telephone: 516-877-4064  
E-mail: [bertle@adelphi.edu](mailto:bertle@adelphi.edu)

**HOME ADDRESS:**

111 Farmers Ave.  
Lindenhurst, NY 11757  
Telephone: (home) 631-888-0309  
(cell) 631-553-4540  
E-mail: [ertle.bb@gmail.com](mailto:ertle.bb@gmail.com)

**EDUCATION:**

Ed.D. Cognitive Studies, 2006                      Columbia University/Teachers College, NYC, NY  
– Concentrations: Mathematics, Early Childhood  
– Dissertation: “Which manipulative should I choose?” A cross-cultural comparison of  
manipulative evaluation focusing on the case of equivalent fractions  
M.A. Teaching, 1999                                  Johns Hopkins University, Baltimore, MD  
– Concentration: Elementary Education  
B.S. Marine Science, 1990                          Long Island University, Southampton, NY  
– Concentration: Biology, Summa Cum Laude

**CERTIFICATIONS**

Maryland State Elementary Teaching initial certificate (grades 1-8) - *expired*

**PROFESSIONAL EXPERIENCE - ACADEMIC:**

Full Time – September 2023 to present  
Program Director – Early Childhood & Early Childhood Special Education, Adelphi University, School of  
Education, Garden City, NY  
Full Time – September 2017 to present.  
Associate Professor, Adelphi University, School of Education, Garden City, NY  
Full Time – September 2011 to August 2017.  
Assistant Professor, Adelphi University, School of Education, Garden City, NY  
Full Time - August 2009 to August 2011.  
Visiting Assistant Professor, Adelphi University, School of Education, Garden City, NY  
– Teach Graduate Courses in Early Childhood, Early Childhood Special Education, Childhood and  
Childhood Special Education Programs, namely math methods, science methods, and other  
educational/ development courses.  
Full Time - June 2006 to June 2007.  
Research Associate, Columbia University/Teachers College, NYC, NY  
– Project manager of IES Grant study, conducting research with early childhood mathematics  
education, including curriculum evaluation, measure and coding development, and  
professional development.

**PROFESSIONAL EXPERIENCE – NON-ACADEMIC:**

Part Time – September 2018 to present

Network Affiliate, Development and Research in Early Math Education (DREME), Stanford, CA

- Development of activities and materials for early childhood mathematics learning
- Review and consult on other developed activities and materials

Part Time – May 2012 to June 2016.

Educational Consultant, Vanderbilt University, Abu Dhabi, U.A.E.

- Development of scope and sequence for mathematics curriculum, and development of supplementary curriculum materials.
- Development and presentation of mathematics and science professional development workshops for early childhood and elementary teachers in Abu Dhabi.
- Development of assessment materials for early childhood teachers in Abu Dhabi.

Part Time - December 2008 to December 2010.

Research Consultant, NYC Dept. of Education, NYC, NY

- Lead the development of research design and measures to help network of schools examine their practice with Assessment for Learning.
- Consultation in implementing research design, collecting and analyzing data, and synthesizing results.

Part Time - September 2007 to January 2011.

Educational Consultant, New Jersey Network, Trenton, NJ

- Development of online program for parents and preschoolers to learn foundation math concepts. <http://www.njn.net/education/parents/bringinghomethemath/> (no longer available)
- One video module nominated for a 2011 Mid-Atlantic Emmy.
- Presentation of *Big Math for Little Kids* professional development workshops to preschool special education teachers.
- Development of online modules for support of teachers implementing *Big Math for Little Kids* early childhood mathematics curriculum.  
<http://www.njn.net/education/teachers/bigmathforlittlekids> (no longer available)

Part Time - September 2006 to June 2007.

Educational Consultant, Wireless Generation (now Amplify Education), Brooklyn, NY

- Development and presentation of early childhood/early elementary mathematics professional development workshops for state of Texas.

Part Time – September 2000 to May 2006

Graduate Research Assistant, Columbia University/Teachers College, NYC, NY

- Conducted research with early childhood mathematics education, including curriculum evaluation, measure and coding development.
- Supported teachers' implementation of *Big Math for Little Kids* early childhood mathematics curriculum through material development, and workshop development and presentation.
- Supported Japanese Lesson Study initiatives throughout U.S., including area schools and districts, through curriculum development, material and workshop development and presentation, schedule development and coordination, and small group consultation and facilitation. <http://www.tc.columbia.edu/lessonstudy> [Resources: Tools for Conducting Lesson Study]

Full Time – September 1999 to June 2000

6<sup>th</sup> Grade Teacher, Clarksville Middle School, Clarksville, MD

- Courses: Earth Science, Reading

Part Time – September 1997 to June 2000

Curriculum Writer, Pride of Baltimore, Inc., Baltimore, MD

- Member of team developing Internet-based curriculum paralleling voyages of *Pride of Baltimore II* incorporating MSPAP (Maryland School Performance Assessment Program) Outcomes.
- Developed lessons on weather, navigation, Baltimore during the War of 1812, dangers at sea, and shipbuilding on the Chesapeake. <http://www.pride2.org/NewPrideSite/Pride2/P2Schools.html> [Maryland with Pride lessons 10, 15, 20; Asia with Pride lessons 6, 10] (no longer available)

Full Time – September 1990 to May 1998

Maritime Educator and Sail Trainer, (Various Traditional Sailing Ships)

- Taught maritime history and traditional shipboard skills to elementary through adult groups.
- Developed shipboard educational lessons that integrated building discipline, self esteem, and critical thinking skills with maritime skills.
- Maintained and sailed ships, and served as watch officer responsible for safe navigation of vessel and leadership of crew.

Part Time – June 1987 to June 1990

Lab Technician, Brookhaven National Laboratories, Upton, NY

- Participated in zooplankton research.
- Conducted field collection, microscopic analyses, and data analyses.

## **PUBLICATIONS AND PRESENTATIONS:**

### **REFEREED BOOK CHAPTERS**

Ginsburg, H. P., & Ertle, B. B. (2016). Giving away early mathematics: *Big Math for Little Kids* encounters the complex world of early education. In K. Durkin & R. Schaffer (Eds.), *Wiley Handbook of Developmental Psychology in Practice: Implementation and Impact* (pp. 222-263). Chichester, UK: John Wiley & Sons, Ltd.

Ginsburg, H. P., & Ertle, B. (2008). Knowing the mathematics in early childhood mathematics. In O. N. Saracho & B. Spodek (Eds.), *Contemporary Perspectives on Mathematics in Early Childhood Education* (pp. 45-66). Charlotte, NC: Information Age Publishing.

### **NON-REFEREED BOOK CHAPTERS**

Ginsburg, H. P., Ertle, B., & Lewis-Presser, A. (2013). Math curriculum and instruction for young children. In V. Buysse & E. Peisner-Feinberg (Eds.) *Handbook of Response to Intervention (RTI) in Early Childhood* (pp. 251-264). Baltimore, MD: Paul H. Brookes Publishing Co.

Ginsburg, H. P., Duch, H., Ertle, B. & Noble, K. G. (2012). How can parents help their children learn math? In B. H. Wasik (Ed.), *Handbook of Family Literacy, Second Edition* (pp. 51-65). New York, NY: Routledge.

Brenneman, K., Boller, K., Atkins-Burnett, S., Stipek, D., Forry, N. D., Ertle, B. B., French, L., Ginsburg, H. P., Frede, E., & Schultz, T. (2011). Measuring the quality of early childhood math and science curricula and teaching. In M. Zaslow, I. Martinez-Beck, K. Tout, & T. Halle (Eds.), *Quality Measurement in Early Childhood Settings* (pp. 77-103). Baltimore, MD: Paul H. Brookes Publishing Co.

Ertle, B. B., Ginsburg, H. P., Cordero, M. I., Curran, T. M., Manlapig, L., & Morgenlander, M. (2008). The essence of early childhood mathematics education and the professional development needed to support it. In A. Dowker (Ed.), *Mathematical Difficulties: Psychology, Neuroscience and Interventions* (pp. 59-83). Amsterdam, The Netherlands: Elsevier.

### **REFEREED JOURNAL ARTICLES**

Ertle, B. (2017). Using mathematical analyses activities to improve manipulative discrimination in early childhood teacher education. *Journal of Early Childhood Education*, 38(2), 136-149.

- Ertle, B., Rosenfeld, D., Lewis-Presser, A.E., & Goldstein, M. (2016). Preparing preschool teachers to use and benefit from formative assessment: The Birthday Party Assessment Professional Development System. *ZDM Mathematics Education*. doi:10.1007/s11858-016-0785-9
- Lewis-Presser, A., Clements, M., Ginsburg, H., & Ertle, B. (2015). *Big Math for Little Kids: The effectiveness of a preschool and kindergarten mathematics curriculum*. *Early Education and Development*, 26(3), 399-426.

#### REFEREED PRESENTATIONS: NATIONAL

- Ertle, B. (April 2008). "How did you get that answer?": *How to analyze children's mathematical thinking*. National Council of Teachers of Mathematics (NCTM) Annual Meeting, Salt Lake City, UT.
- Ertle, B. (April 2008). *I didn't know they knew that! Using formative assessment to promote children's early math development*. National Council of Supervisors of Mathematics (NCSM) Annual Meeting, Salt Lake City, UT.
- Ertle, B. (April 2008). "How did you get that answer?": *Building teachers' capacity to analyze children's mathematical thinking*. National Council of Supervisors of Mathematics (NCSM) Annual Meeting, Salt Lake City, UT.
- Ertle, B. B., Ginsburg, H. P., Curran, T. M., & Cordero, M. I. (2007). A professional development model for promoting effective mathematics instruction in the early childhood classroom. Paper presented at the National Association for the Education of Young Children 16<sup>th</sup> National Institute for Early Childhood Professional Development, Pittsburgh, June 12, 2007.
- Ertle, B., Ginsburg, H. P., & Lewis, A. E. (2006). Measuring the efficacy of *Big Math for Little Kids: A look at fidelity of implementation*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, April 9, 2006.

#### REFEREED PRESENTATIONS: STATE

- Ertle, B. & Minicozzi, L. (October 2013). *Pre-Service Teachers' Perceptions of the Knowledge-Base Needed for Early Childhood Special Education*. New York State Council for Exceptional Children (NYSCEC) Annual Conference, Melville, NY.
- Ertle, B. & Minicozzi, L. (April 2013). *Pre-Service Teachers' Perceptions of the Knowledge-Base Needed for Early Childhood Education*. New York State Association for the Education of Young Children (NYSAEYC) Annual Conference, Verona, NY.

#### INVITED PRESENTATIONS

- Ertle, B. & Minicozzi, L. (January 2014). *The Perceptions and Realities of Early Childhood Education*. The Children's School for Early Development, Hawthorne, NY.
- Ertle, B. (November 2010). *Promoting Mathematical Literacy in Young Children* Middle Country Library Foundation, Distinguished Speakers Series, Centereach, NY.
- Ertle, B. & Stevenson Boyd, J. (November 2007). *The development of children's mathematical thinking: What it looks like in the classroom*. Observing and Assessing the Preschool Learner, Teachers College, NY.
- Stevenson Boyd, J. & Ertle, B. (November 2007). *Assessment of children's mathematical thinking: Using observation, tasks, and interviewing to assess children's mathematical thinking*. Observing and Assessing the Preschool Learner, Teachers College, NY.
- Ertle, B. (April 2007). *Children's mathematical thinking*. Texas Math Teks Connections Workshops, San Antonio, TX.
- Ertle, B. (December 2006). *Assessment of children's mathematical thinking*. Texas Math Teks Connections Workshops, Austin, TX.

SELECT OTHER CREATIVE PROJECTS

- Ertle, B. (undergoing final web editing). Make a shape game: Shapes & Spatial Relations Games & Play. *Development and Research in Early Mathematics Education*
- Ertle, B. (undergoing final web editing). Matching shapes game: Shapes & Spatial Relations Games & Play. *Development and Research in Early Mathematics Education*
- Ertle, B. (2023). Matching cups: Numbers & Counting Games & Play. *Development and Research in Early Mathematics Education*. <https://familymath.stanford.edu/activity/matching-cups/>
- Ertle, B. (2023). Tips and activities to support children's shape knowledge. *Development and Research in Early Mathematics Education*. <https://familymath.stanford.edu/wp-content/uploads/2023/12/Shape-Tips-and-Activities-by-Barbrina-Ertle.pdf>
- Ertle, B. (2022, March 1). 8 tips for learning to count groups of things. *Development and Research in Early Mathematics Education*. <https://dreme.stanford.edu/news/8-tips-for-learning-to-count-groups-of-things/>
- Ertle, B. (2021). *Tips and activities to support children's number knowledge*. Unpublished manuscript.
- Ertle, B. (2021). *Tips and activities to support children's pattern knowledge*. Unpublished manuscript.
- Ertle, B. (2021). *Tips and activities to support children's measurement knowledge*. Unpublished manuscript.
- Ertle, B. (2020). *Math picture book activity guide: Now What? A Math Tale, by Robie H. Harris*. Unpublished manuscript.
- Ertle, B. (2020). *Math picture book activity guide: Pattern Fish, by Trudy Harris*. Unpublished manuscript.
- Ertle, B. (2020). *Math picture book activity guide: Eric Carle's 123*. Unpublished manuscript.
- Ertle, B. (2020). *Math picture book activity guide: 12 Ways to Get to 11, by Eve Merriam*. Unpublished manuscript.
- Ertle, B. (2020). *Math picture book activity guide: The Shape of Things, by Dayle Ann Dodds*. Unpublished manuscript.
- Ertle, B. (2019, May 3). 3 storybook activities to deepen math understanding. *Development and Research in Early Mathematics Education*. <https://dreme.stanford.edu/news/3-storybook-activities-to-deepen-math-understanding/>
- Ertle, B. (2019). *Math picture book activity guide: Let's Count, by La Coccinella*. [https://dreme.stanford.edu/wp-content/uploads/2023/05/lets\\_count\\_activity.pdf](https://dreme.stanford.edu/wp-content/uploads/2023/05/lets_count_activity.pdf)
  - Ertle, B. (2019). *Math picture book activity guide: Mouse Shapes, by Ellen Stoll Walsh*. [https://dreme.stanford.edu/wp-content/uploads/2023/05/mouse\\_shapes\\_activity.pdf](https://dreme.stanford.edu/wp-content/uploads/2023/05/mouse_shapes_activity.pdf)
  - Ertle, B. (2019). *Math picture book activity guide: Crash! Boom! A Math Tale, by Robie H. Harris*. [https://dreme.stanford.edu/wp-content/uploads/2023/05/crash\\_boom\\_activity.pdf](https://dreme.stanford.edu/wp-content/uploads/2023/05/crash_boom_activity.pdf)
- Ertle, B. (2014). *Math skills task assessment - KG1: Teacher guide and scoring sheet*. Unpublished measure, Atfal Abu Dhabi Kindergarten, Abu Dhabi, U.A.E.
- Ertle, B. (2014). *Math skills task assessment – KG2: Teacher guide and scoring sheet*. Unpublished measure, Atfal Abu Dhabi Kindergarten, Abu Dhabi, U.A.E.
- Ertle, B. (2013). *Parent math activities*. Unpublished manuscript.
- Ertle, B. (2012). *Dot card activities*. Unpublished manuscript.
- Ertle, B. (2012). *Math activities and teachers guide*. Unpublished manuscript.
- Ertle, B. (2012). *Recommended scope and sequence: Number - Collins Math supplemented with Big Math for Little Kids*. Unpublished manuscript, Atfal Abu Dhabi Kindergarten, Abu Dhabi, U.A.E.
- Ertle, B. (2012). *Developmental dimensions in learning number*. Unpublished manuscript.

- Ertle, B. (2010). *Examining the efficacy of Assessment for Learning (AFL) in Practice Area Network ESO 5 schools: A two-year project*. Unpublished manuscript, New York City Department of Education, New York, NY.
- Ertle, B. (2010). *Pattern activities for Unifix Cubes*. Unpublished math curriculum materials.
- Ertle, B. (2010). *Bringing home the math: Online modules in math learning*. New Jersey Network, Trenton, NJ. <http://www.njn.net/education/parents/bringinghomethemath/> (no longer available)
- Ertle, B. & Ginsburg, H. (2007). *Early elementary mathematics Wireless Generation professional development program*. Unpublished manuscript.
- Boyd, J., Curran, T., Dolan, A., Ertle, B., Eisenband, J., Ginsburg, H., Kerner, L., Manlapig, L., & Morgenlander, M. (2006). *Children's mathematical thinking: Mathematics TEKS session 1*. Texas Education Agency and Texas A&M University.
- Boyd, J., Curran, T., Dolan, A., Ertle, B., Eisenband, J., Ginsburg, H., Kerner, L., Manlapig, L., & Morgenlander, M. (2006). *Assessment: Mathematics TEKS session 4*. Texas Education Agency and Texas A&M University.
- Ertle, B., Cannon, J., Ginsburg, H., & Manlapig, L. (2005). *Early Childhood Mathematics Teaching Quality Measure*. Unpublished measure, Columbia University Teachers College, New York, NY.
- Ertle, B., Chokshi, S., & Fernandez, C. (2001). *A tool for planning and describing study lessons*. Columbia University Teachers College, New York, NY.  
[http://www.tc.columbia.edu/lessonstudy/doc/Lesson\\_Planning\\_Tool.pdf](http://www.tc.columbia.edu/lessonstudy/doc/Lesson_Planning_Tool.pdf)
- Ertle, B. (2000). *Baltimore during the War of 1812 – online lesson*. Pride of Baltimore, Inc., Baltimore, MD. <http://www.pride2.org/NewPrideSite/Pride2/P2Schools.html> (no longer available)

### **GRANTS:**

- 2021, Faculty Development Grant, Adelphi University
- Measuring the Effectiveness of a Digital Game Designed to Promote Subitizing Skills in Young Children
  - With David Chays (Mathematics and Computer Science) and Saleh Aliyari (Mathematics and Computer Science, Guest Scholar)
- 2005, Spencer Foundation Research Training (RTG) Grant, Columbia University/Teachers College

### **WORKS IN PROGRESS:**

- Aliyari, S., Chays, D., & Ertle, B. *Development of digital games for early math learning*.
- Guiding computer science students to develop digital games for early math learning, and measures to test efficacy of digital games
  - Digital game ideas developed by B. Ertle for promoting engaging and authentic early math learning, addressing subitizing, cardinality, number operations, shape, pattern, and measurement
- Ertle, B. & Raelina, S. *Use of board games to promote meaningful and engaging mathematical learning*.
- Development and pilot testing of teaching materials for incorporating existing board games in elementary math instruction
  - Development of new board games for elementary math instruction

### **OTHER PROFESSIONAL MEETINGS:**

January 2008, Developing the Next Wave of Quality Measures for Early Childhood and School-Age Programs: A Working Meeting, Washington, DC



- Sponsored by Educational Development and Partnership Division; Office of the Assistant Secretary for Planning and Evaluation; National Institutes of Health; Office of Family Assistance; Office of Planning, Research and Evaluation; U.S. Department of Education; Child Trends, Inc.; Xtria, LLC

### **ACADEMIC AND PROFESSIONAL SOCIETIES:**

National Association for Education of Young Children (NAEYC) – 2009 to present.

National Council of Teachers of Mathematics (NCTM) – 2007 to present.

Asperger Syndrome and High Functioning Autism Association (AHANY) - 2012 to present.

### **SERVICE:**

#### **PROFESSIONAL**

Consulting Work (listed under Professional Experience)

Journal Article Reviews:

- Early Childhood Research Quarterly
- Journal for Research in Mathematics Education
- Journal of Applied Developmental Psychology
- Mathematical Thinking and Learning
- ZDM Mathematics Education

Book Reviews:

- Brookes Publishing Co.
- Routledge/Taylor and Francis Group

Measurement Reviews:

- Brookes Publishing Co.
- HighScope

### **SCHOOL**

CAEP (previously NCATE) SPA Report Writer – Early Childhood Programs – 2011 to present

Unit Peer Review Committee – Fall 2017 to Spring 2018

Assessment, Standards, & Policies Committee – Fall 2014 to present

Ad hoc Dispositions Committee – Fall 2012 to Spring 2016

Governance and Elections Committee – Fall 2009 to Spring 2014

Adelphi Summer Institute in Mathematics and Science Education – Summer 2010

New Program Course Development

- 0814-723: S/T: Exploration and Analysis of Early Childhood Curricula (Fall 2016)
- 0820-787: S/T: Early Childhood Sensory Processing (Summer 2016)
- 0820-810: S/T: Developing Social Stories for Young Children (Summer 2015)
- 0814-723: Integrated Content in Early Childhood (Fall 2014)
- 0820-810: S/T: Classroom Materials for Math Common Core Understanding (Summer 2014)
- 0820-810: S/T: Developing Quality Classroom Materials (Summer 2013)
- 0810-761: Childhood Math Education for Students with Special Needs (Spring 2013)
- 0814-550: S/T: Mathematical Manipulatives (Spring 2010)

Faculty Search Committees

- Early Childhood/Early Childhood Special Education (Fall 2022) - Chair
- Early Childhood (Spring 2022) - Chair
- Early Childhood (Fall 2012)
- Early Childhood Special Education (Spring 2012)
- Early Childhood (Spring 2011)

UNIVERSITY

Faculty Senate – Fall 2015 to Spring 2018

Autism Task Force – 2009 to 2016

STUDENT THESIS PROJECTS ADVISED

Project Advisor, Brittany Reh, 2021, Constructivist strategies in mathematics education: An examination of the advantages and possible disadvantages

Project Advisor, Emily Ribeiro, 2021, The benefits of implementing art into elementary mathematics education

Project Advisor, Hannah Wiscovitch, 2021, Strategies and methods for math special education

Committee Member, Jeanne Butler, 2023, Impact of developmental stages on mathematics learning in adolescents

OTHER STUDENT PROJECTS ADVISED

In conjunction with Faculty Development Grant Project

Aliyari, S., Chays, D., & Ertle, B. *Development of digital games for early math learning.*

Mentored the following students:

- Jasur Shukurov
- Laszlo Goch
- Hung Manh Vang
- Dias Utebekov
- Andrew Fuchs