

## PROFESSIONAL DETAILS

Name:	Sara B Sweetman	University of Rhode Island
Tel:	401-874-6008	Associate Professor of Education
Email:	<a href="mailto:sara_sweetman@uri.edu">sara_sweetman@uri.edu</a>	Director of GEMS-Net
		Guiding Education in Math and Science
		10 Chafee Road, Room 607
		Kingston, RI 02881

## EDUCATION

### 2013 Ph.D. Education.

- University of Rhode Island

### 2002 M.S. Elementary Education with a concentration in Early Childhood.

- Rhode Island College

### 1996 B.S. Child and Family Relations.

- University of New Hampshire

## EXPERIENCE

### 2015 - PRESENT Associate Professor, University of Rhode Island

Elementary Education Department, School of Education, College of Education and Professional Studies

Courses Taught Include:

- Individual Differences Field Component, EDC 454
- Language Arts Methods in Elementary and Middle School Teaching, EDC 455
- Science Methods in Elementary and Middle School Teaching, EDC 457
- Supervised Elementary Methods Practicum II, EDC 460
- Supervised Student Teaching, EDC 484
- Seminar in Student Teaching, EDC 485
- Problems in Education, EDC 587
- Directed Readings in Current Trends in Educational Technology, EDP 692

### 2009 - PRESENT Director of GEMS-Net, University of Rhode Island

Guiding Education in Math and Science- A School of Education Outreach Project

- Collaborate with University of Rhode Island professors and scientists as well as public elementary/middle school administrators and teachers to develop and deliver quality professional development to in-service teachers and administrators and work toward systemic science education reform.
- Compose and support implementation of curriculum that connects to local and National Standards.
- Manage project team members and a 3.1 million dollar budget each 3 year grant cycle.
- Research and evaluate the effectiveness of the program.

### 2012 - PRESENT Media consultant for Sesame Television Workshop (Sesame Street Season 41-44 & Electric Company & TBA Animation)

- Educate writers, media specialists, producers, actors, designers, and curriculum writers about the latest trends in STEM education.
- Appeared on three episodes of Sesame Street in season 46 as the science teacher with Murray and Ovejita.
- Critically review television scripts and video games for content correctness, depth of inquiry and critical thinking, and developmentally appropriate practices.
- Write curriculum for parents and teachers to use and extend educational media in the home and classroom.

**2015 - Present      Ready To Learn Grant PBS Kids/ Corporation for Public Broadcasting**

- Advisor for Ready to Learn Initiative. Support the creative process and development of deliverables for awarded grant 100 million dollars five-year US Department of Education grant 2015-2020. Develop frameworks for STEM media content.
- Creative team member for *Cat in The Hat Knows A lot About That*, development of curriculum (included in the bible), 40 TV episodes & interstitials, 6 digital games/ application, & numerous offline community programs and caretaker/ teacher materials.
- Creative team member for *Elinor Wonders Why*, co-wrote RFP to solicit new property, reviewed proposals, worked with new producer on development of pilot, reviewed pitch, outline, drafts, leicas, and final cuts for 80 TV and 8 digital games, creative developer for Elinor Wonders Why classroom resources.
- Advisor for WGBH's *Molly of Denali*, *Team Hamsters*, and *Mega Wow*.
- Researched *The Cat in the Hat* property materials in schools and at home.

**2017- Present      Product development team member for the Clinton Foundation's Too Small to Fail Campaign**

- Created STEM based playground signs and interactive panels.
- Developed preschool playground-based STEM curriculum.

**2022- Present      Advisor for Super Sema**

- Advisor for Super Sema, the first African animated superhero STEM series.
- Content creator for related educational vlogs.

**PUBLICATIONS**Selected Articles & Conference Papers

- Potvin, J., Chappell, K., Balestracci, K., Greene, G. W., Sweetman, S., & Amin, S. (2023). Formative Evaluation of a STEAM and Nutrition Education Summer Program for Low-Income Youth. *Evaluation and Program Planning*, 102255.
- Pietros, J., Sweetman, S., & Shim, M. (2022, March). How is Computational Thinking Defined in Elementary Science?. In *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education V. 2* (pp. 1112-1112).
- Sweetman, S. (July 30, 2021). How Much Time is Enough?: The Impact of Time of Exposure to Multiplatform Media Content on Preschoolers Understanding of the Nature of Science and Engineering. Connected Learning Summit Proceedings, Massachusetts Institute of Technology, Boston MA.
- Pasnik, S., Silander, M., Grindal, T., Redman, E., Learning, C., Sweetman, S., & Shea, K. (2021, April) Science and Engineering from Videos and Games: A Randomized Trial of PBS KIDS The Cat in the Hat Knows a Lot About That Paper symposium, SRCD online.
- Pietros, J. & Sweetman, S. (April 8, 2021) An Exploratory Study on Computational Thinking in Elementary Science. The National Association of Research on Science Teaching (NARST) Proceedings. Virtual Conference.
- Pietros, J. & Sweetman, S. (2020). The Importance of Research Practice Partnerships for Professional Development. *Journal of the National Association for Professional Development Schools*, special edition Partners: Bridging Research to Practice 15(2) p.23-25.
- McNamara, J., Sweetman, S., Connors, P., Lofgren, I., & Greene, G. (2020). Using interactive nutrition modules to increase critical thinking skills in college courses. *Journal of nutrition education and behavior*, 52(4), 343-350.
- Sweetman, S., Brand, S., Holland, B., Kim, H., Murray, K., & Shea, K. (2019). The Cat in the Hat

- [Knows a Lot About That!™](#) provides STEM learning opportunities for pre-school children: A mixed methods analysis of children’s knowledge, perceptions, and language of science and engineering. Kingston, RI: The University of Rhode Island. & [Summary Doc](#)
- Sweetman, S. & Shea, K., & Silversmith, J. (2018). Collaboration between formal and informal networks: Partnering educators for place-based learning experiences. *School-University Partnerships* 11(4), p.104-121.
- Sweetman, S.B., Mirkin, L.S., Lund, A.E., and Bishop, S.K., (2018). Preschoolers learn to think and act like scientists with *The Cat in the Hat In S. Pasnik (Ed.), Getting Ready to Learn: Creating Effective, Educational Children’s Media*. New York: Routledge.
- Sweetman, S., & Sabella, S. (2018). Reading with a purpose. *Science and Children*, 55(8), 76-80.
- Sweetman, S., & Shea, K. (2018). Promoting equity through networked improvement communities: Early elementary urban and rural students’ perceptions of scientists. Nassau Bahamas: *Urban Education Proceedings*.
- Shea, K & Sweetman, S. (2017). The Effects of a Comprehensive Professional Development Program on Primary Students’ Perceptions of Scientists, Science, and Science Self-Concept. Seville Spain: *ICERI2017 Proceedings*.

#### SELECTED PUBLISHED INTERVIEWS

- Lavallee, D. (2022, Fall). She Can Tell You How to Get to Sesame Street. University of Rhode Island Magazine  
<https://www.uri.edu/magazine/issues/fall-2022/she-can-tell-you-how-to-get-to-sesame-street/>
- Lavallee, D. (2021, May 17). URI professor plays prominent role in development of PBS Kids’ show Elinor Wonders Why™  
<https://today.uri.edu/news/uri-professor-plays-prominent-role-in-development-of-pbs-kids-show-elinor-wonders-why/>
- Jacobson, L., (2019, Oct 2). E is for Educator: Sesame Street celebrates 50 years of quality early learning. *Education Dive* <https://www.educationdive.com/news/e-is-for-educator-sesame-street-celebrates-50-years-of-quality-early-learn/563452/>
- Farrelly, A. (2019, Spring). Increasing the dosage of science education. *Momentum: Research & Innovation* p.32-33  
<https://web.uri.edu/research-admin/externalrelations/current-research-magazine/>
- Solomon, A. (November/ December 2018). “Sesame Street” Experiments: The classic children’s show encourages kids to stay curious. *Diversity in Action* p. 18-19  
[https://mydigitalpublication.com/publication/?i=546556#%22issue\\_id%22:546556,%22page%22:20](https://mydigitalpublication.com/publication/?i=546556#%22issue_id%22:546556,%22page%22:20)
- Stringer, K. (2017, Feb 27). The STEM superhero of Sesame Street How and why the lovable, mistake-prone Grover was selected to teach children about science, technology, and math. *The Atlantic*  
<https://www.theatlantic.com/education/archive/2017/02/the-stem-superhero-of-sesame-street/517905/>

#### SELECTED CONFERENCE PRESENTATIONS

##### National and International

- Sweetman, S., Narvaez, A., Monterroso, M, Sessler, J, & Williams, S. (2021, Jan 15) PBS KIDS Unlocks Early Science Learning with Elinor Wonders Why. The National Association of the Education of Young Children Webinar.
- Cham, J., Whiteson, D., Lund, A., & Sweetman, S. (2020, Sept 8) PBS Unlocks Digital Learning in Science with Elinor Wonders Why. Campaign for Grade Level Reading Webinar.
- Cannon, E., Narvaez, A., Shea, K., and Sweetman, S. (Jan 2020). *Not in my classroom! Tackling the controversy around media in preschool with meaningful models of integration*. Presentation for the National Educational Telecommunications Association NETA 2020, Arlington VA.
- Johnson, P., Lowenstein, D., Lawrence, L., Lund, A., Pasnik, S., and Sweetman, S. (Jan 2020). *Creating content that moves the needle - What it takes & how we know!* Presentation for the National Educational Telecommunications Association NETA 2020, Arlington, VA.

- Jenkins, A, Sweetman, S. Borland, J. (2019, Oct). *Adaptive personalized learning for little engineers: STEM play with The Cat in the Hat Builds That app*. Panel presentation at the Connected Learning Summit, University of California, Irvine.
- Brand, Sweetman, Kim, Shea, and Murray. (2019, Oct). *Science and engineering knowledge and language: A mixed method approach using the Cat in the Hat Knows a Lot About That*. Paper presentation at the Northeastern Educational Research Association Annual Conference in 2019. Turnbull, CT.
- Sweetman, S. (2019, Sept). *Unique challenges of teaching computing in elementary classrooms*. Challenges showcase presentation at STEM+C Annual Summit, Washington, DC.
- Sweetman, S. (2019, Sept). *Elementary teachers participation in research; Outreach and incentives*. Expertise exchange at STEM+C Annual Summit, Washington, DC.
- Sweetman, S. (2019, June). *Computational thinking across the elementary classroom*. Ignite Presentation at the International Society for Technology Education Conference, Philadelphia, PA.
- Orefice, Z , Shea, K., Stabile, C. & Sweetman, S. (2019, April) *How do I teach writing in my science class? Integrating NGSS and CCSS in middle school*. Presentation at the National Science Teacher Association National Convention, St. Luis, MO.
- Shea, K., Stabile, C., & Sweetman, S. (2018, March). *Integrating science and literacy: Take it to the next level*. Presentation at the National Science Teacher Association National Convention, Atlanta, GA.
- Shea, K., Sweetman, S., & Stabile, C. (2018, March). *Innovation STEMS from science: Engage in engineering*. Presentation at the National Science Teacher Association National Convention, Atlanta, GA.
- Sweetman, S., Mainzer, A., Mirkin, L., & Bartlett, C. (2018, March). *Reaching all children with PBS Kids and NGSS*. Presentation at the National Science Teacher Association National Convention, Atlanta, GA.
- Unger, S., Fogleman, J., & Sweetman, S. (2018, March). *Digital community of practice: What do veteran teachers talk about?* Presentation at the National Association for Research in Science Teaching Annual Conference, Atlanta, GA.
- Simensky, L., Greenwald, C., Mirkin, L. Sweetman, S., & Brown, B., (2017, Nov). *Enhancing science learning through children's media*. The National Association for the Education of Young Children Annual Conference, Atlanta, Georgia.
- Sweetman, S (2017). *Discover three-dimensional learning with the Cat in the Hat Knows A Lot About That: PBS Kids multimedia addresses NGSS*. Presentation at the National Science Teacher Association National Convention, Los Angeles, California.

### SELECTED FUNDED PROJECTS

- Principal Investigator. Sweetman, S. (2021-2024). *Guiding Education in Math and Science Project*. Funded by Local Education Agencies, \$2,477,544.
- Evaluator. Clapman, E., Shea, K., Sweetman, S. (2020-2022). Non-formal zoo education: A critical component of K-12 environmental literacy and science learning in a digital environment. Funded by the Institute of Museum and Library Services Discretionary Grant for \$81,000 with 10% for evaluation..
- Principal Investigator. Sweetman, S., Kim, H., Brand, S., Murray, K., & Shea K., (2019-2020). *Mixed Methods Approach to Investigating Science Knowledge, Skills, and Perceptions of Preschoolers who engage with Multimodal Ready To Learn Content*. Ready to Learn US Department of Education, \$257,000.
- Principal Investigator. Sweetman, S. (2018-2021). *Guiding Education in Math and Science Project*. Funded by Local Education Agencies, \$2,117,372.
- Principal Investigator. Sweetman, S., Fogleman, J., & Fay-Wolfe, V. (2018-2020). *Computing in Elementary School: An Exploration of Computational Thinking Approaches and Concepts Across Disciplines*. National Science Foundation, \$449,383.

Principal Investigator. Sweetman, S., & Stabile, C. (2017). *Understanding university-school partnerships; URI GEMS-Net and University of Southampton Maths and Science Project*. Funded by the Carnegie Foundation through the President's Office. \$5,000.

Advisory Board. Warschauer, M. & Bustamante, A. (2019-2021). *Using Conversational Agents to Foster Preschool Children's Science Learning and Engagement from Interactive Science Videos*. Funded by NSF, \$3,000,000.

Project Advisor. Corporation for Public Broadcasting and Public Broadcast Company (2015-2020). *Ready to Learn Content, Community, and Collaboration: Advancing Children's Learning Through Personalized Media Experiences*. Funded by the Department of Education for \$96,000,000.

**Grants Submitted and Pending**

Principal Investigator. Sweetman, S (2023-2027). Partnerships for Engaging with Novel Technology and Data Science. NSF Discovery Research K-12, \$2,962,464

Principal Investigator. Sweetman, S (2023-2027). Boys Improved Attitudes About Scientists (BIAS). Advancing Informal STEM Learning, \$ 2,851,448