

## ALEJANDRA SALINAS, PHD.

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### EDUCATION

- Ph.D.      **University of Miami**, Coral Gables, FL  
Mathematics and Science Education; May 2010  
*Dissertations Topic: Investing in our teachers: A meta-analysis on the effects of professional development on students' mathematics achievement.*
- M.A.      **University of Michigan**, Ann Arbor, MI  
Mathematics Education; June 2002
- B.S.E.      **University of Michigan**, Ann Arbor, MI  
Aerospace Engineering; May 2001

### RELEVANT WORK EXPERIENCE

- 2010 – Present      **Boston University, School of Education**  
*Clinical Associate Professor, Mathematics Education*
- Teaching: I have taught a variety of courses focused on the preparation of preservice mathematics teachers. I also developed and taught the courses Assessments in Mathematics and Equitable Pedagogies in STEM Education and co-developed an Introduction to Mathematics Education course.
  - Practicum Director: As the Practicum Director, I find placements for students' practicum experiences, supervise student-teachers, organize and train Program Supervisors, and lead reflection seminars for student teachers.
  - Research: Conducted research around supporting teachers and preservice teachers through 3 different research projects.
    - Elementary Preservice Mathematics Teachers Project (EMP). This NSF-funded project created and tested curricular materials designed to support preservice elementary teachers in developing content and pedagogical content knowledge.
    - Ready to Learn. As a subcontractor to PBS, this US DOE-funded project team wrote curricular materials to support early childhood teachers in integrating transmedia to teach mathematics and science.
    - Conceptions of Equity in Mathematics Preservice Teachers. This collaboration of Mathematics Education faculty across 3 universities sought to develop tasks to help transform preservice mathematics teachers' conceptions of equity in mathematics teaching and learning.
    - PI for the Enacting Curriculum to Through Engaging Discourse (EnaCTED) Math Project, a Robert Noyce Teacher Scholarship Program.
  - Service: In addition to my current role as member of the Equity, Diversity, and Inclusion committee, Practicum Director for mathematics education, and my on-going work advising mathematics education students, I currently chair the School of Education's Equity, Diversity, and Inclusion committee and the Appointments, Reappointments, and Promotions committee, and was a member of the school's Academic Conduct Board. My

service to the profession outside of the university included being a board member of AMTE's Affiliate Connections Committee, leading a student-award search for TODOS: Mathematics for All, and being on the board of MassMATE, the local AMTE affiliate.

- 2006 - **Promoting Science among English Language Learners (P-SELL)**  
 2010 *Doctoral Research Assistant and Professional Development Instructor, University of Miami*  
 This 5-year, NSF-funded research and development project consists of several researcher-developed science units to be taught in grades 3-5, as well as professional development for teachers. The curriculum is designed to support students' understanding of science through inquiry while using strategies to simultaneously support language development. The curriculum was implemented and tested across 6 elementary schools in Miami, FL during this phase of the project. (PI: Okhee Lee)
- Summer **Educational Testing Service (ETS)**  
 2009 *Research and Development Intern on the Keeping Learning on Track project*  
 This research investigated the efficacy of Keeping Learning on Track, a professional development program focused on developing teachers' use of formative assessments to make adjustments to their instructional practices in the classroom. (PD Developed by Dylan Wiliam; PI: Caroline Wylie)
- Fall **University of Miami, School of Education**  
 2007 - *Co-teacher, Instruction in Secondary Mathematics*  
 2008
- Fall **University of Miami, School of Education**  
 2007 - *Co-teacher, Instruction in Elementary Science and Social Studies Methods*  
 2009
- Summer **Upward Bound, Florida International University, Miami, FL**  
 2005 *Mathematics Teacher*
- 2002 - **Waterford Kettering High School; Waterford, MI**  
 2005 *Mathematics Teacher*

#### FUNDED RESEARCH

- 2021 – 2022 **Gordon Marshal (Teaching) Grant**  
 BU Wheelock, \$10,000
- 2017 - 2022 **Enacting Curriculum through Engaging Discourse (EnaCTED)**  
*PI*  
 Co-PI: A Brakoniecki  
 NSF, Noyce \$1.2 Million
- 2015 - 2020 **A Transmedia Approach to Science and Literacy Learning in Early Childhood Classrooms**  
*Mathematics and Science Education Specialist*  
 Multi-PI: CPB/PBS & J. Paratore  
 US DOE Ready to Learn, \$879,000
- 2013 - 2016 **Elementary Preservice teachers Mathematics Project (EMP) Phase 2**

*Co-PI*

PI: S. Chapin; Co-PI: Z. Feldman

NSF, TUES, \$549, 999

- 2011 – 2015    **Expanded Learning through Transmedia Content**  
*Mathematics and Science Education Specialist*  
Prime: CPB/PBS; Subcontract PI: J. Paratore  
US DOE Ready to Learn, \$800,000.
- 2010 - 2011    **Elementary Preservice teachers Mathematics Project (EMP) Phase 1**  
*Project Faculty*  
PI: S. Chapin  
National Science Foundation, \$150,000 (2009 – 2011)
- 2006 - 2010    **Promoting Science among English Language Learners (P-SELL)**  
*Doctoral Research Assistant and Professional Development Instructor*  
PI: O. Lee; Co-PI: W. Secada.  
NSF, Teacher Professional Continuum Program, 2004 – 2010, \$4.9 million.

**PUBLISHED MANUSCRIPTS**

**(ACADEMIC JOURNALS, BOOKS & CONFERENCE PROCEEDINGS)**

\* indicates names listed in alphabetical order; equal contribution by each author.

Brittain, L., Crawford, J., Schapiro, S., Paratore, J. R., **Salinas, A.**, O'Brien, L., & Blodgett, S. (2018). Building learning pathways and community for early childhood educators. In *Getting Ready To Learn; S. Pasnik (ed).* (pp. 45-60). Routledge; New York.

Buxton, C., **Salinas, A.**, Mahotiere, M., Lee, O. & Secada, W. G. (2015). Fourth grade English learners' scientific reasoning complexity, inquiry practices, and content knowledge in home, school and play contexts. *Teachers College Record*, 117(2), 1-36.

Buxton, C., **Salinas, A.**, Mahotiere, M., Lee, O. & Secada, W. G. (2013). Leveraging cultural resources through teacher reasoning: Teachers analyze English language learners' problem solving in science. *Teaching and Teacher Education*, 32, 31-42.

Chapin, S. H., Gibbons, L., Feldman, Z., Callis, L. K., & **A. Salinas** (2021). The Elementary Mathematics Project: Supporting Preservice Teachers' Content Knowledge for Teaching. In Y. Li, Y., Howe, R., Lewis, W.J., & J. Madden (Eds.), *Developing mathematical proficiency for elementary instruction, Advances in STEM education* (pp. 89-114). New York City: Springer International Publishing. [https://doi.org/10.1007/978-3-030-68956-8\\_4](https://doi.org/10.1007/978-3-030-68956-8_4)

\*Jackson, C., Roberts, S., & **Salinas, A.** (2012) Secondary Pre-Service Mathematics Teachers' Conceptions of Equity. In L.R. Van Zoest, J.J. Lo, & J.L. Kratky (Eds.), *Proceedings of the Thirty-fourth Annual Meeting of PME-NA – The North American Chapter of the International Group for the Psychology of Mathematics Education* (pp.363-366), Western Michigan University, Kalamazoo, MI.

Lee, O., Mahotiere, M., **Salinas, A.**, Penfield, R. D., & Maerten-Rivera, J. (2009). Science writing achievement among English language learners: Results of three-year intervention in urban elementary schools. *Bilingual Research Journal*, 32(2), 153-167.

O'Brien, L.M., Paratore, J.R., **Salinas, A.**, & Blodgett, S. (in press), Using Connected Teaching and Learning to Deepen Children's Interdisciplinary Learning, *Journal of Early Childhood Research*.

O'Brien, L., **Salinas, A.**, Reinhart, K., & Paratore, J. (2018). Preservice Teachers' Use of Technology and Multimodal Text Sets in Teaching Reading: Lessons Learned from a Design-Based Study. In E. H. Cheek, & P. Semington (Eds.), *Best Practices in Teaching Digital Literacies*. Emerald.

Paratore, J.R., O'Brien, L.M., Jimenez, L., **Salinas, A.**, & Ly, C. (2016). Engaging preservice teachers in integrated study and use of educational media and technology in teaching reading. *Teaching and Teacher Education*, 59, 247-260.

**Salinas, A.**, Feldman, Z., Callis, L. M. K., & Chapin, S. (2016). A Mathematics Curriculum That Supports Preservice Elementary Teachers' Content Knowledge for Teaching Mathematics. *AERA Online Paper Repository*.

**Salinas, A.**, Jackson, C., Roberts, S. (2013, November). Preservice teachers' emergent conceptions of equity. In Martinez, M. & Castro Superfine, A (Eds.). *Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, (pp. 865–868). Chicago, IL: University of Illinois at Chicago.

**Salinas, A.**, & Ly, C. (2014). Mathematics Gaming in Early Childhood: Describing Teacher Moves. In D. Polly (Ed.) *Cases on Technology Integration in Mathematics Education*, 351- 364.

**Salinas, A.**, O'Brien, L. , Frometa, A., & Paratore, J. Paint-A-Long. In Schrier, K. (Ed.). *Learning, education & games vol. 3: 100 games to use in the classroom and beyond* (pp. 301-304). Pittsburgh, PA: ETC Press (Carnegie Mellon).

#### CONFERENCE PRESENTATIONS

\* indicates names listed in alphabetical order; equal contribution by each author.

Chapin, S., Feldman, Z., **Salinas, A.**, & Callis, L.K. (2016, April). Effectiveness of curriculum units for preservice elementary teachers. Research presented at the 2016 Research Presession of the National Council for Teachers of Mathematics (NCTM), San Francisco, CA. (peer reviewed).

**Salinas, A.**, Feldman, Z., Callis, L.K., & Chapin, S. (2016, April) A mathematics curriculum that supports preservice teachers' content knowledge for teaching mathematics. Paper presented at the 2016 annual meeting of the American Educational Research Association (AERA); Washington DC. (peer reviewed)

Feldman, Z., Chapin, S., **Salinas, A.**, & Callis, L.K. (2016, January). Curriculum units for elementary mathematics content courses: Developing faculty expertise. Research presented at the 2016

- annual meeting of the Association of Mathematics Teacher Educators (AMTE). Irvine, CA. (peer reviewed).
- Callis, L. K., Afonso, R., Brandebourger-Bodet, C., Mateas, V., Miller, E., Richman, A., Goldberg, C., Chapin, S., **Salinas, A.** & Feldman, Z. (2015, April) Explore Boston Mathematically: Math Challenge Tours. National Council of Teachers of Mathematics (NCTM) Annual Conference. Boston, MA. April 16-17, 2015. Four presentations at the 2015 National Council of Teachers of Mathematics Annual Conference. Boston, MA
- Paratore, J. R., **Salinas, A.**, & Crawford, J. (2015, April). Transmedia Storytelling for Teaching Math. Paper presented at the National Council for Teachers of Mathematics (NCTM), Boston, MA. (Peer reviewed)
- Paratore, J. R., O'Brien, L. M., Jiménez L., **Salinas, A.**, & Ly, C. (2015). Preservice teachers' use of educational media and teaching reading: A design-based study. Paper presented at Annual Meeting of the Literacy Research Association (LRA), Carlsbad, CA. (peer reviewed)
- Paratore, J. R., O'Brien, L. M., **Salinas, A.** Jiménez, L. (2014, December). Engaging preservice teachers in integrated study and use of educational media and technology in teaching reading. Paper presented at the Literacy Research Association Annual Conference (LRA), Marco Island, FL. (peer reviewed)
- Paratore, J. R., Crawford, J., & **Salinas, A.** (2014, June) Transmedia storytelling for teaching math. International Society for Technology in Education, Annual Meeting ISTE, Atlanta, GA. (peer reviewed)
- Roberts, S., Jackson, C., & **Salinas, A.** (2014, April). Characterizing Worthwhile Equitable Pedagogies in Mathematics Tasks. Poster presented at the annual American Education Research Association (AERA) conference. Philadelphia, PA. (peer reviewed)
- Salinas, A.**, Jackson, C., & Roberts, S. (2014, February). Evolving prompts to elicit preservice teachers' conceptions of equity in mathematics education. Presentation at the annual Association of Mathematics Teacher Educators (AMTE). Irvine, CA. (peer reviewed).
- Paratore, J. R., **Salinas, A.**, & Crawford, J. (2013, June). Teaching games well: Supercharging early math and literacy. International Society for Technology in Education (ISTE), San Antonio , TX. (peer reviewed)
- Paratore, J. R., Crawford, J., O'Brien, L., & **Salinas, A.** (2013, June). Teaching games well: Effective use of online games to enhance children's early mathematics and literacy development in preschool settings. National Association for Education of Young Children, San Francisco ,CA. (peer reviewed)
- Salinas, A.** (2013, April). Supporting preservice teachers' mathematical learning through argumentation. Presentation at the 2013 Research Presession of the National Council for Teachers of Mathematics (NCTM), Denver, CO. (peer reviewed)
- \*Jackson, C., Roberts, S., & **Salinas, A.** (2012; November) Secondary Pre-Service Mathematics Teachers' Conceptions of Equity. Research presented at the thirty-fourth Annual Meeting of PME–NA – The North American Chapter of the International Group for the Psychology of Mathematics Education, Kalamazoo, MI. (peer reviewed)
- \*Jackson, C., Roberts, S., & **Salinas, A.** (2012, February). Preservice teachers' understanding of equity in the teaching of mathematics. Poster presented at the 2012 meeting of the STaR Fellows. (invited)

- Salinas, A.** (2011, November). RTL at BU: Helping early childhood teachers implement transmedia technology. Presentation at the Ready to Learn Bootcamp Meeting hosted by PBS, Arlington, VA. (invited)
- Salinas, A.** (2011, October). Pre-service elementary mathematics teachers use of discourse and argumentation. Presentation at the University of New Hampshire, Durham, NH. (invited)
- Salinas, A.** (2011, May). *The Elementary Pre-service Teachers' Mathematics Project*: The role of justification and discourse in learning. Presentation at the MassMATE Annual Conference, Bridgewater State College, Bridgewater, MA. (invited)
- Chedister, M. Bunn, J., Chapin, S., Cheng, D., Feldman, Z. & **Salinas, A.** (2011, April). The use of discourse in developing prospective teachers' mathematical justifications. Research presented at the 2011 Research Presession of the National Council for Teachers of Mathematics (NCTM), Indianapolis, IN. (peer reviewed)
- Salinas, A.** (2011, April). Investing in our teachers: A meta-analysis on the focus of professional development. Research presented at the 2011 Research Presession of the National Council for Teachers of Mathematics (NCTM), Indianapolis, IN. (peer reviewed)
- Feldman, Z., Chedister, M., Ng, D., Cheng, D., Chapin, S., **Salinas, A.**, Bunn, J., & Shumway, J. (2011, January). Using mathematical tasks and discourse-based instruction to promote pre-service elementary teacher knowledge. Research presented at the 2011 annual conference of the Association of Mathematics Teacher Educators (AMTE), Irvine, CA. (peer reviewed)
- Salinas, A.** (2009, August). *Keeping Learning on Track*: Improving and assessing teacher quality. Research presented at Educational Testing Services (ETS), Princeton, NJ. (invited)
- Salinas, A.**, & Gattamorta, K. (2009, June). A model of factors influencing teachers' expectations of student math achievement. Poster presented at the 2009 annual conference of the Institute for Educational Sciences (IES), Washington, D.C. (invited)
- Salinas, A.**, & Quintana G. (2008, April). The effects of race on teacher efficacy and practice. Paper presented at the 2008 annual conference of the National Council for Teachers of Mathematics (NCTM), Salt Lake City, UT. (peer reviewed)
- Lee, O., Mahotiere, M., **Salinas, A.**, Maertín-Rivera, J., and Penfield, R. (2008, March). Third grade writing: Gaps and gains. Paper presented at the 2008 annual conference of the American Educational Research Association (AERA), New York. (peer reviewed)
- Quintana, G. A., & **Salinas, A.** (2007). Teacher movement in urban schools. Poster presented at the 2007 annual conference of the Institute for Educational Sciences (IES), Washington, D.C. (invited)

## CURRICULUM DEVELOPMENT — CURRICULUM TO BE USED WITH CHILDREN

### **Boston University Teaching Tips**

<https://mass.pbslearningmedia.org/collection/rtl-teachingtips/#.Wirfy0trxAg>

*A transmedia curriculum to support the use of selected PBS Kids games, videos, and apps in kindergarten and first-grade classrooms. Development team members: J. Paratore, A. Salinas, L. O'Brien (2010 to present) S. Blodgett (2015-present), C. Ly (2011-2015). Project funded by U.S. Department of Education/PBS/CPB Ready to Learn Grant 2010-2015; 2015-2020).*

*Website Description: Teaching Tips developed by the Boston University School of Education provide teachers with detailed lesson plans for successfully integrating PBS KIDS digital media into their regular classroom instruction to build children's core science content knowledge and inquiry skills. The Teaching Tips include detailed step-by-step lessons for using high-quality educational media to enhance standards-based teaching and learning. All mathematics modules are aligned to the Common Core State Standards for Mathematics; all science modules are aligned to Next Generation Sciences Standards (NGSS). Video clips of exemplar teachers using the Teaching Tips in the classroom are included to provide models not only for using the Tips in the classroom, but also of good teaching practices -- keeping lessons on pace, engaging all children, using vocabulary frequently, supporting scientific thinking and reasoning, and supporting independent learning.*

*Collection of modules (to date) follows:*

#### Forces and Motion Teaching Tips | RTL 2015-2020

Lessons using informational texts, digital games and video clips from PBS Kids *Ready Jet Go* help children build concept knowledge about forces and motion and how they affect the ways we use our understanding to solve problems in our world. In the collection of four lessons, children explore the Engineering Design Process; the effect of direction of forces on an object's motion; the effect of strength and direction of forces on an object's velocity (it's speed and direction; and ways to apply a new force to change a moving object's velocity. (Spring 2020).

<https://mass.pbslearningmedia.org/resource/a03f6c04-ec93-4a13-9090-92a2bbd4419b/learning-about-forces-motion-teaching-tips/>

#### Properties of Materials Teaching Tips | RTL 2015-2020

Lessons using informational texts, digital games and video clips from PBS Kids *Cat in the Hat* help children build concept knowledge about properties of materials and how they affect the ways we use them to solve problems in our world. Lessons are developed around four topics: properties of materials that support building bridges, cause more or less friction, explain why an object sinks or floats, and sorting materials according to their properties. (Published online Fall, 2018)

<https://mass.pbslearningmedia.org/resource/properties-of-materials/>

#### Animal Adaptations Teaching Tips | RTL 2015-2020

Lessons using informational texts, and digital games and video clips from PBS Kids *Wild Kratts* help children build concept knowledge about animal adaptations and how these adaptations help animals meet their needs and survive. Children also learn about ways in which humans can improve their performance and solve problems by mimicking the ways animals use their physical characteristics to meet their needs. (Published online Fall, 2017)

<https://mass.pbslearningmedia.org/resource/rtl-2015-2020-teaching-animal-adaptations/>

### Energy & Motion Teaching Tips | RTL 2015-2020

Lessons using informational texts and digital media (online games and videos) from PBS KIDS shows, including *Sid the Science Kid*, *Martha Speaks*, and *The Cat in the Hat*, help children build concept knowledge about potential and kinetic energy and the forces, such as friction, that affect the speed and direction of an object in motion. (Published online Fall, 2017)

<https://mass.pbslearningmedia.org/resource/rtl-2015-2020-teaching-energy-motion/>

### Deductive and Inductive Reasoning (First Grade) | Teaching Tips | RTL 2010-2015

Use these teaching tips from the PBS KIDS Lab to help children make sense of problems and persevere in solving them, determine the unknown whole number in an addition or subtraction equations, use addition and subtraction within 20 to solve word problems, and look for and express regularity in repeated reasoning. Together with a collection of fun games and activities featuring PBS KIDS characters from *Odd Squad*, these resources make elementary math more fun within and outside of the classroom! (Published online Fall, 2015)

<https://mass.pbslearningmedia.org/resource/kids-lab-teaching-tips-deductive-inductive-tips/deductive-and-inductive-reasoning-first-grade-teaching-tips/#.WirkuktrxAg>

### Measuring Length (First Grade) | Teaching Tips | RTL 2010-2015

Use these teaching tips from the PBS Kids LAB to help children understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps, and measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tape. Together with a collection of fun games and activities featuring PBS KIDS characters from *Odd Squad*, these resources make elementary math more fun within and outside of the classroom! (Published online Fall, 2015)

<https://mass.pbslearningmedia.org/resource/kids-lab-teaching-tips-measuring-length-tips/measuring-length-first-grade-teaching-tips/#.Wirk5UtrxAg>

### Fractions (First Grade) | Teaching Tips | RTL 2010-2015

Use these teaching tips from the PBS Kids LAB to help children partition circles and rectangles into two and four equal shares, describe the shares using the words "halves," "fourths," and "quarters," and use the phrases "half of," "fourth of," and "quarter of." Together with a collection of fun games and activities featuring PBS KIDS characters from *Peg + Cat*, these resources make elementary math more fun within and outside of the classroom!

<https://mass.pbslearningmedia.org/resource/kids-lab-teaching-tips-fractions-tips/fractions-first-grade-teaching-tips/#.Wiri20trxAg>



### Measurement and Data (First Grade) | Teaching Tips | RTL 2010-2015

Use these teaching tips from the PBS Kids LAB to help children use non-standard measurements to determine length, sort objects in multiple ways, add and subtract numbers within 20, and compare quantities. Together with a collection of fun games and activities featuring PBS KIDS characters from Wild Kratts and Fizzy's Lunch Lab, these resources make elementary math more fun within and outside of the classroom!

<https://mass.pbslearningmedia.org/resource/8d95699c-968e-4719-a23f-e6bce9f63f4a/measurement-and-data-first-grade-teaching-tips/#.WirkBEtrxAg>

### Operations and Algebraic Thinking, Number and Operations in Base Ten (First Grade) | Teaching Tips | RTL 2010-2015

Use these teaching tips from the PBS Kids LAB to help children gain fluency in addition and subtraction, practice adding three numbers within 20, write number sentences with three addends, understand place value, and count by tens, fives, and ones to determine quantities. Together with a collection of fun games and activities featuring PBS KIDS characters from Cyberchase and Fizzy's Lunch Lab, these resources make elementary math more fun within and outside of the classroom!

<https://mass.pbslearningmedia.org/resource/65d334d4-343a-4692-9e3a-ae00f845de67/operations-and-algebraic-thinking-number-and-operations-in-base-ten-first-grade-teaching-tips/#.WirkP0trxAg>

### Counting, Cardinality, and Addition (Kindergarten) | Teaching Tips | RTL 2010-2015

Use these teaching tips from the PBS Kids LAB to help children recognize three representations of a number, practice counting, connect counting to cardinality, estimate and compare quantities, and solve addition problems. Together with a collection of fun games and activities featuring PBS KIDS characters Curious George and Sid the Science Kid, these resources make elementary math more fun within and outside of the classroom!

<https://mass.pbslearningmedia.org/resource/462bbfa8-08ae-4676-b295-bcb64669913f/counting-cardinality-and-addition-kindergarten-teaching-tips/#.WirmyktrxAg>

### Shapes and Spatial Sense (Kindergarten) | Teaching Tips | RTL 2010-2015

Use these teaching tips from the PBS Kids LAB to help children learn the names and attributes of different shapes, identify shapes regardless of orientation or size, and combine shapes to make new shapes. Together with a collection of fun games and activities featuring PBS KIDS characters from Dinosaur Train, these resources make elementary math more fun within and outside of the classroom!

<https://mass.pbslearningmedia.org/resource/154c5d03-c9f9-4e67-a107-c6cec4d79d65/shapes-and-spatial-sense-kindergarten-teaching-tips/#.WirjKktrxAg>

### Measurement, Sorting, and Data (Kindergarten) | Teaching Tips | RTL 2010-2015

Use these teaching tips from the PBS Kids LAB to help children describe and compare measurement attributes such as weight and length, use non-standard units of measurement, sort objects, and use a pictograph to compare quantities. Together with a collection of fun games and activities featuring PBS KIDS characters from Curious George and Sid the Science Kid, these resources make elementary math more fun within and outside of the classroom!

### Operations and Algebraic Thinking (Kindergarten) | Teaching Tips

Use these teaching tips from the PBS Kids LAB to help children solve addition and subtraction problems, write number sentences, and learn number facts for pairs of numbers that equal ten. Together with a collection of fun games and activities featuring PBS KIDS characters from Curious George and Cyberchase, these resources make elementary math more fun within and outside of the classroom!

<https://mass.pbslearningmedia.org/resource/01d10223-8b62-45ef-b023-44299c0cbcd6/operations-and-algebraic-thinking-kindergarten-teaching-tips/#.WirjZ0trxAg>

### Counting and Operations (Kindergarten) | Teaching Tips | RTL 2010-2015

Use these teaching tips from the PBS Kids LAB to help children recognize numerals up to 10, count up to ten objects in a scattered configuration, write number sentences, figure out how many more are needed to make ten, count by tens and twos, make sense of patterns, and persist in solving problems. Together with a collection of fun games and activities featuring PBS KIDS characters from Peg and Cat, these resources make elementary math more fun within and outside of the classroom!

<https://mass.pbslearningmedia.org/resource/f321e5a1-8ac3-4c79-adbd-7f368d14cd55/counting-and-operations-kindergarten-teaching-tips/#.Wirjm0trxAg>

### 2-D and 3-D Shapes (Kindergarten) | Teaching Tips | RTL 2010-2015

Use these teaching tips from the PBS Kids LAB to help children draw 2-D shapes, recognize shapes in different orientations, identify basic shapes within a larger more complex shape, combine shapes to form larger and different shapes; differentiate between 2-D and 3-D shapes, and name and describe the attributes of 2-D and 3-D shapes. Together with a collection of fun games and activities featuring PBS KIDS characters from Peg and Cat, these resources make elementary math more fun within and outside of the classroom!

<https://mass.pbslearningmedia.org/resource/785c13dc-0853-4824-8292-69bcdf39b8df/2-d-and-3-d-shapes-kindergarten-teaching-tips/#.Wirj0ktrxAg>

## CURRICULUM DEVELOPMENT – CURRICULUM TO BE USED BY WITH IN-SERVICE AND PRESERVICE TEACHERS

*A Curiosity-Driven Approach to Teaching K-2 Science.* Paratore, J. **Salinas, A.**, Blodgett, S. Published through PBS Teacherline. Project funded by U.S.D.O.E. Ready to Learn Grant (2019).

*An Introduction to Using Inquiry and Connected Learning Approaches to Develop Young Children's Knowledge about Animal Adaptations.* Paratore, J., **Salinas, A.**, O'Brien, L., & Blodgett, S. Published through PBS Teacherline. Project funded by U.S.D.O.E. Ready to Learn Grant (2018).

*An Introduction to Using Inquiry and Connected Learning Approaches to Develop Young Children's Knowledge about Energy and Motion.* Paratore, J., **Salinas, A.**, O'Brien, L., & Blodgett, S. Published through PBS Teacherline. Project funded by U.S.D.O.E. Ready to Learn Grant (2018).

*Fractions. A curriculum to support the instruction of elementary mathematics preservice teachers.* Development team: S. Chapin, Z. Feldman, **A. Salinas**, L. Callis. Project funded by NSF (May 2016). Available at <http://elementarymathematicsproject.com>.

*Geometry. A curriculum to support the instruction of elementary mathematics preservice teachers.* Development team: S. Chapin, Z. Feldman, **A. Salinas**, L. Callis. Project funded by NSF (May 2016). Available at <http://elementarymathematicsproject.com>.

*Number Theory. A curriculum to support the instruction of elementary mathematics preservice teachers.* Development team: S. Chapin, Z. Feldman, **A. Salinas**, L. Callis. Project funded by NSF (May 2016). Available at <http://elementarymathematicsproject.com>.

*Promoting Productive Home-School Partnerships.* Paratore, J. **Salinas, A.**, Jackson, D. Published through PBS Teacherline. Project funded by U.S.D.O.E. Ready to Learn Grant (2020).

*Supporting Young Children's Science Learning in School and at Home.* Paratore, J. **Salinas, A.**, Blodgett, S. Published through PBS Teacherline. Project funded by U.S.D.O.E. Ready to Learn Grant (2019).

## REPORTS

Paratore, J. R., Dwyer, J., **Salinas, A.**, O'Brien, A. (2011). *Ready to Learn: Educational media and children's learning: Pathways to improving teachers' and their students' opportunities to learn from and about educational media.* Final Report – Year 1, submitted to Public Broadcasting Systems.

Paratore, J. R., **O'Brien, L. M.**, Jiménez L., Salinas, A., & Ly, C. (2014). *Engaging preservice teachers in integrated study and use of educational media and technology in*

*teaching of reading*. Final Report – Year 4, submitted to Public Broadcasting Systems.

**Salinas, A.,** Dwyer, J., Paratore, J.R., & O'Brien, L. (2012). *Integrating technology in early childhood education: What we know and what we should do*. Final Report – Year 2, submitted to Public Broadcasting Systems.

#### FELLOWSHIPS AND RECOGNITIONS

2011 – 2013	<b>STaR Fellow (Service, Teaching, and Research)</b> Early Career Fellowship Funded by National Science Foundation (NSF Grant. No. 0922410)
2006 - 2010	<b>Interdisciplinary Training in Education Research and Advanced Statistical Methods</b> Pre-doctoral Fellowship Institute of Educational Sciences (IES Grant No. DED-R305C050052)
Spring 2007	Recognized as a Future Leader in the University of Miami, School of Education magazine: <i>Building a Better Future</i>

#### PROFESSIONAL AFFILIATIONS

TODOS: Mathematics For All

- Student-Award Search Chair (2015)

Massachusetts Mathematics Association of Teacher Educators (MassMATE)

- Board member & Newsletter Chair (2011 – 2013)

Association of Mathematics Teacher Educators (AMTE)

- Affiliates Connections Committee member (2014 – 2017)

Psychology of Mathematics of Education (PME)

National Council of Teachers of Mathematics (NCTM)

American Educational Research Association (AERA)

#### AD HOC REVIEWER FOR THE FOLLOWING ACADEMIC JOURNALS

*Journal of Teacher Education*

*Educational Researcher*

*Journal of Education*

*Mathematics Teacher Educator*

*Elementary School Journal*

*International Journal of STEM Education*

*Teaching Children Mathematics*