Lauren E. Margulieux

Associate Professor of the Learning Sciences
Director of the Snap Inc. Center for Computer and Teacher Education

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Department of Learning Sciences
Georgia State University
Atlanta, GA 30302-3978

EDUCATION

Ph.D. in Engineering Psychology, Minor in Education, 2016
Georgia Institute of Technology
Committee: Richard Catrambone (chair), F. Durso, M. Guzdial, W. Newstetter, & W. Rogers
Dissertation: *Using Subgoal Learning and Self-Explanation to Improve Programming Education*

M.S. in Engineering Psychology, 2014
Georgia Institute of Technology
Committee: Richard Catrambone (chair), F. Durso, and M. Guzdial
Thesis: *Subgoal Labeled Instructional Text and Worked Examples in STEM Education*

B.A. in Psychology, 2010
Southwestern University
Summa Cum Laude

Texas A&M University, August 2007 – May 2008

PROFESSIONAL EXPERIENCE

Associate Professor of the Learning Sciences, Georgia State University	2022-present
Founding Director, Snap Inc. Center for Computer and Teacher Education, Georgia State University	2021-present
Assistant Professor of Learning Technologies, Georgia State University	2016-2022
Postdoctoral Scholar, Center for Teaching and Learning, Georgia Tech	2016
Graduate Teaching Assistant (Instructor of Record), Georgia Tech	2015-16
Graduate Research Assistant, Center for 21st Century Universities, Georgia Tech	2011-15
Human Factors Intern, Human Interfaces Inc.	2010-11
Peer Academic Mentor, Southwestern University	2009-10

Awards and Honors

Outstanding Tenure-Track Faculty Achievement Award, Georgia State University: $1500, 2024

Lasting Impact Award at International Computing Education Research Conference, 2023
Subgoal-Labeled Instructional Material Improves Performance and Transfer in Learning to Develop Mobile Applications

Best Reviewed Paper Award at International Computing Education Research Conference, 2020
What Do We Think We Think We are Doing?: Metacognition and Self-Regulation in Programming

John Henry "Fool's" Award at International Computing Education Research Conference, 2019
Spatial Encoding Strategy Theory: The Relationship between Spatial Skill and STEM Achievement

Georgia State University's College of Ed. and Human Development's Recognizing Scholarly Excellence program: semester-long sabbatical during 4th year, 2019

SIGCSE Technical Symposium Travel Grant: $850, 2019

Emerald/HETL Education Outstanding Doctoral Research Award: $1500, 2017

Early Career Workshop at CSCL 2017, Intl Society for the Learning Sciences: $1000, 2017

Young Scientist Travel Award, Indiana University CogSci Program and NSF: $1000, 2016

Outstanding Graduate Student, School of Psychology, Georgia Tech: $500, 2016

Chair's Award for Best Paper at International Computing Education Research Conference, 2015
Subgoals, Context, and Worked Examples in Learning Computing Problem Solving

Outstanding Graduate Student Instructor Finalist, Georgia Tech, 2015
Course: Research Methods for Human Subjects Research

Presidential Scholarship, Georgia Tech: $2750 per semester, 2011-2015

Outstanding Psychology Student, Southwestern University, Spring 2010

Psi Chi Regional Research Award: $300, Spring 2010
Shy to "Fly": Testing the Effectiveness of Self-presentation Strategies of Shy Individuals

SCHOLARSHIP AND PROFESSIONAL DEVELOPMENT

Funding

Corporate Gifts and Grants

Snap Inc. Center for Computer and Teacher Education
- Purpose: Endowment established by Snap Inc. and Georgia State University Research Foundation to support CS education in teacher preparation programs
- Position: Founding Director
- Other personnel: Calandra, B. D. (Senior Associate Director), Shapiro, B. R. (Associate Director), & Liao, Y-C. (Associate Director)
- Endowment: $7,000,000; Annual budget: $260,000

Google Community Partnership Grant
- Title: *Computing Integration Faculty Fellowship to Bring CS to Teacher Preparation*

- Purpose: To accelerate the Computing Integration Faculty Fellowship program, which works with faculty in Georgia State's College of Education and Human Development to integrate computing into preservice teacher preparation
- Position: Principal Investigator
- Project Dates: August 2022 – July 2025
- Budget: $161,568

Google Tech Education Research Grant
- Title: *How Does Integrated Computing Support Computing Education in Georgia Schools*
- Purpose: To examine how integrated computing activities are used in non-CS classrooms across Georgia and how much CS instruction students receive outside of CS classrooms
- Position: Principal Investigator
- Other personnel: Cox, B. & Williams, L. (Georgia Dept. of Education)
- Project Dates: January – December 2023
- Budget: $87,100 (including $14,400 cost sharing from Georgia Dept. of Education)

National Grant Awards

NSF:EDU – Racial Equity in STEM Education
- Title: *Integrating a Culturally Relevant Digital Curriculum into U.S. Science Dual Language Immersion Programs*
- Purpose: To bridge Indigenous knowledge from Nahua and Totonaca communities in Mexico with Western science, aligned with the Next Generation Science Standards, to combat epistemicide and promote racial equity for Latino youth in middle schools
- Position: Co-Principal Investigator
- Other personnel: Kasun, S. (PI, Georgia State), Mejia, J. A. (PI, University of Texas San Antonio), Christiansen, S. (Co-PI, University of Texas San Antonio)
- Project dates: August 2024 – July 2027
- Budget: $1,111,845

NSF:CISE – Improving Undergraduate STEM Education: Computing in Undergraduate Education (IUSE:CUE)
- Title: *Microcredentials for Integrating Computing Responsibly into Other Domains (MICRO) in Colleges of Education* (#2241914)
- Purpose: To implement Georgia State's model of CS education in teacher preparation programs at other colleges of education and study the contextual features that affect the adaption of existing resources to applications in new programs
- Position: Principal Investigator
- Other personnel: Liao, Y-C. (Co-PI, Georgia State), Calandra, B. (Co-PI, Georgia State), Karlin, M. (Co-PI, CSU Dominguez Hills)
- Project dates: August 2023 – July 2024
- Budget: $418,509

NSF:EHR – Improving Undergraduate STEM Education (IUSE) Level 2
- Title: *Expanding Subgoal Labels for Imperative Programming to Further Improve Student Learning Outcomes* (#2111578)

- Purpose: To expand the development of subgoal labeled materials to include Python and advanced topics in Java and to support other universities in using these materials
- Position: Senior Personnel
- Other personnel: Morrison, B. B. (PI, University of Nebraska Omaha), Decker, A. (Co-PI, University at Buffalo), Bart, A. C. (Senior Personnel, University of Delaware)
- Project dates: August 2021 – July 2024
- Budget: $599,941

NSF:EHR – Faculty Early Career Development Program (CAREER)
- Title: *Spreading Computational Literacy Equitably via Integration of Computing in Preservice Teacher Prep* (#1941642)
- Purpose: To examine which computing concepts a fundamental computational literacy should include and how to teach them across the curriculum
- Position: Principal Investigator
- Project dates: July 2020 – June 2025
- Budget: $489,631

NSF:CISE – Early-concept Grants for Exploratory Research (EAGER)
- Title: *Microcredentials for Integrating Computing Responsibly into Other Domains (MICRO;* #2016010*)*
- Purpose: To develop self-paced, online courses aligned with microcredentials for teachers to learn and demonstrate competency related to integrated computing
- Position: Co-Principal Investigator
- Other personnel: Calandra, B. (PI, Georgia State), Cox, Bryan (Co-PI, Georgia Dept. of Ed), Abell, O. & Sykora, C. (Consultants, Intl Society for Technology in Education)
- Project dates: June 2020 – May 2022
- Budget: $299,182

*US Department of Education – Teacher Quality Partnership
- Title: *NURTURE: Network for Urban and Rural Teachers United for Residency Engagement* (U336S190026)
- Purpose: To support teacher residents in rural communities through certification and the first years of teaching
- Position: Senior Personnel
- Other personnel: Benson, G. (PI), Ogletree, S., Patterson, D., and Feinberg, J. (Co-PIs)
- Project dates: October 2019 – September 2024
- Budget: $7,038,676

* Recipient of American Educational Research Association's Claudia A. Balach School University Partnership Research SIG 2024 Award

NSF:EHR – Improving Undergraduate STEM Education (IUSE) Level 1
- Title: *Developing and Assessing Subgoal Labels for Imperative Programming to Improve Student Learning Outcomes* (#1712231)
- Purpose: To develop and test subgoal labeled instructional materials for an introductory Java programming course
- Position: Co-Principal Investigator
- Other personnel: Morrison, B. B. (PI, University of Nebraska Omaha), Decker, A. (Co-PI, University at Buffalo)

- Project dates: August 2017 – July 2021
- Budget: $299,927

NSF:CISE – Technical Assistance Workshop for CSforAll:RPP Submission
- Title: *Technical Assistance Workshop on Researcher Practitioner Partnerships for CSforAll:RPP in Atlanta, Georgia* (#1945313)
- Purpose: To host a workshop that supports the development of teams and skills needed to create effective researcher practitioner partnerships in computing education
- Position: Principal Investigator
- Other personnel: Calandra, B. (Co-PI)
- Project dates: October 2019 – June 2021
- Budget: $94,951

APF COGDOP Graduate Research Scholarship
- Title: *Subgoal-Oriented Instructional Text and Worked Examples in STEM Education*
- Purpose: To test the efficacy of different types of subgoal labeled instructional materials
- Position: Principal Investigator
- Project dates: January 2013 – January 2014
- Budget: $1000

Internal Grant Awards

Georgia State University, College of Ed. and Human Dev., Technology-Infusion Grants
- *Discipline-Inclusive Introduction to Computational Thinking Concepts and Activities,* collaborator: Caroline Sullivan, budget: $500, Spring 2019
- *Algebra with Bootstrap for the Secondary Mathematics Methods Course*, collaborator: Pier Junor Clarke, budget: $500, Spring 2019
- *Utilizing Pencil Code to Teach Computational Thinking for the Middle Childhood Science Methods Course,* collaborators: Natalie King and Patrick Enderle, budget: $500, Spring 2019

Publications

Refereed Journal Articles

Numbering system: J# = Journal article

Italics indicate student author

[J27] *Parkinson, J.* & **Margulieux, L. E.** (accepted). Improve CS performance at all levels by developing spatial skill. *Communications of the ACM.*

[J26] **Margulieux, L. E.**, Liao, Y-C., *Anderson, E.*, Parker, M. C., & Calandra, B. D. (2024). Intent and extent: Computer science concepts and practices in integrated computing. *ACM's Transactions on Computing Education, 24*(3), 1-23. https://doi.org/10.1145/3664825

[J25] Kasun, G. S., Liao, Y-C., **Margulieux, L. E.**, & *Woodall, M.* (2024). Unexpected outcomes from an AI education course among education faculty: Toward making AI accessible with marginalized youth in urban Mexico. *Frontiers in Education, 9,* 1368604. https://doi.org/10.3389/feduc.2024.1368604

[J24] Brown, N. C. C., Hermans, F. F. J., & **Margulieux, L. E.** (2024). Ten things software developers should learn about learning. *Communications of the ACM, 67* (January), 78-87. https://doi.org/10.1145/3584859

Video feature: https://vimeo.com/885743448

[J23] **Margulieux, L. E.**, Prather, J., *Rahimi, M., & Uzun, G. C.* (2023). Leverage biology to learn rapidly from mistakes without feeling like a failure. *Computing in Science and Engineering, 25*(2, March/April), 44-49. https://doi.org/10.1109/MCSE.2023.3297750

[J22] **Margulieux, L. E.** (2023). New approach to teaching computer science could broaden the subject's appeal. *The Conversation*. https://theconversation.com/new-approach-to-teaching-computer-science-could-broaden-the-subjects-appeal-205171

[J21] **Margulieux, L. E.**, Parker, M. C., *Uzun, G. C.*, & Cohen, J. D. (2023). Levels of computing concepts used in computing integration activities across disciplines. *Journal of Technology and Teacher Education, 31*(2), 167-202. Waynesville, NC USA: Society for Information Technology & Teacher Education.

[J20] **Margulieux, L. E.,** Enderle, P., Junor Clarke, P. A., King, N., Sullivan, C., Zoss, M., & Many, J. (2022). Integrating Computing into Preservice Teacher Preparation Programs across the Core: Language, Mathematics, and Science. *Journal of Computer Science Integration, 5*(1), 1–16. https://doi.org/10.26716/jcsi.2022.11.15.35

[J19] *Cox, B.*, **Margulieux, L. E.**, & Darling-Aduana, J. (2022). Georgia online education option for broadening participation in K-12 computer science. *Policy Futures in Education.* Special Issue: Broadening Participation for All Students: Praxis and Policy towards Equity in 21st Computer Science Education. https://doi.org/10.1177/14782103221082752

[J18] Loksa, D., **Margulieux, L. E.,** Becker, B., Craig, M., Denny, P., & Prather, J. (2022). Metacognition and self-regulation in programming education: Theories and exemplars of use. *ACM Transactions on Computing Education, 22*(4), 1-31. https://doi.org/10.1145/3487050

[J17] **Margulieux, L. E.**, & Catrambone, R. (2021). Scaffolding problem solving with learners' own self explanations of subgoals. *Journal of Computing in Higher Education, 33*, 499-523. https://doi.org/10.1007/s12528-021-09275-1

[J16] Enderle, P. J., **Margulieux, L. E.**, & King, N. S. (2021). What's in a wave? Using modeling and computational thinking to enhance students' understanding of waves. *The Science Teacher, 88*(March/April)*,* 54-58*.*

[J15] **Margulieux. L. E.**, & Yadav, A. (2021). Middle science computing integration with preservice teachers. *Journal of Computers in Mathematics and Science Teaching, 40*(1), 29-49.

[J14] Williams, K. Z., **Margulieux, L. E.**, & Lawrence, G. D. (2020). Teaching certificate redesign: Making a flexible preparing future faculty program. *To Improve the Academy, 39*(2). https://doi.org/10.3998/tia.17063888.0039.209

[J13] **Margulieux, L. E.,** Morrison, B. B., Franke, B., & *Ramilison, H.* (2020). Effect of implementing subgoals in Code.org's Intro to Programming unit in Computer Science

Principles. *ACM Transactions on Computing Education, 20*(4), 1-24. https://doi.org/10.1145/3415594

[J12] **Margulieux, L. E.**, Morrison, B. B., & Decker, A. (2020). Reducing dropout and failure rates in introductory programming with subgoal labeled worked examples. *International Journal of STEM Education, 7*(19). 1-16. https://doi.org/10.1186/s40594-020-00222-7

[J11] Morrison, B. B., **Margulieux, L. E.**, & Decker, A. (2020). The curious case of loops. *Computer Science Education, 30*(2), 127-154. https://doi.org/10.1080/08993408.2019.1707544

[J10] Kim, M. K., & **Margulieux, L. E.** (2020). An exploratory study of learner changes during a short-term exposure to hybrid learning. *International Journal of Learning Technology, 15*(1), 66-81.

*[J9] **Margulieux, L. E.** (2020). Spatial Encoding Strategy theory: The relationship between spatial skill and STEM achievement. *ACM Inroads, 11*(1), 65-75. https://doi.org/10.1145/3381891

*Reprint of paper awarded John Henry "Fool's" Award at ICER 2019

[J8] *Ketenci, T. A.*, Calandra, B., **Margulieux, L. E.**, & Cohen, J. (2019). The relationship between learner characteristics and student outcomes in a middle school computing course: An exploratory analysis using structural equation modeling. *Journal of Research on Technology in Education, 51*(1), 63-76. https://doi.org/10.1080/15391523.2018.1553024

[J7] **Margulieux, L. E.**, *Ketenci, T. A.*, Decker, A. (2019). Review of measurements used in computing education research and suggestions for increasing standardization. *Computer Science Education, 29*(1), 49-78. https://doi.org/10.1080/08993408.2018.1562145

[J6] **Margulieux, L. E.**, & Catrambone, R. (2019). Finding the best types of guidance for constructing self-explanations of subgoals in programming. *Journal of the Learning Sciences, 28*(1), 108-151. https://doi.org/10.1080/10508406.2018.1491852

[J5] **Margulieux, L. E.**, Catrambone, R., & *Schaeffer, L. M.* (2018). Varying effects of subgoal labeled expository text in programming, chemistry, and statistics. *Instructional Science*, *46*(5), 707-722. https://doi.org/10.1007/s11251-018-9451-7

[J4] **Margulieux, L. E.,** McCracken, W. M., & Catrambone, R. (2016). A taxonomy to define courses that mix face-to-face and online learning. *Educational Research Review, 19*, 104-118. https://doi.org/10.1016/j.edurev.2016.07.001

[J3] **Margulieux, L. E.,** Chen, D., McDonald, J. D., Bujak, K. R., Gable, T. M., Darling, C. M., Schaeffer, L. M., & Barg-Walkow, L. H. (2016). Online collaboration applications evaluated by ease of use. *Ergonomics in Design*, *24*(2), 21-30. https://doi.org/10.1177/1064804615611273

[J2] **Margulieux, L. E.,** & Catrambone, R. (2016). Improving problem solving with subgoal labels in expository text and worked examples. *Learning and Instruction, 42*, 58-71. https://doi.org/10.1016/j.learninstruc.2015.12.002

[J1] **Margulieux, L. E.,** Catrambone, R., & Guzdial, M. (2016). Employing subgoals in computer programming education. *Computer Science Education*, *26*(1), 44-67. https://doi.org/10.1080/08993408.2016.1144429

Highly-Competitive Conference Proceedings

P# = Conference proceeding published by ACM and equivalent to a journal article

[P17] **Margulieux, L. E.,** Prather, J., Reeves, B., Becker, B., *Uzun, G. C.*, Loksa, D., Leinonen, J., & Denny, P. (2024). Self-regulation, self-efficacy, and fear of failure interactions with how novices use LLMs to solve programming problems. *Proceedings of the 2024 Conference on Innovation and Technology in Computer Science Education*, pp. 276-282. New York, NY: ACM. https://doi.org/10.1145/3649217.3653621

[P16] *Salguero, A.*, *Villegas Molina, I.*, Porter, L., **Margulieux, L. E.**, & Cutts, Q. (2024). Applying CS0/CS1 student success factors and outcomes to Biggs' 3P educational model. *Proceedings of the 55th SIGCSE Technical Symposium* (pp. 1168-1174). New York. NY: ACM. https://doi.org/10.1145/3626252.3630781

[P15] Parker, M. C., Davidson, M. J., Kao, Y. S., **Margulieux, L. E.**, *Tidler, Z. R.*, & Vahrenhold, J. (2023). Toward CS1 content subscales: A mixed-methods analysis of an introductory computing assessment. *Proceedings of the 23rd Koli Calling International Conference on Computing Education Research* (13 pages). New York, NY: ACM. https://doi.org/10.1145/3631802.3631828

[P14] Yadav, A., Connolly, C., Berges, M., Chytas, C., Franklin, C., Hijón-Neira, R., Macann, V., **Margulieux, L. E.**, Ottenbreit-Leftwich, A., & Warner, J. R. (2022). A review of international models of computer science teacher education. *Proceedings of the 2022 Working Group Reports on Innovation and Technology in Computer Science Education*, pp. 65-93. New York, NY: ACM. https://doi.org/10.1145/3571785.3574123.

[P13] Prather, J., **Margulieux, L. E.**, Whalley, J., Denny, P., Reeves, B. N., Becker, B., Singh, P., *Powell, G.*, & Bosch, N. (2022). Getting by with help from my friends: Group study in introductory programming understood as socially share regulation. *Proceedings of the Eighteenth Annual Conference on International Conference on International Computing Education Research,* Volume 1 (pp. 164-176). New York, NY: ACM. https://doi.org/10.1145/3501385.3543970

[P12] **Margulieux, L. E.,** Denny, P., Cunningham, K., *Deutsch, M.,* & Shapiro, B. (2021). When wrong is right: The instructional power of multiple conceptions. *Proceedings of the Seventeenth Annual Conference on International Computing Education Research* (pp. 184-197). New York, NY: ACM. https://doi.org/10.1145/3446871.3469750.

*[P11] Prather, J., Becker, B., Craig, M., Denny, P., Loksa, D., & **Margulieux, L. E.** (2020). What do we think we think we are doing?: Metacognition and self-regulation in programming. *Proceedings of the Sixteenth Annual Conference on International Computing Education Research* (pp. 2-13). New York, NY: ACM. https://doi.org/10.1145/3372782.3406263.

*Best Reviewed Paper Award

*[P10] **Margulieux, L. E.** (2019). Spatial Encoding Strategy theory: The relationship between spatial skill and STEM achievement. *Proceedings of the Fifteenth Annual Conference on International Computing Education Research* (pp. 81-90). New York, NY: ACM. https://doi.org/10.1145/3291279.3339414

*John Henry "Fool's" Award

[P9] Decker, A., **Margulieux, L. E.**, Morrison, B. B. (2019). Using the SOLO Taxonomy to understand subgoal labels effect on problem solving processes in CS1. *Proceedings of the Fifteenth Annual Conference on International Computing Education Research* (pp. 209-217). New York, NY: ACM. https://doi.org/10.1145/3291279.3339405

[P8] **Margulieux, L. E.**, Morrison, B. B., & Decker, A. (2019). Design and pilot testing of subgoal labeled worked examples for five core concepts in CS1. *Proceedings of the 2019 Conference on Innovation and Technology in Computer Science Education* (pp. 548-553). New York, NY: ACM. https://doi.org/10.1145/3304221.3319756

[P7] *Parker, M. C., Solomon, A., Pritchett, B., Illingworth, D.*, **Margulieux, L. E.**, & Guzdial, M. (2018). Socioeconomic status and computer science achievement: Spatial ability as a mediating variable in a novel model of understanding. *Proceeding of the Fourteenth Annual Conference on International Computing Education Research* (pp. 97-105). New York, NY: ACM. https://doi.org/10.1145/3230977.3230987

[P6] **Margulieux, L. E.**, & Catrambone, R. (2017). Using learners' self-explanations to guide initial problem solving. *Proceeding of the Thirteenth Annual Conference on International Computing Education Research* (pp. 21-29). New York, NY: ACM. https://doi.org/10.1145/3105726.3106168

[P5] Morrison, B. B., Decker, A., & **Margulieux, L. E.** (2016). Learning loops: A replication study illuminates impact of HS courses. *Proceedings of the Twelfth Annual International Conference on International Computing Education Research* (pp. 221-230). New York, NY: ACM. https://doi.org/10.1145/2960310.2960330

[P4] Morrison, B. B., **Margulieux, L. E.**, Ericson, B., & Guzdial, M. (2016). Subgoals help students solve Parsons problems. In *Proceedings of ACM's SIG Computer Science Education Technical Symposium* (pp. 42-47). New York, NY: ACM. https://doi.org/10.1145/2839509.2844617

*[P3] *Morrison, B. B.*, **Margulieux, L. E.**, & Guzdial, M. (2015). Subgoals, context, and worked examples in learning computing problem solving. *Proceedings of the Eleventh Annual International Conference on International Computing Education Research* (pp. 21-29). New York, NY: ACM. https://doi.org/10.1145/2787622.2787733

*Chairs' Best Paper Award

[P2] **Margulieux, L. E.** & Catrambone, R. (2014). Improving problem solving performance in computer-based learning environments through subgoal labels. *Proceedings of the First ACM Conference on Learning @ Scale* (pp. 149-150). New York, NY: ACM. https://doi.org/10.1145/2556325. 2567853

*[P1] **Margulieux, L. E.**, Guzdial, M., & Catrambone, R. (2012). Subgoal-labeled instructional material improves performance and transfer in learning to develop mobile applications. *Proceedings of the Ninth Annual International Conference on International Computing Education Research* (pp. 71-78). New York, NY: ACM. https://doi.org/10.1145/2361276.2361291

*Lasting Impact Award

Edited Books and Special Issues

Zhang, C., **Margulieux, L. E.**, & Quinn, M. (in progress). Special Issue: Advancing Childhood Education with Artificial Intelligence: Opportunities, Challenges, and Future Directions. *Journal of Research in Childhood Education.*

Margulieux, L. E., & Morrison, B. B. (Eds.). (2019). Special Issue: Advancing Theory about the Novice Programmer. *Computer Science Education. 29*(2-3), 103-308.

Madden, A., **Margulieux, L. E.**, Goel, A. K., & Kadel, R. S. (Eds.). (2019). *Blended Learning in Practice: A Guide for Practitioners and Researchers.* Cambridge, MA: MIT Press.

Book Chapters Published in Edited Books

C# = Book chapter

[C8] **Margulieux, L. E.** (2023). Research Design and Methods for Scholarship of Teaching and Learning in Teacher Education. In C. Connolly & T. Ó. Ceallaigh (Eds.), *Innovating Assessment and Feedback Design in Teacher Education* (pp. 106-127). Routledge.

[C7] **Margulieux, L. E.**, Dorn, B., & Searle, K. (2019). Learning Sciences for Computing Education. In S. Fincher & A. Robins (Eds.), *Handbook of Computing Education Research* (pp. 208-230). Cambridge, UK: Cambridge University Press.

[C6] Robins, A., **Margulieux, L. E.**, & Morrison, B. B. (2019). Cognitive Sciences for Computing Education. In S. Fincher & A. Robins (Eds.), *Handbook of Computing Education Research* (pp. 231-275). Cambridge, UK: Cambridge University Press.

[C5] **Margulieux, L. E.** (2019). Blended Learning in an Upper-Level, Required Course on Research Methodology. In A. Madden, L. E. Margulieux, R. S. Kadel, & A. K. Goel (Eds.), *Blended Learning in Practice: A Guide for Practitioners and Researchers* (pp. 269-288). Cambridge, MA: MIT Press.

[C4] **Margulieux, L. E.**, & Kadel, R. S. (2019). Analyzing Quantitative and Qualitative Data for Blended Learning. In A. Madden, L. E. Margulieux, R. S. Kadel, & A. K. Goel (Eds.), *Blended Learning in Practice: A Guide for Practitioners and Researchers* (pp. 193-212). Cambridge, MA: MIT Press.

[C3] Kadel, R. S., & **Margulieux, L. E.** (2019). Research Methods in Blended Learning. In A. Madden, L. E. Margulieux, R. S. Kadel, & A. K. Goel (Eds.), *Blended Learning in Practice: A Guide for Practitioners and Researchers* (pp. 129-154). Cambridge, MA: MIT Press.

[C2] Schaeffer, L. M., **Margulieux, L. E.**, Chen, D., & Catrambone, R. (2016). Feedback via Educational Technology. In L. Lin & R. Atkinson (Eds.), *Educational Technologies: Challenges, Applications, and Learning Outcomes*. (Education in a Competitive and Globalizing World, pp. 59-72). New York, NY: Nova Science Publishers, Inc.

[C1] Durso, F. T., **Margulieux, L. E.**, & Blickensderfer, E. L. (2014). Human Factors. *Oxford Bibliographies Online: Psychology.* doi:10.1093/obo/9780199828340-0159

Refereed Conference Proceedings

Cohen, J. D., **Margulieux, L. E.**, Renken, M., & Jones, W. M. (2020). Conclusions from the validation of a vignette-based instrument to measure maker mindsets. In Gresalfi, M. and Horn, I. S. (Eds.) *The Interdisciplinarity of the Learning Sciences, 14th International*

Conference of the Learning Sciences (ICLS) 2020 Volume 3 (pp. 1649-1652). Nashville, TN: International Society of the Learning Sciences.

Margulieux, L. & Yadav, A. (2020). Middle Science Computing Integration with Preservice Teachers. In D. Schmidt-Crawford (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 63-72). Association for the Advancement of Computing in Education (AACE).

Decker, A., **Margulieux, L. E.**, & Morrison, B. B. (2019). Developing subgoal labels for imperative programming to improve student learning outcomes. In *Proceedings of the 2019 ASEE Annual Conference and Exposition*.

Lewis, C., Guzdial, M., **Margulieux, L. E.**, *Nelson, G.*, & Porter, L. (2019). Negotiating varied research goals in computing education research. In *Proceedings of the 50th ACM Technical Symposium on Computer Science Education* (pp. 500-501). New York, NY: ACM. https://doi.org/10.1145/3287324.3287329

Morrison, B. B., Decker, A., & **Margulieux, L. E.** (2019). Using subgoal labeling in teaching CS1. In *Proceedings of the 50th ACM Technical Symposium on Computer Science Education* (pp. 1237). New York, NY: ACM. https://doi.org/10.1145/3287324.3287540

Decker, A., Schneider, J., & **Margulieux, L. E.** (2018). How engineering and computing students demonstrate critical thinking during required co-op work experiences. In *Proceedings of the 2018 Frontiers in Education Conference.* https://doi.org/10.1109/FIE.2018.8659164

Cohen, J., **Margulieux, L. E.**, Renken, M., Smith, S., & Jones, W. M. (2018). Maker Mindset: Measuring the Effect of Making. In Kay, J. and Luckin, R. (Eds.) *Rethinking Learning in the Digital Age: Making the Learning Science Count, 13th International Conference of the Learning Sciences (ICLS) Volume 3* (pp. 1505-1506). London, UK: International Society of the Learning Sciences.

Ericson, B., **Margulieux, L. E.**, & Rick, J. (2017). Solving Parsons problems versus fixing and writing code. Proceedings of *17th Koli Calling International Conference on Computing Education Research* (pp. 20-29). New York, NY: ACM. https://doi.org/10.1145/3141880.3141895

Margulieux, L. E. (2017). Subgoal learning in online STEM instruction. In Smith, B. K., Borge, M., Mercier, E., and Lim, K. Y. (Eds.). *Making a Difference: Prioritizing Equity and Access in CSCL, 12th International Conference on Computer Supported Collaborative Learning (CSCL) 2017 Volume 1*. (pp. 932-933), Philadelphia, PA: International Society of the Learning Sciences.

Margulieux, L. E., & Catrambone, R. (2016). Using subgoal learning and self-explanation to improve programming education. In A. Papafragou, D. Grodner, D. Mirman, & J.C. Trueswell (Eds.), *Proceedings of the 38th Annual Conference of the Cognitive Science Society* (pp. 2009-2014). Austin, TX: Cognitive Science Society.

Schaeffer, L. M., **Margulieux, L. E.**, & Catrambone, R. (2016). Interaction of instructional materials order and subgoal labels on learning in programming. In A. Papafragou, D. Grodner, D. Mirman, & J.C. Trueswell (Eds.), *Proceedings of the 38th Annual*

Conference of the Cognitive Science Society (pp. 271-276). Austin, TX: Cognitive Science Society.

Margulieux, L. E., Morrison, B. B., Guzdial, M., & Catrambone, R. (2016). Training learners to self-explain: Designing instructions and examples to improve problem solving. In *Proceedings of Transforming Learning, Empowering Learners: The International Conference of the Learning Sciences (ICLS) 2016.* International Society of the Learning Sciences [online].

Margulieux, L. E. & Catrambone, R. (2015). Varying effects of subgoal labeled procedural instructions in STEM learning [Abstract]. *Proceedings of the 37th Annual Meeting of the Cognitive Science Society,* 2942.

Margulieux, L. E., McCracken, W. M., & Catrambone, R. (2015). Mixing in-class and online learning: Content meta-analysis of outcomes for hybrid, blended, and flipped courses. In O. Lindwall, P. Hakkinen, T. Koschmann, P. Tchounikine, & S. Ludvigsen (Eds.) *Exploring the Material Conditions of Learning: The Computer Supported Collaborative Learning (CSCL) Conference* (pp. 220-227)*, 2*. Gothenburg, Sweden: The International Society of the Learning Sciences.

Margulieux, L. E. & Catrambone, R., (2014). Improving programming instruction with subgoal labeled instructional text. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.) *Proceedings of the 36th Annual Conference of the Cognitive Science Society* (pp. 952-957). Austin, TX: Cognitive Science Society.

Margulieux, L. E., Bujak, K. R., McCracken, W. M., & Majerich, D. (2014). Hybrid, blended, flipped, and inverted: Defining terms in a two-dimensional taxonomy [Online]. *Proceedings of the 12th Annual Conference of the Hawaii International Conference on Education* (pp. 2394-2402).

Margulieux, L. E., Catrambone, R., & Guzdial, M. (2013). Subgoal labeled worked examples improve K-12 teacher performance in computer programming training. In M. Knauff, M. Pauen, N. Sebanz, & I. Wachsmuth (Eds.) *Proceedings of the 35th Annual Conference of the Cognitive Science Society* (pp. 978-983). Austin, TX: Cognitive Science Society.

Desmond, P. A., **Margulieux, L. E.**, English, A. B., Burbey, A. L., & Matthews, G. (2010). Emotional intelligence and driver stress. In *Proceedings of the Human Factors and Ergonomics Society.*

Bollich, K. L., Mathis, S. E., Laas, W. L., Giuliano, T. A., & **Margulieux, L. E.** (2010). Perceived effectiveness of strategies for improving perceptions of shy individuals. In *Proceedings of the Association for Psychological Science*.

<u>Unrefereed Publications and Datasets</u>

Margulieux, L. E., Anderson, E., & Rahimi, M. (2024). Programming and computational thinking concepts and contextual factors in integrated computing activities in U.S. schools [Dataset]. *Dryad.* https://doi.org/10.5061/dryad.ttdz08m6v

Margulieux, L. E., Parker, M. C., & Uzun, G. C. (2024). Computing integrated activities scored for programming concepts [Dataset]. *Dryad*. https://doi.org/10.5061/dryad.k0p2ngfgj

Margulieux, L. E., Liao, Y-C., Anderson, E., Parker, M., & Calandra, B. (2024). Extended computing integrated curricula scored for K-12 CS standards [Dataset]. *Dryad*. https://doi.org/10.5061/dryad.j6q573nnt

Margulieux, L. E., Liao, Y-C., Shapiro, B. R., & Calandra, B. (2024). Recommendations for computer science education in colleges of education. *Authorea.* https://doi.org/10.22541/au.171052957.79200843/v1

Rahimi, M., **Margulieux, L. E.**, Prather, J., *Cetin, G*., & *Kimmel, B*. (2023). Benefits of failure on neuroplasticity and tools for persistence. In *Proceedings of the 2023 ACM Conference on International Computing Education Research,* Volume 2. https://doi.org/10.1145/3568812.3603470

Morrison, B. B., Decker, A., **Margulieux, L. E.**, Bart, A. C. (2022). Subgoals for CS1 in Python. In *Proceedings of the 2022 ACM Conference on International Computing Education Research,* Volume 2 (pp. 44-45). https://doi.org/10.1145/3501709.3544283

Yadav, A., Connolly, C., Berges, M., Chytas, C., Franklin, C., Hijón-Neira, R., Leftwich, A., **Margulieux, L.**, Macann, V., & Warner, J. R. (2022). Models for computer science teacher preparation: Developing teacher knowledge. In *Proceedings of the 27th ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE '22), 2*. 568–569. https://doi.org/10.1145/3502717.3532166

Margulieux, L. E., & Morrison, B. B. (2019). Guest editorial on special issue: Advancing theory about the novice programmer. *Computer Science Education. 29*(2-3), 103-105. https://doi.org/10.1080/08993408.2019.1613091

Margulieux, L. E. (2018). Effects of subgoal labeled expository text differ across programming, statistics, and chemistry. *Annual Meeting of the American Education Research Association.*

Peek, M. E., Majerich, D. M., **Margulieux, L. E.**, Stephens, A. B., Braga, R. A., & Madden, A. (2015). Teaching college faculty to interconnect chemistry and biochemistry experiments via the "Threading Flavones" project. In *Proceedings of the Chemistry Education Research & Practice of the Gordon Research Conference*.

Margulieux, L. E. & Catrambone, R. (2014). Subgoal labels in worked examples, but not general text, aid statistics learning [Abstract]. *Abstracts of the Psychonomic Society*, *19*, 129.

Margulieux, L. E. & Catrambone, R. (2013). Multidimensional scaling for comparing problem solving knowledge to an ideal [Abstract]. *Abstracts of the Psychonomic Society*, *18*, 191.

Margulieux, L. E., Catrambone, R., & Guzdial, M. (2012). Subgoals improve performance in computer programming construction tasks [CD]. *Proceedings of the EARLI SIG 6&7 Conference* (pp. 60-62).

Margulieux, L. E., Giuliano, T. A., Bollich, K. L., Mathis, S. E., & Laas, W. L. (2010). Introverted but not shy: A new perspective on the measurement of introversion. In *Proceedings of the Southwestern Psychological Association*.

Mathis, S. E., Laas, W. L., Bollich, K. L., Giuliano, T. A., & **Margulieux, L. E.** (2010). Shy to "fly": Testing the effectiveness of self-presentation strategies of shy individuals. In *Proceedings of the Southwestern Psychological Association*.

Presentations

Invited Talks

Margulieux, L. E. (2023). *Computing Across the Curriculum: CS Knowledge and Skills that Everyone Values.* Keynote address to the International Conference on Informatics in Schools. Lausanne, Switzerland. https://www.youtube.com/watch?v=djwvA-YFEZY

Margulieux, L. E. (2023). *Computing education research methods and design.* Presentation to the Media, Digital Technology, and Informatics group hosted by Haute École Pédagogique Vaud. Lausanne, Switzerland.

Margulieux, L. E. (2023). *Computing education research methods and design.* Presentation to the Computer Science Education Research group hosted by Vrije Universiteit. Amsterdam, Netherlands.

Margulieux, L. E. (2023). *Building theory in computing education.* Presentation to the Computer Science Teacher program hosted by Vrije Universiteit. Amsterdam, Netherlands.

Margulieux, L. E. (2023). *Things software developers should learn about learning.* Presentation at the It Will Never Work in Theory event, Toronto, Canada (online). https://neverworkintheory.org/ and https://www.youtube.com/watch?v=XGF8ljfL4ZA

Margulieux, L. E. (2023). *Learning sciences and computing education research: Theories, methods, and designs.* Presentation hosted by University of California San Diego, San Diego, CA (online).

Margulieux, L. E. (2022). *Building theory in computing education.* Presentation hosted by the Kenneth C. Griffin Computer Science for All Initiative at University of Florida. Gainesville, FL.

Margulieux, L. E. (2022). *The causal connection between spatial skills and STEM skills.* Presentation and workshop at the Spatial Skills Summit, hosted by the Centre for Computer Science Education, University of Glasgow, Glasgow, Scotland (online).

Margulieux, L. E. (2022). *Computing education research methods and design.* Presentation to the Computers + Education Research Seminar hosted by University of Illinois at Urbana-Champaign. Champaign, IL (online).

Margulieux, L. E. (2022). *Engineering education research methods and design.* Presentation and workshop hosted by The Ohio State University's Engineering Education Department. Columbus, OH (online).

Margulieux, L. E. (2022). *Building theory in STEM education: Multiple conceptions theory.* Presentation at the Scottish Informatics & Computer Science Alliance (SICSA) Distinguished Speaker Seminar, Centre for Computer Science Education, University of Glasgow, Glasgow, Scotland.

Margulieux, L. E. (2022). *Computing education research methods and design.* Presentation and workshop at the Scottish Informatics & Computer Science Alliance (SICSA) Distinguished Speaker Seminar, Centre for Computer Science Education, University of Glasgow, Glasgow, Scotland.

Margulieux, L. E. (2022). *Building theory in STEM education.* Presentation at the GVU Brown Bag Series, Georgia Institute of Technology, Atlanta, GA (online).

Margulieux, L. E. (2021). *Building theory in computing education.* Presentation hosted by Michigan State University's Educational Psychology and Educational Technology program. East Lansing, MI.

Margulieux, L. E. (2021). *Building theory in STEM education.* Presentation to University of Michigan's Cognitive Science Seminar. Ann Arbor, MI.

Margulieux, L. E. (2021). *Building theory in computing education.* Presentation to the Brown University Computing Education Group. Providence, RI (online).

Margulieux, L. E. (2021). *Learning sciences and computing education research: Theory and research design.* Presentation to the Brown University Computing Education Group. Providence, RI (online).

Margulieux, L. E. (2020). *Learning sciences and computing education research: Theory and research design.* Keynote address to the CSEdGrad Conference (online). Recording available at https://www.csedgrad.org/conference

Margulieux, L. E. (2020). *Online and hybrid instruction for computer science classrooms.* Presentation to the Raspberry Pi Foundation Research Symposium. London, UK (online). Recording available at https://www.raspberrypi.org/computing-education-research-online-seminars/#online-and-hybrid-instruction-for-computer-science-classrooms

Margulieux, L. E., & Goel, A. (2019). *Blended learning in practice.* Presentation to the Provost Teaching and Learning Fellows, Center for Teaching and Learning, Georgia Institute of Technology, Atlanta, GA.

Margulieux, L. E. (2019). *Mixing face-to-face and online learning: Instructional methods that affect learning.* Presentation to the Cognitive Science Seminar Series, Psychology Department, Georgia State University, Atlanta, GA.

Margulieux, L. E. (2018). *Helping computer science students, especially online learners, become better problem solvers.* Presentation at the GVU Brown Bag Series, Georgia Institute of Technology, Atlanta, GA.

Margulieux, L. E. (2017). *Mixing face-to-face and online learning: Instructional methods that affect learning.* Presentation to the College of Information Science and Technology, University of Nebraska Omaha, Omaha, NE.

Margulieux, L. E. (2014). *Mixing face-to-face and online learning: Instructional methods that affect learning.* Presentation at the C21U Seminar Series, Atlanta, GA. https://www.youtube.com/watch?v=fd0o96s3Utc

Margulieux, L. E. (2013). *Hybrid, blended, flipped, and inverted classrooms: What do they mean and why do they matter?* Presentation at the GVU Brown Bag Series, Georgia Institute of Technology, Atlanta, GA.

Workshops and Panels

Shugart Walker, A. (moderator), Cox, B., & Margulieux, L. E. (2023). *Computer Science Education for Social Impact.* Panel at the off-site meeting for Google's Education for Social Impact Outreach team, Atlanta, GA.

Margulieux, L. E. (2023). *Computer Science for Teaching Secondary Math*. Workshop at the Georgia MathCON hosted by Georgia Department of Education, Atlanta, GA.

Negron, A. (moderator), Culp, K., Dovi, B., Margulieux, L. E., Sherwood, H., & Tofel-Grehl, C. (2023). *Building Teacher Capacity to Support Interdisciplinary Computational Thinking.* Panel at the DRK-12 PI meeting hosted by NSF, Crystal City, VA.

McCulloch, C. (moderator), Lombardi, D., & Margulieux, L. E. (2023). *Developing DRK-12 Proposals.* Panel for the CADRE Fellows program hosted by NSF (online).

DeLyser, L. A. (moderator), Barrett, J., Margulieux, L. E., Mehta, S., & Minaiy, M. (2023). *CSforEd: CS in Schools of Education Models and Approaches.* Panel presented by CSforALL (online).

Margulieux, L. E. (moderator), Enderle, P. J., Jessup, N. A., Kasun, G. S., & Zhang, C (2023). *Non-CS Education Faculty Perspectives on Integrated Computing.* Panel at the CS Education in Preservice Teacher Preparation Programs invitation-only workshop funded by National Science Foundation, Atlanta, GA.

Margulieux, L. E. (2023). *Applying for an NSF CAREER Award.* Presentation for the College of Education and Human Development, Georgia State University, Atlanta, GA.

DeLyser, L. A. (moderator), Camos, S., & Margulieux, L. E., (2022). *All Teachers Learn CS: Pre-Service Education Models.* Panel at CSEdCon hosted by Code.org, Fort Lauderdale, FL.

DeLyser, L. A. (moderator), Israel, M., Karlin, M., Margulieux, L. E., Villa, E. (2022). *CSforEd: Schools of Education Implementing Computer Science Education.* Panel presented by CSforALL (online).

Paul, B. (moderator), Margulieux, L. E., & Pandya, J. (2022). *Investing in our future: 1000x impact.* Panel at the DEI Innovation Summit hosted by Snap Inc. (online). https://youtu.be/FNnlPFiKbxY

Pinder, N., Sykora, C., Margulieux, L. E., & Cox, B. (2022). *Digital Problem-Solving: Integrating Computational Thinking Across the Curriculum.* Panel at the International Society for Technology in Education Conference. New Orleans, LA.

Sykora, C., Pinder, N., Margulieux, L. E., & Cox, B. (2022). *Bringing Computational Thinking to More Content Areas by Inviting Curriculum Leaders to the Conversation.* Panel at the International Society for Technology in Education Conference. New Orleans, LA.

Henson, C. (moderator), Aguda, A., Margulieux, L. E., & Vo, T. (2022). *Women's Leadership in STEM*. Panel hosted by the Georgia State Women's Philanthropy Network and Alumni Association. Atlanta, GA. https://giving.gsu.edu/wpn-events/

Margulieux, L. E. (2022). *Drawing with Geometry: Creative and Technical Skills in Computing Integration Activities.* Workshop at the Academy for Future Teachers, Atlanta, GA.

Margulieux, L. E. (2022). *Integration of Computing Education to Support Learning Objectives in English, Math, and Science*. Workshop at the CS4GA CS Summit: Computing as a Fundamental Literacy, Atlanta, GA (online).

Margulieux, L. E. (moderator), Beck, A. D., Caldwell, J., & Leftwich, A. (2022). *Integration of Computing Education*. Panel at the CS4GA CS Summit: Computing as a Fundamental Literacy, Atlanta, GA (online).

Iyer, S., Gozem, S., Margulieux, L. E., Ouellet, M., & Skums, P. (2021). *NSF CAREER Awards: Tips and Advice for Proposal Preparation.* Panel hosted by Georgia State University's Office of University Research Services and Administration. Atlanta, GA (online).

Sykora, C., Pinder, N., Margulieux, L. E., Calandra, B., & Cox, B. (2021). *Computational Thinking Competencies and Microcredentials in Preservice.* Panel at the International Society for Technology in Education Conference (online).

Margulieux, L. E. (2021). *Drawing with Geometry: Creative and Technical Skills in Computing Integration Activities.* Workshop at the Academy for Future Teachers, Atlanta, GA (online).

Diaz, L. (moderator), Carpenter-Powell, R., England, H., Fluellen, M., & Margulieux, L. E. (2021). *GA CS Educators Speak Up and Speak Out about CS Ed.* Panel at the CS4GA CS Summit: Beyond Access, Atlanta, GA (online).

Chen, D-W., & Margulieux, L. E. (2021). *HFES Getting a Job.* Panel at Human Factors and Ergonomics Society meeting, Atlanta, GA (online).

Diaz, L. (moderator), Margulieux, L. E., & Payton, J. (2020). *Broadening Participation in Computing and Teacher Credentialing: An Interview with Jamie Payton and Lauren Margulieux*. Panel at CSTA and Constellations Virtual Computer Science PD Summit, Atlanta, GA (online).

Margulieux, L. E. (2020). *Activities that Integrate Computing to Solve Problems in Other Disciplines.* Presentation to the CSTA and Constellations Virtual Computer Science PD Summit, Atlanta, GA (online).

Shapiro, R. B., Margulieux, L. E., Holbert, N., Searle, K., Tissenbaum, M., & DiSalvo, B. (2020). *Expanding the Field: How the Learning Sciences Might Further Computing Education Research.* Workshop at International Conference of the Learning Sciences, Nashville, TN (online).

Lewis, C. M., Margulieux, L. E., et al. (2020). *The Cambridge Handbook of Computing Education Research Summarized in 75 Minutes*. Panel at the 51st ACM Technical Symposium on Computer Science Education, Portland, OR (online). Recording available at https://www.youtube.com/watch?v=vcMFNTge2yQ&t=12s

Decker, A., Morrison, B. B., & Margulieux, L. E. (2020). *Using Subgoal Labeling in Teaching Introductory Programming*. Workshop at Consortium for Computing Sciences in Colleges – Northeastern Conference, Buffalo, NY.

DeLyser, L. A., Baskin, J., Childs, J., & Margulieux, L. E., (2019). *Finding a Home for Computer Science in Colleges of Education.* Panel at the CSforAll Summit, Salt Lake City, UT.

Margulieux, L. E. (2019). *Computational Thinking and Computing Integration.* Workshop for the GTRI Explorers' Guild, Atlanta, GA.

Margulieux, L. E., Kadel, R., & Goel, A. (2019). *Blended Learning in Practice.* Panel hosted by the Center for 21st Century Universities, Georgia Institute of Technology, Atlanta, GA.

Morrison, B. B., Decker, A., & Margulieux, L. E. (2019). *Using Subgoal Labeling in Teaching CS1.* Workshop at 50th ACM Technical Symposium on Computer Science Education, Minneapolis, MN.

Cox, B., Margulieux, L. E., Haynes, M., & Hoptroff, S. (2018). *A More Holistic Approach to Computer Science.* Panel at the Future Workforce Conference hosted by honorCode, Atlanta, GA.

Conference Presentations as Presenting Author

Rahimi, M., Margulieux, L. E., Prather, J., *Uzun, G. C.*, & *Kimmel, B*. (2023, August). *Benefits of failure on neuroplasticity and tools for persistence*. Paper presented at the Nineteenth Annual Conference on International Computing Education Research. Chicago, IL.

Prather, J., Margulieux, L. E., Whalley, J., Denny, P., Reeves, B. N., Becker, B., Singh, P., *Powell, G.*, & Bosch, N. (2022, August). *Getting by with help from my friends: Group study in introductory programming understood as socially share regulation.* Paper presented at the Eighteenth Annual Conference on International Computing Education Research. Lugano, Switzerland.

Margulieux, L. E., Denny, P., Cunningham, K., *Deutsch, M.,* & Shapiro, B. (2021, August). *When wrong is right: The instructional power of multiple conceptions.* Paper presented at the Seventeenth Annual Conference on International Computing Education Research. Charleston, SC. (online due to COVID-19). https://youtu.be/a-EPI0LQMQ8

Prather, J., Becker, B., Craig, M., Denny, P., Loksa, D., & Margulieux, L. E. (2020, August). *What do we think we think we are doing?: Metacognition and self-regulation in programming*. Paper presented at the Sixteenth Annual Conference on International Computing Education Research. Dunedin, New Zealand (online). https://youtu.be/5jL4n0QH8qE

Margulieux, L. E., & Yadav, A. (2020, April). *Middle science computing integration with preservice teachers.* Paper presented at the Society for Information Technology and Teacher Education 2020 Conference. New Orleans, LA (online).

Margulieux, L. E. (2019, August). *Spatial Encoding Strategy theory: The relationship between spatial skill and STEM achievement*. Paper presented at the Fifteenth Annual International Conference on International Computing Education Research. Toronto, Canada.

Margulieux, L. E., Decker, A., & Morrison, B. B. (2019, April). *Subgoal labels effect on problem solving processes in CS1*. Poster presented at the Computer Science + Learning Sciences Symposium at Northwestern University. Evanston, IL.

Lewis, C., Guzdial, M., Margulieux, L. E., *Nelson, G.*, & Porter, L. (2019, February). *Negotiating varied research goals in computing education research*. Panel presented at the 50th SIGCSE Technical Symposium. Minneapolis, MN.

Morrison, B. B., Decker, A., & Margulieux, L. E. (2019, February). *Using subgoal labeling in teaching CS1*. Workshop presented at the 50th SIGCSE Technical Symposium. Minneapolis, MN.

Cohen, J., Margulieux, L. E., Renken, M., Smith, S., & Jones, W. M. (2018, June). *Maker Mindset: Measuring the Effect of Making.* Poster presented at International Conference of the Learning Sciences. London, UK.

Margulieux, L. E. (2018, April). *Effects of subgoal labeled expository text differ across STEM domains.* Paper presented at the Annual Meeting of the American Education Research Association. New York, NY.

Margulieux, L. E., & Catrambone, R. (2017, August). *Using learners' self-explanations to guide initial problem solving.* Paper presented at the Thirteenth Annual International Conference on International Computing Education Research. Tacoma, WA.

Margulieux, L. E., & Catrambone, R. (2016, August). *Using subgoal learning and self-explanation to improve programming education.* Paper presented at the 38th Annual Conference of the Cognitive Science Society. Philadelphia, PA.

Schaeffer, L. M., Margulieux, L. E., & Catrambone, R. (2016, August). *Interaction of instructional materials order and subgoal labels on learning in programming.* Poster presented at the 38th Annual Conference of the Cognitive Science Society. Philadelphia, PA.

Margulieux, L. E., Morrison, B. B., Guzdial, M., & Catrambone, R. (2016, June). *Training learners to self-explain: Designing instructions and examples to improve problem solving.* Paper presented at the International Conference of the Learning Sciences. Singapore.

Margulieux, L. E. & Catrambone, R. (2015, July). *Varying effects of subgoal labeled procedural instructions in STEM learning.* Poster presented at the 37th Annual Meeting of the Cognitive Science Society. Pasadena, CA.

Margulieux, L. E., McCracken, W. M., & Catrambone, R. (2015, June). *Mixing in-class and online learning: Content meta-analysis of outcomes for hybrid, blended, and flipped courses*. Paper presented at the 11th International Conference on Computer Supported Collaborative Learning. Gothenburg, Sweden.

Margulieux, L. E. & Catrambone, R. (2014, November). *Subgoal labels in worked examples, but not general text, aid statistics learning*. Poster presented at the 55th Annual Meeting of the Psychonomic Society. Long Beach, CA.

Margulieux, L. E. & Catrambone, R. (2014, March). *Improving problem solving performance in computer-based learning environments through subgoal labels.* Poster presented at the 1st ACM Conference on Learning @ Scale. Atlanta, GA.

Margulieux, L. E. & Catrambone, R. (2013, November). *Multidimensional scaling for comparing problem solving knowledge to an ideal*. Poster presented at the 54th Annual Meeting of the Psychonomic Society. Toronto, Canada.

Margulieux, L. E., Catrambone, R., & Guzdial M. (2013, August). *Subgoal labeled worked examples improve K-12 teacher performance in computer programming training*. Paper

presented at the 35th Annual Conference of the Cognitive Science Society. Berlin, Germany.

Margulieux, L. E., & Catrambone R. (2013, June). *Teaching subgoals to improve problem solving in engineering*. Poster presented the 2013 ASEE Annual Conference and Exposition. Atlanta, GA.

Margulieux, L. E., Catrambone, R., & Guzdial, M. (2012, September). *Subgoals improve performance in computer programming construction tasks*. Poster presented at the meeting of European Association for Research on Learning and Instruction SIG Learning and Instruction with Computers. Bari, Italy.

Margulieux, L. E., Giuliano, T. A., Bollich, K. L., Mathis, S. E., & Laas, W. L. (2010, April). *Introverted but not shy: A new perspective on the measurement of introversion.* Poster presented at the meeting of Southwestern Psychological Association. Dallas, TX.

TEACHING AND ADVISING

Teaching

Courses Taught

Computational Thinking and Human-Computer Interaction, LT 7501, Georgia State

Digital and Information Literacy, LT 7500, Georgia State

Theoretical and Cognitive Foundations of the Learning Sciences, LT 8100, Georgia State

Doctoral Research Seminar, LT 9850, Georgia State

Computer Skills for the Information Age, LT 2010, Georgia State

Critique of Education Research, LT 9900, Georgia State

Instructional Design, LT 7100, Georgia State

Engineering Psychology, PSY 2014, Georgia Tech

*Research Methods, PSY 2015, Georgia Tech

*Nominated for Outstanding Graduate Student Instructor

Introduction to Psychology, PSY 1011 (co-instructor), Georgia Tech

Courses Created

LT 8100 Theoretical and Cognitive Foundations of the Learning Sciences

LT 4010 Computing and Human-Computer Interaction

**LT 7500 Digital and Information Literacy

**LT 7501 Computational Thinking and Human-Computer Interaction

**LT 7502 Computer Science Instructional Methods

**LT 7503 Computer Science Concepts for Teachers

**Part of the Computer Science Teacher Endorsement

Textbook

Calandra, B. D., & **Margulieux, L. E.** (2020). *Digital Skills for the Knowledge Economy, 4th edition*. Dubuque, IA: Kendall Hunt.

Calandra, B. D., & **Margulieux, L. E.** (2017). *Digital Skills for the Knowledge Economy, 3rd edition*. Dubuque, IA: Kendall Hunt.

Advising

Doctoral Committees * Committee Chair

Completed

***Gozde Cetin Uzun**, Learning Technologies, Dissertation passed April 2024
Revisiting Self-Efficacy in CS: A Replication Study

Michael Maxwell, Learning Technologies, Dissertation passed March 2024
The Effects of a Gamified Flipped Classroom on First-Generation Low Income Student Motivation and Achievement in a Georgia High School Mathematics Class

***Bryan Cox**, Learning Technologies, Dissertation passed July 2023
Building Computer Science Teaching Capacity with Integrated Computing

Lauren Coleman, Early Childhood and Elementary Ed., Dissertation passed June 2023
URLiteracy: Analyzing the K-2 Georgia Standards of Excellence in Computer Science and English Language Arts

Paulina Haduong, Harvard University (Cambridge, Massachusetts), Dissertation passed April 2023, Chair: Karen Brennan
Learning Together: Three Studies in Elementary Computing Education

Lance Armistead, Learning Technologies, Dissertation passed April 2023
Examining the Influence of Context in Technological Pedagogical Content Knowledge Development in Training for Teaching Online

Matthew Pitcairn, Rhodes University (Makhanda, South Africa), Examination passed April 2023, Chair: Yusuf Motara
Computer Science Education and Legitimation Code Theory: An Investigation into Quality Teaching

Charles Hampton, Learning Technologies, Dissertation passed April 2022
Examining Workplace Informal Learning, Years of Professional Experience, and Occupational Self-Efficacy among University ICT Workers

Aaron Rafter, Learning Technologies, Dissertation passed April 2021
Examining the Use of Spreadsheets in a Highschool Statistics Course as it Relates to Participant Knowledge and Attitudes

Tia Forbes, Learning Technologies, Comprehensive exam passed May 2021

Rodrigo Duran, Aalto University (Helsinki, Finland), Pre-examination passed May 2020, Chair: Lauri Malmi
Cognitive Complexity of Comprehending Computer Programs

***Reeny Madathany**, Learning Technologies, Comprehensive exam passed April 2020

Julia Huprich, Learning Technologies, Dissertation passed March 2020
Competencies for Customer Education Professionals in Software-As-A-Service Organizations: A Multi-Phase Analysis

Eric Sembrat, Learning Technologies, Dissertation passed February 2020
A Review and Analysis of Process at the Nexus of Instructional and Software Design

***Mary "Dorinda" Paige**, Learning Technologies, Comprehensive exam passed Dec. 2018

Solomon Betanga, Mathematics Education, Dissertation passed November 2018
The effects of mathematical modeling instruction on precalculus students' performance and attitudes toward rational functions

Ryan Cheek, Learning Technologies, Dissertation passed October 2018
An examination of pre-major health student's readiness for interprofessional education at a technical college

Jamie Bernhardt, Learning Technologies, Comprehensive exam passed July 2018

Aysegul Gok, Learning Technologies, Dissertation passed July 2018
Examining game-like design elements and student engagement in an online asynchronous course for undergraduate university students

***Julian Allen**, Learning Technologies, Dissertation passed April 2018
Faculty approaches to active learning: Barriers, affordances, and adoption

Merrin Oliver, Educational Psychology, Dissertation passed April 2017
Investigating individual differences in the conceptual change of biology misconceptions using computer-based explanation activities

In Progress

***Nooshin Haddadian**, Learning Technologies, Coursework started Fall 2024

***Masoumeh "Marya" Rahimi**, Learning Technologies, Coursework started Summer 2023

Sierra Gilliam, Learning Technologies, Prospectus passed November 2023

Crystal Bundrage, Learning Technologies, Prospectus passed November 2021

Mentoring

Doctoral Advisor, 2 current students, 3 PhD graduates	2016 – present
Mentor, Doctoral Consortium, SIGCSE Virtual Conference	2024
Mentor, Independent Research Project, Finn Murphy	2024
Co-chair, Works in Progress Workshop, ICER Conference	2022 & 2023
Co-chair, Doctoral Consortium, ICER Conference	2020 & 2021
Mentor, Doctoral Consortium, ICER Conference	2019
Undergrad Research Assistant Manager, PSET Lab, Georgia Tech	2012-16
Undergraduate Senior Thesis Advisor, Georgia Tech	2013-14
Grand Challenges Group Facilitator, Georgia Tech	2013-14
Peer Academic Mentor, Content Writer, Southwestern University	2009-10

SERVICE

National and Professional Community

Associate Editor, *Computer Science Education* journal — 2022-present

Advisory Board Member, *Spatial Skill Training in Scottish Primary Schools* — 2022-2024
Project leaders: Quintin Cutts and Jack Parkinson (University of Glasgow)

Lead Organizer and Host, CS Education in Preservice Programs Workshop — 2023

Senior Program Committee Member, ICER Conference — 2020-2023

Co-chair, Works in Progress Workshop, ICER Conference — 2022 & 2023

ITiCSE Working Group Member, Models for Computer Science Teacher Preparation: Developing Teacher Knowledge — 2022

Co-chair, Doctoral Consortium, ICER Conference — 2020 & 2021

CSTA Working Group Member, Guidance for Schools of Education — 2020
https://csteachers.org/page/guidance-for-schools-of-education

Guest Editor, Special Issue on Advancing Theory about the Novice Programmer, *Computer Science Education* — 2018-19

Advisory Board Member, *Acquainting Metro Atlanta Youth with STEM* — 2017-18
National Science Foundation, Innovative Technology Experiences for Students and Teachers (ITEST) program, PI: Brendan Calandra

Invitation-only National Meetings

Level Up Workshop for Broadening Participation in Undergraduate Computing, sponsored by NSF and Computing Research Association — 2023

Convening on Excellence and Equity in Tech held by the STEMM Opportunity Alliance in the White House Office of Science and Technology Policy and hosted by Snap Inc. — 2023

Culturally Relevant Integration of CS and Mathematics Symposium, sponsored by NSF — 2023

CS Education in Preservice Teacher Programs Workshop, lead organizer, sponsored by NSF — 2023

Piecing Together the Next 15 Years of Computing Education Research, sponsored by NSF, https://cerfutureworkshop.wordpress.com/ — 2020-2022

CSforAll Knowledge Forum, sponsored by CSforAll — 2018

Finding a Home for Computing in Schools of Ed, sponsored by CSforAll — 2017-2018

Reviewer

National Science Foundation Review Panels (Grant)
- CAREER (2022, 2023)
- EHR CORE (2022)
- AISL (2021)
- CS for All (2020)

DRK-12 (2019, 2020)
Cyberlearning (2018)
Institute of Education Sciences External Reviewer (Grant)
Computers & Education (Journal)
Computer Science Education (Journal)
EngageCSEdu (Journal)
Transactions on Computing Education (Journal)
Journal of College Science Teaching (Journal)
PLOS One (Journal)
Nordic Journal of English Studies (Journal)
Computational Thinking as Subject or Across Subjects (Book)
Book Proposal [confidential] for MIT Press (Book)
International Computing Education Research (Conference)
International Conference of the Learning Sciences (Conference)
ACM SIGCSE Technical Symposium (Conference)
ACM Global Computing Education Conference (Conference)
ACM Southeast (Conference)
ACM SIG Computer Human Interaction (Conference)

State and Local Community

Steering Committee Member, CSforAtlanta 2024-present

Member, CS Advisory Council, Georgia Department of Education 2018-present

Contributor, Three-Year Strategic Planning Session organized by Georgia Department of Education and CS4GA 2021

Contributor, Three-Year Strategic Planning Session organized by Georgia Department of Education and CS4GA 2019

Writer, Development team for K-8 Georgia Standards of Excellence for Computer Science organized by Georgia Department of Education 2018

Contributor, State-level Planning Meeting for computing education, sponsored by Code.org 2017

Department, College, and University

Program Director, Learning Technologies 2023-present

Program Coordinator, Computer Science Teacher Endorsement 2018-present

Tech Fee Committee, Review proposals for distributing tech fee funds 2018-present

Learning Technologies Rep, Research Resources Steering Committee 2022-present

Program Coordinator, Instructional Design and Technology Ph.D. 2018-22

Chair, Tenure-Track Faculty Search Committee, Dept. of Learning Sciences ‘19, ‘20, ‘22

CONSULTING

Georgia Department of Education, Atlanta, Georgia July 2023
- Led teacher professional learning session on integrated computing at MathCON

Georgia Department of Education, Atlanta, Georgia June – August 2022
- Designed computing integration content and activities for 8th grade science courses

Georgia Public Broadcasting, Atlanta, Georgia May 2022 – May 2023
- Aligned Georgia K-8 CS standards to educational games in Gasha Go environment
- Supported all elements of production cycle from concept creation to testing and release

Maryland Center for Computing Education, Frederick, Maryland July 2022
- Led teacher professional learning session on computational thinking and integrated computing
- Scaffolded hack-a-thon-type activity for teachers to create computing integration activities

Georgia Department of Education, Atlanta, Georgia April – July 2021
- Created course about human-computer interaction for online teacher professional learning
- Designed content and activities for implementation in Canvas hosted by Georgia Virtual

Georgia Department of Education, Atlanta, Georgia March – August 2019
- Planned implementation aids for newly created K-8 CS standards
- Led development of sample curriculum for Middle School Computer Science I course

Human Interfaces, Inc., Austin, Texas August 2010 – July 2011
- Tested software and hardware using Human Factors methodologies
- Analyzed results by coding qualitative data and using SPSS for quantitative data
- Wrote and peer reviewed reports about methodology and results to deliver to clients
- Designed website with interdisciplinary team http://www.austintechinsights.com/home.shtml

VISIBILITY AND MEDIA COVERAGE

Personal website: laurenmarg.com, includes pages for Research and Papers, Teaching, and Blog
- All-time views at end of 2023 = 45,024; All-time visitors = 25,700
- 2023 views = 10,889; 2023 visitors = 6,949

Publication Reference	Coverage
Faculty Award	Miller, C. (2024, July). Margulieux, Patterson Named University Faculty Awardees. *Georgia State News Hub.* https://news.gsu.edu/2024/07/23/margulieux-patterson-named-university-faculty-awardees/
CSfor Atlanta	Kapor Foundation (2024, May). Higher Ed Institutions, National Grantmakers and Eight Local School Districts Team Up to Grow Tech Talent Pipeline in Atlanta. https://www.prnewswire.com/news-releases/higher-ed-institutions-national-grantmakers-and-eight-local-school-districts-team-up-to-grow-tech-talent-pipeline-in-atlanta-302159138.html
Blog	Santa-María Megía, N. (2024, May). The traffic lights metaphor. https://www.nachosm.com/blog-en/the-traffic-lights-metaphor

J20	Miller, C. (2024). Integrating Computing into Language, Math, Science Teacher Preparation Programs. *Research & Innovation.* https://news.gsu.edu/2024/04/25/integrating-computing-into-language-math-science-teacher-preparation-programs/
J22	Shipyard (2024, February). All Hands on Data. https://www.linkedin.com/posts/shipyard_its-wednesday-which-means-another-all-hands-activity-7166130176567808000-7Gvx Featured by Rodriguez, J. https://www.linkedin.com/posts/shipyard_dataengineering-analyticsengineering-dataanalytics-activity-7166875870811402241-QnLm
J24	UK ACM SIGCSE (2024, January). Journal Club 5th February. https://sigcse.cs.manchester.ac.uk/2024/01/22/sigman-43/
J24	Brown, N. C. C., Hermans, F. F. J., & Margulieux, L. E. (2024). Ten things software developers should learn about learning. *Communications of the ACM, 67* (January), 78-87. doi: 10.1145/3584859 Featured in *Hacker News, Reddit r/programming, Gigazine, AITopics, Programming.dev,* and *FreeBluePlanet*
ISSEP Keynote	Vaughn, S. (2023, December). Margulieux Gives Keynote Address at International Conference in Switzerland. *News at DLS*. https://education.gsu.edu/2023/12/08/margulieux-gives-keynote-address-at-international-conference-in-switzerland/
ISSEP Keynote	HEP Vaud (2023, November). Interview – Teaching Informatics in Schools. https://www.linkedin.com/posts/hepvaud_issep-activity-7131316655241990145-tEPz
NSF Grant	Miller, C. (2023, October). CEHD Researchers Receive Federal Grant to Incorporate Computational Literacy into Teacher Education. *Georgia State News Hub.* https://news.gsu.edu/2023/10/02/cehd-researchers-receive-federal-grant-to-incorporate-computational-literacy-into-teacher-education/
J22	Coleman, N. (2023, August). Let's Talk about It Tuesdays: New Approach to Teaching Computer Science. *Code{313}*. https://www.code313detroit.org/let-s-talk-about-it-tuesdays-new-approach-to-teaching-computer-science
J22	Margulieux, L. E. (2023, May). New Approach to Teaching Computer Science Could Broaden the Subject's Appeal. *The Conversation*. https://theconversation.com/new-approach-to-teaching-computer-science-could-broaden-the-subjects-appeal-205171 Featured in *New Pittsburgh Courier, Yahoo News, Chron, Caledonian Record, Cerebral.ly Government, Blogexpressions, Social-365, The Cranbury Blog, The Buffalo News, EducationDaily, The Longmont Leader, Go Skagit, Freefamilyblogs, New Covenant Network News, Techno Blender, Daily News Era, News Concerns, SwiftTelecast, The News Motion, Samachar Central, NewsInnings, Times Union, Tellam,* and *inPosiTion*

NWIT Talk	Wilson, G. (2023, April). And That's a Wrap. *It Will Never Work in Theory.* https://neverworkintheory.org/2023/04/26/and-thats-a-wrap.html
Blog	Legitimation Code Theory Centre (2023, April). LCT in Action. https://legitimationcodetheory.com/practice-and-impact/news/
J12	Wilson, G. (2023, March). Reducing Withdrawal and Failure Rates with Labeled Subgoals. *It Will Never Work in Theory*. https://neverworkintheory.org/2023/03/10/reducing-withdrawal-and-failure-rates-with-labeled-subgoals.html
Google Grants	Turk, A. (2022, December). Georgia State Awarded $234,268 from Google to Support Computer Science Education. *Georgia State News Hub.* https://news.gsu.edu/2022/12/05/georgia-state-awarded-234268-from-google-to-support-computer-science-education/ Featured in NPR, *Technology Association of Georgia SmartBrief, Albany Herald, Yahoo, Teknologic News, Henry Herald, Gwinnett Daily Post, Jackson Progress-Argus, Clayton News Daily*, KPVI Channel 6, *Rockdale Newton Citizen, McDuffie Progress, Griffin Daily News, Douglas County Sentinel, Times Georgian*
Snap Inc. Endowment	Snap Inc. DEI Innovation Summit (2022, November). Investing in our future: 1000x impact. Interviewed by Bish Paul, Snap's Global Head of DEI Industry Collaboration. https://youtu.be/FNnlPFiKbxY
Multiple	Codespec, Inc. (2022). Cited as evidence-based practices. https://www.codespec.org/about/
P13	Miedema, D. (2022, August). ICER Day 2: Tuesday August 9. *Daphne Miedema Blog.* https://daphnemiedema.nl/2022/08/17/icer-day2.html
P13	Ko, A. (2022, August). ICER 2022 Trip Report: Together Again, As Bits and Atoms. *Bits and Behavior*. https://medium.com/bits-and-behavior/icer-2022-trip-report-together-again-as-bits-and-atoms-7ccf0440d1ec
NSF EAGER	Miller, C. (2022, July). Margulieux Featured in Fierce Education Story on Computational Thinking Skills. *News as DLS.* https://education.gsu.edu/2022/07/21/margulieux-featured-in-fierce-education-story-on-computational-thinking-skills/
NSF EAGER	Teich, A. G. (2022, July). Teaching Computational Thinking Essential for Future College Students. *Fierce Education.* https://www.fierceeducation.com/teaching-learning/teaching-computational-thinking-essential-future-college-students
-	Vaughn, S. (2022, July). Margulieux Participates in Computer Science Teacher Preparation Meeting in Ireland. *News at DLS.* https://education.gsu.edu/2022/07/19/margulieux-participates-in-computer-science-teacher-preparation-meeting-in-ireland/

J19	Vaughn, S. (2022, May). Doctoral Student Bryan Cox Publishes First-Author Paper. *News at DLS.* https://education.gsu.edu/2022/05/20/doctoral-student-bryan-cox-publishes-first-author-paper/
-	Bikanga Ada, M. (2022, May). SICSA Education Distinguished Speaker Seminar at The University of Glasgow: Dr Lauren Margulieux. *SIGSA Blog*. https://www.sicsa.ac.uk/blog/sicsa-education-distinguished-speaker-seminar-at-the-university-of-glasgow-dr-lauren-margulieux/
P12	Miller, C. (2022, February). Research snapshot: Teaching with multiple conceptions. *Georgia State News Hub.* https://news.gsu.edu/2022/02/02/research-snapshot-teaching-with-multiple-conceptions/ Featured in *RoxxCloud* and *Spot on Georgia*
Snap Inc. Endowment	Stirgus, E. (2021, November). Snap Gives Georgia State $5 Million for Diversity Teacher Effort. *The Atlanta Journal-Constitution.* https://www.ajc.com/education/snap-gives-georgia-state-5-million-for-diversity-teacher-effort/KEMAYLW6VJCK5K5TPBM3MIUICI/
Snap Inc. Endowment	Team Snap (2021, November). Investing in the Next Generation of Computer Science Educators. https://newsroom.snap.com/investing-in-the-next-generation-of-computer-science-educators
Snap Inc. Endowment	CSforALL (2021, November). Investing in Teacher Preparation for the Classrooms of Today. https://csforall.medium.com/investing-in-teacher-preparation-for-the-classrooms-of-today-c7dd7c41ab68
Snap Inc. Endowment	Jones, A. (2021, November). Georgia State Receives Major Gift to Fund Computer Science Education. *Georgia State News Hub.* https://news.gsu.edu/2021/11/03/georgia-state-receives-major-gift-to-fund-computer-science-education/ Featured in *Albany Herald, The McDuffie Progress, Johnson City Press, African Graduate, Spot On Georgia, Times Georgian, Daily Advent, Douglas County Sentinel, Griffin Daily News, Newsbreak*
NSF CAREER	Miller, C. (2021, October). Margulieux to Discuss NSF CAREER Award Experiences at Nov. 9 Faculty Webinar. https://education.gsu.edu/2021/10/01/margulieux-to-discuss-nsf-career-award-experiences-at-nov-9-faculty-webinar/
P12	Ko, A. (2021, August). ICER 2021: A Daily Dose of Digital Discourse. *Bits and Behavior.* https://medium.com/bits-and-behavior/icer-2021-a-daily-dose-of-digital-discourse-46ee6c8099cd
P12	Guzdial, M. (2021, August). ICER 2021 Preview: The Challenges of Validated Assessments, Developing Rich Conceptualizations, and Understanding Interest. *Computing Education Research Blog.* https://computinged.wordpress.com/2021/08/16/icer-2021-preview-the-challenges-of-validated-assessments-developing-rich-conceptualizations-and-understanding-interest/
-	Webb, I. (2021, July). Georgia State University Commits to Creating Data Literacy Curriculum for K-12 Instructors.

	https://blog.library.gsu.edu/2021/07/02/georgia-state-university-commits-to-creating-data-literacy-curriculum-for-k-12-instructors/
NSF EAGER	Turk, A. (2021, Spring). CEHD Faculty Establish Project to Increase K-12 Computational Literacy in Rural, Low-Income Communities Across Georgia. *Research & Innovation.* p.4.
C7	ACM SIGCSE Journal Club (2021, April). Learning Sciences for Computing Education. Sponsored by the University of Manchester. https://sigcse.cs.manchester.ac.uk/2021/03/10/sigman13/
Blog	Megía, N. S-M. (2020, November). The traffic lights metaphor. https://www.nachosm.com/blog-en/the-traffic-lights-metaphor
P11	Guzdial, M. (2020, September). Award-winning papers at ICER 2020 explore new directions and point towards the next work to do. *Computing Education Research Blog.* https://computinged.wordpress.com/2020/09/28/award-winning-papers-at-icer-2020-explore-new-directions-and-point-towards-the-next-work-to-do/
NSF EAGER	Turk, A. (2020, September). Calandra, Margulieux establish project to increase K-12 computational literacy. *Noteworthy*.
P11	Ko, A. (2020, August). ACM ICER 2020 trip report: Virtual serendipity. *Bits and Behavior.* https://medium.com/bits-and-behavior/acm-icer-2020-trip-report-virtual-serendipity-6134c8ddb9d8
Multiple	Guzdial, M. (2020, July). Proposal #1 to change CS education to reduce inequity: Teach computer science to advantage the students with less computing background. *Computing Education Research Blog.* https://computinged.wordpress.com/2020/07/20/proposal-1-to-change-cs-education-to-reduce-inequity-teach-computer-science-to-advantage-the-students-with-less-background/
NSF EAGER	Miller, C. (2020, July). CEHD faculty establish project to increase K-12 computational literacy. *Georgia State News Hub.* https://news.gsu.edu/2020/07/06/cehd-faculty-establish-project-to-increase-k-12-computational-literacy/
J12	Guzdial, M. (2020, June). Subgoal labelling influences student success and retention in CS. *Computing Education Research Blog.* https://computinged.wordpress.com/2020/06/29/subgoal-labelling-influences-student-success-and-retention-in-cs/
NSF CAREER	Miller, C. (2020, May). King, Margulieux chosen for NSF Faculty Early Career Development program. *Georgia State News Hub.* https://news.gsu.edu/2020/05/29/king-margulieux-chosen-for-nsf-faculty-early-career-development-program/
NSF CAREER	CADRE (2020, May). DRK-12 CAREER Awards. *CADRE Newsletter Spotlights.* http://cadrek12.org/career-spotlight

J4	Sentence, S. (2020, May). Making the best of it: Online learning and remote teaching. *Raspberry Pi Blog.* https://www.raspberrypi.org/blog/research-seminar-online-learning-remote-teaching/
Blog	Miller, C. (2020, April). Navigating the shift to teaching from a distance. https://education.gsu.edu/2020/04/14/navigating-the-shift-to-teaching-from-a-distance/?mc_cid=8ec4a26539&mc_eid=d435b9e3ed
NSF CAREER	Vaughn, S. (2020, February). Lauren Margulieux receives grant from National Science Foundation. *Department of Learning Sciences Bulletin.* https://education.gsu.edu/2020/02/25/lauren-margulieux-receives-grant-from-national-science-foundation/
NSF CAREER	CADRE (2020, January). Computer science and computational thinking. *CADRE Newsletter Spotlights.* http://cadrek12.org/computer-science-and-computational-thinking
Margulieux et al., 2015	Joo, J., & Spies, R. R. (2019, November). Aligning many campuses and instructors around a common adaptive learning courseware in introductory statistics. *ITHAKA S+R Research Report*. https://sr.ithaka.org/publications/adaptive-learning-courseware-introductory-statistics/
C5	Haggans, M. (2019, September). Changing learning: Changing campus. *Campus Matters.* https://campusmatters.net/changing-learning-changing-campus/
Blog	Guzdial, M. (2019, September). What's generally good for you vs what meets a need: Balancing explicit instruction vs problem/project-based learning in computer science classes. *Computing Education Research Blog.* https://computinged.wordpress.com/2019/09/16/whats-good-for-you-vs-what-fixes-you-balancing-explicit-instruction-vs-problemproject-based-learning-in-computer-science-classes/
Blog	Scholar (2019, August). What programming concept do I use? *Universitiez.* https://universitiez.xyz/2019/08/02/what-programming-concept-do-i-use/
P10	Meister, H. (2019, August). Lauren Margulieux wins John Henry "Fool's" Award. https://education.gsu.edu/2019/08/23/lauran-margulieux-wins-john-henry-fools-award/
P10	Ko, A. (2019, August). ACM ICER 2019 trip report: Leveling up on theory, statistics, and significance. *Bits and Behavior*. https://medium.com/bits-and-behavior/acm-icer-2019-trip-report-leveling-up-on-theory-statistics-and-significance-876b6d74148d
P10	Guzdial, M. (2019, August). Social studies teachers programming, when high schools choose to teach CS, and new models of cognition and intelligence in programming: An ICER 2019 Preview. *Computing Education Research Blog.* https://computinged.wordpress.com/2019/08/12/social-studies-teachers-programming-when-high-schools-choose-to-teach-cs-and-new-models-of-cognition-and-intelligence-in-programming-an-icer-2019-preview/

Blog	Thompson, A. C. (2019, August). What programming concept do I use? *Computer Science Teacher*. http://blog.acthompson.net/2019/08/what-programming-concept-do-i-use.html
Multiple	Wilson, G. (2019, May). Teaching tech together: How to create and deliver lessons that work and build a teaching community around them. http://teachtogether.tech/
NSF IUSE	STEM for All Video Showcase (2019, May). Using subgoal labels to improve learning outcomes in CS1. Showcase sponsored by NSF. https://stemforall2019.videohall.com/presentations/1391
Madden et al., 2019	Aiello, B. (2019, April). MIT Press publishes collected volume of Georgia Tech blended learning research. Georgia Tech School of Interactive Computing. https://ic.gatech.edu/news/620597/mit-press-publishes-collected-volume-georgia-tech-blended-learning-research
Blog	Wilson, G. (2019, February). Making it work in practice. *Third-bit.com*. http://third-bit.com/2019/02/25/making-it-work-in-practice.html
J2 & P1	Scholten, C. (2018, December). Subgoal Labeling (Part 3) and CS Ed Week. *Set Another Goal.* https://setanothergoal.blogspot.com/2018/12/subgoal-labeling-part-3-and-cs-ed-week.html
J2 & P1	Scholten, C. (2018, December). Subgoal labeling – revisited. *Set Another Goal.* https://setanothergoal.blogspot.com/2018/12/subgoal-labeling-revisited.html
Blog	Lee, A. (2018, November). Laptops, What is it Good for? https://www.hastac.org/blogs/swagm0n3yyolo/2018/11/30/laptops-what-it-good
Blog	Musto, P. (2018, September). Does using technology in the classroom help college students? *Voice of America*. https://learningenglish.voanews.com/a/does-using-technology-in-the-classroom-help-or-harm-college-students/4591704.html
J2 & P1	Scholten, C. (2018, September). CS teaching strategies – subgoal labeled worked examples. *Set Another Goal.* http://setanothergoal.blogspot.com/2018/09/cs-teaching-strategies-subgoal-labeled.html
Blog	Guzdial, M. (2018, September). Applying diSessa's Knowledge in Pieces framework to understanding the notional machine. *Computing Education Blog.* https://computinged.wordpress.com/2018/09/14/applying-disessas-knowledge-in-pieces-framework-to-understanding-the-notional-machine/
P7	Guzdial, M. (2018, August). Adaptive Parsons problems, and the role of SES and gesture in learning computing: ICER 2018 preview. *Computing Education Blog.* https://computinged.wordpress.com/2018/08/10/adaptive-parsons-problems-and-the-role-of-ses-and-gesture-in-learning-computing-icer-2018-preview/
Blog	Guzdial, M. (2018, August). How computing education researchers and learning scientists might better collaborate. *Computing Education Blog.*

	https://computinged.wordpress.com/2018/08/12/how-computing-education-researchers-and-learning-scientists-might-better-collaborate/
J5	Guzdial, M. (2018, March). How CS differs from other STEM disciplines: Varying effects of subgoal labeled expository text in programming, chemistry, and statistics. *Computing Education Blog.* https://computinged.wordpress.com/2018/03/16/how-cs-differs-from-other-stem-disciplines-varying-effects-of-subgoal-labeled-expository-text-in-programming-chemistry-and-statistics/
J2 & J5	Rouhi, A. M. (2018, March). Easy as 1, 2, 3! Really?: Studies point to smarter way to learn procedures, solve problems. Georgia Tech College of Sciences. https://www.cos.gatech.edu/hg/item/603373. Featured in *Science Bulletin,* phys.org.
Blog	McKnight, C. (2018, February). OPINION: All zero-tech policies are absurd. *Technician*. http://www.technicianonline.com/opinion/article_0cb13a70-0ba7-11e8-a657-6f8582b87067.html In reference to http://c21u.gatech.edu/blog/case-laptops-classroom
Dissertation	Miller, C. (2017, November). Margulieux Examines How Students Use Subgoals, Feedback To Improve Programming Knowledge, Skills. *Research & Innovation.* https://news.gsu.edu/2017/11/13/ margulieux-examines-students-use-subgoals-feedback-improve-programming-knowledge-skills/
Ericson et al., 2017	Guzdial, M. (2017, November). Parsons Problems have same Learning Gains as Writing or Fixing code, in less time: Koli Calling 2017 Preview. *Computing Education Blog.* https://computinged.wordpress.com/2017/11/17/parsons-problems-have-same-learning-gains-as-writing-or-fixing-code-in-less-time-koli-calling-2017-preview/
NSF IUSE	MAGIC Center (2017, August). Professor awarded an NSF grant: Looking for better ways to teach introductory computing. https://magic.rit.edu/?p=2490#more-2490
NSF IUSE	Rucker, A. (2017, August). NSF Awards IS&T Research Grant to Improve Computer Science Education. www.unomaha.edu/college-of-information-science-and-technology/news/2017/08/
Dissertation	Rouhi, A. M. (2017, June). Lauren Margulieux is recognized for best Ph.D. research. Georgia Tech College of Sciences. https://www.cos.gatech.edu/hg/item /592492
Dissertation	Parkinson, S. (2017, May). 2016 Emerald/HETL Education Outstanding Doctoral Research Award. http://www.emeraldgrouppublishing.com/research/awards/hetl.htm
P5	Guzdial, M. (2016, September). Learning curves, given vs. generated subgoal labels, replicating a US study in India, and frames vs. text: More ICER 2016 trip reports. *Computing Education Blog.* https://computinged.wordpress.com/2016/09/16/learning-curves-given-vs-generated-replicating-from-us-to-india-and-frames-vs-text-more-icer-2016-trip-reports/

P5	Guzdial, M. (2016, September). Preview ICER 2016: Ebooks design-based research and replications in assessment and cognitive load studies. *Computing Education Blog.* https://computinged.wordpress.com/2016/09/02/preview-icer-2016-ebooks-design-based-research-and-replications-in-assessment-and-cognitive-load-studies/
J3	IANS (2016, May). Download these free web apps to multi-task better. Featured in *Yahoo!News, The Times of India, The Economic Times*, *The Statesman, Business Standard*, *Zee News, The Free Press Journal, Three Novices, Udaipur Kiran, Download Jozz, Vishva Times, LA Indian, Seattle Indian, Can India.*
J3	Calishain, T. (2016, May). Thursday buzz: May 26, 2016. *Research Buzz.* https://researchbuzz.me/2016/05/26/congress-gov-satellite-imagery-texas-floods-more-thursday-buzz-may-26-2016/ and https://rbfirehose.com/ 2016/05/25/research-the-usability-of-online-collaborative-apps/
J3	Smith, L. (2016, May). Which free web apps for collaboration are the most user-friendly?. Featured in *EurekAlert.org, Newswise.com, Phys.org, Livenetworknews.com, Scienmag.com, Allmagnews.com*, *Healthmedicinet.com, Science Codex.*
J3	Preston, J. (2016, May). Georgia Tech research finds that web apps for the workplace succeed to varying degrees. *GVU Center News Brief.* http://gvu.gatech.edu/georgia-tech-researchers-find-web-apps-workplace-are-succeeding-varying-degrees
Dissertation	Guzdial, M. (2016, May). CS classes have different results than laboratory experiments—not in a good way. *Communications of the ACM.* http://cacm.acm.org/magazines/ 2016/6/202660-the-solution-to-ai-what-real-researchers-do-and-expectations-for-cs-classrooms/fulltext
J1	Routledge (2016, April). Employing subgoals in computer programming education. Featured in #ReadMyResearch: Education. http://explore.tandfonline.com/page/bes/rmr/education
Dissertation	Guzdial, M. (2016, March). CS classes have different results than laboratory experiments—Not in a good way. *Blog @ CACM*. http://bit.ly/1UUrOUu
Dissertation	Guzdial, M. (2016, March). Optimizing learning with subgoal labeling: Lauren Margulieux defends her dissertation. *Computing Education Blog.* https://computinged.wordpress.com/ 2016/03/29/optimizing-learning-with-subgoal-labeling-lauren-margulieux-defends-her-dissertation/
Morrison et al., 2016	Guzdial, M. (2016, February). SIGCSE 2016 Preview: Parsons problems and subgoal labeling, and improving female pass rates on the AP CS exam. *Computing Education Blog.* https://computinged.wordpress.com /2016/02/29/sigcse-2016-preview-parsons-problems-and-subgoal-labeling-and-improving-female-pass-rates-on-the-ap-cs-exam/

P3	Falkner, N. (2016, January). Teaching for (current) humans. Blog post. https://nickfalkner.com/2016/01/13 /teaching-for-current-humans/
P3	Guzdial, M. (2015, August). ICER 2015 preview: Subgoal labeling works for text, too. *Computing Education Blog.* https://computinged.wordpress.com/2015/08/07/icer-2015-preview-subgoal-labeling-works-for-text-too/
Margulieux et al., 2015	Georgia Tech GVU Center (2015, June). Defining mixed online learning. *News Brief*. http://us2.campaign-archive2.com/?u=a29f4ab2c992525ddd2413264 &id=ecc826d67e&e =3f1206e0a9
Multiple	Wikipedia (2014). Subgoal labeling. http://en.wikipedia.org/wiki/Subgoal_labeling
P1	Georgia Tech GVU Center (2013). New computing education model applied to mobile app development. 2013 Annual Report: Advancing Technology to New Heights. http://gvu.gatech.edu/sites/gvu.gatech.edu/ files/uploads/GVU%20AR%202013%20-%20web%20small.pdf
P2	American Psychological Foundation (2013, March). 15 students conduct groundbreaking research, thanks to APF scholarships. *Monitor on Psychology*, *44*(3), 76.
P1	Guzdial, M. (2012, December). The bigger issues in learning to code: Culture and pedagogy. *Computing Education Blog.* http://computinged.wordpress.com/2012/12/21/the-bigger-issues-in-learning-to-code-culture-and-pedagogy/
P1	Pickens, C. (2012, October). Subgoals in learning. *Computing Education: A Research Blog about Computer Science Education.* http://michigancomputes.wordpress.com/2012/10/23/subgoals-in-learning/
P1	Guzdial, M. (2012, June). Instructional design principles improve learning about computing: Making measurable progress. *Computing Education Blog.* http://computinged.wordpress.com/ 2012/06/05/instructional-design-principles-improve-learning-about-computing-making-measurable-progress/