Dr. Veronica Cateté

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Education

Ph.D. in Computer Science North Carolina State University May 2018
Thesis: *A Framework for the Rapid Creation of Quality-Assured Programming Rubrics for New K-12 Computer Science Teachers.*
Committee: Dr. Tiffany Barnes, Dr. James Lester, Dr. Sarah Heckman, and Dr. Aaron Clark

M.S. in Computer Science University of North Carolina – Charlotte Aug 2012
Concentration: Intelligent & Interactive Systems; Mobile Game Design

B.S. in Computer Science North Carolina State University Dec 2010
Minor: *Science Technology & Society*; Honors: *Magna Cum Laude*
Research: Measuring affect in intelligent game-based learning environments.

Professional History

Research Scientist	North Carolina State University, Raleigh	2018 – Present
Research Consultant	Mothering Across Continents, Kigali, Rwanda	2016 – Present
Research Assistant	North Carolina State University, Raleigh	2012 – 2017
Research Intern	Microsoft Research, Redmond, WA	2014, 2015
Research Assistant	University of North Carolina – Charlotte	2011 – 2012

Research Interests

K – 12 Computer Science Education, Game-Based Learning, Computer Science Outreach for Equity in Computing

Awards & Recognition (items in bold indicate awards relevant to Expanding CS Education)

Best Paper Awards – **ITiCSE 2016, 2017**, and FDG 2014.
2021 Governor's Award for Excellence, nominee, (highest honor for a state employee)
2021 Award for Excellence – Spirit of North Carolina, North Carolina State University
2021 Award for Excellence – Spirit of North Carolina, College of Engineering
2020 Erskine B. Bowles Staff Service Award, University of North Carolina System Staff Assembly
2020 Pride of the Wolf Pack Award, NCSU
2020 Chancellor's Creating Community Award, Nominee, NCSU
2018 Global Engage Institute Research Scholar, NCSU Office of Global Engagement
2018 Outstanding Dissertation Award, NCSU Department of Computer Science
2018 Distinguished Dissertation Award, Nominee, NCSU College of Engineering
2018 Graduate Student Leadership Award, NCSU Department of Computer Science
2017 Equity for Women Award, NCSU Council on the Status of Women
2016 Deborah S. Moore Outstanding Student Volunteer Award, NCSU
2012 Centennial Campus Partnership Award, NCSU
2012 Microsoft Research Graduate Women's Scholar, Microsoft Research
2012 NSF Graduate Research Fellow, National Science Foundation

Synergistic Activities

1. Engaging K-12 Students through Computer Science Outreach:

- Over 10 years of experience ***leading middle and high school outreach*** programs, clubs, and summer camps for diverse populations
- Ran SPARCS middle school outreach program; Earned a Centennial Partners Award for service to the community in both local schools and through a partnership with the NC Math & Science Education Network for ***underserved and underrepresented students***
- Since 2018, organized summer programs for two separate law enforcement outreach organizations; engaging at-risk boys in ***STEM and game development*** and showcasing ***STEM careers and college*** opportunities for the Girls Inspiring Real Leadership & Sisterhood program respectively
- During the pandemic, led the development and implementation of a ***coping skills and game design*** workshop series for ***homeless youth*** in Wake County through partnership with Project CATCH and represented the College of Engineering & Computer Science in *Juntos*, a ***college prep academy*** for 1st generation ***Hispanic students*** interested in pursuing higher education
- In 2019, created a ***computer science high school internship program*** (80% female) which engages ~30 students each summer in socially relevant computing projects and partners with the Infusing Computing PD project to provide coding support to 160 K-12 teachers annually

2. Developing Computing Curriculum:

- Dissertation work on developing ***effective measures for assessing programming activities*** for CS Principles coursework.
- Received ***back to back best paper nominations*** for publications at ITiCSE 2016 and 2017.
- Recently developing computing infused science modules for middle school classrooms.
- Conducts research exploring CS curriculum for ***instructor influence, student ownership, collaboration, creativity, scaffolding designs, and extension activities*** for advanced learners
- 10-12 computer science education peer-reviewed publications annually
- Resulting trace data from over 600 students is available for ***deeper analysis and machine learning*** of programming patterns exhibited by novice learners.
- In summer 2020, led intern team in generating 87 computing infused activities complete with teacher guides, student guides, scaffolded code, and extension ideas for classrooms

3. Broadening Participation in Computing Globally & Sustainably:

- Lead researcher and computer scientist for the Pivot Academy project sponsored by Mothering Across Continents
- In 2016, helped develop and lead the overseas pilot of a one-week ***computing infused STEM academy*** for 150 secondary students attending a Byimana all-girls school in rural Rwanda
- Developed the computing curriculum segment of the academy to engage STEM students in computational thinking and digital literacy skills, enabling students to use computing to enhance their capstone STEM projects and entrepreneurial ventures
- Met with the Rwanda Education Board and the Ministry of Youth and ICT to ***form sustainable partnerships*** and strategic plans for the growth of the program
- Efforts led to a formalization of ***professional development lessons*** with teachers and staff from schools across the region as well as a recurring study abroad trip for university students to bring ***hands-on STEM activities*** to primary and secondary schools in rural Rwandan villages
- This program has engaged over 80 K-12 teachers, more than one thousand K-12 students, and nearly 70 engineering university students

Professional Memberships & Service

Conference and Workshop Reviewing:

- ACM Technical Symposium on CS Education (SIGCSE) Rev: 2017, PC: 2018-20, SrPC: 2021
- Workshop on Software Engineering in Primary and Secondary Education (SEPSE) PC: 2020
- Conference on Innovation and Technology in CS Education (ITiCSE) PC: 2017-2020
- ACM Global Computing Education Conference (CompEd) PC: 2019
- International Computing Education Research Conference (ICER) Rev: 2016
- Foundations of Digital Games (FDG) Conference Rev: 2014-15, PC: 2014
- Educational Data Mining (EDM) Conference Rev: 2014, 2018, G-EDM PC: 2014
- ACM SIGPLAN Conference on Systems, Programming, Languages and Applications (SPLASH) - Programming for Mobile and Touch (PRoMoTo) Workshop PC: 2013, 2014
- International Conference on AI in Education (AIED) Rev: 2013

Journal Reviewing:

- Computing in Science and Engineering (CiSESI) 2019
- Computers and Education (C&E) 2016
- Computers in Human Behavior (CHB) 2015
- Bulletin of the American Meteorological Society (BAMS) 2014
- Journal for Educational Data Mining (JEDM) 2014

Organization of Conferences and Workshops:

- Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT) Conference Publications Committee: 2015, Organizing Committee: 2020
- STARS Celebration Conference (STARS) Organizing Committee: 2018
- Global Game Jam Site Coordinator: 2013-2015

Memberships:

- International Society of the Learning Sciences (ISLS) since 2020
- ACM Special Interest Group on Computer Science Education (SIGCSE) since 2013
- Association for Computing Machinery (ACM) since 2010
- Upsilon Pi Epsilon, International Honor Society for Computing, Member since 2010

Grant Reviewing:

- Grant Reviewer, National Science Foundation, 2020, 2021

Advisory Boards:

- Code.org - Hour of Code and CSEdWeek, since 2018

University & Departmental Service:

- Chancellor's Leadership Development Program (CLDP), Mentor 2021
- Departmental Equity & Diversity Officer Task Force on Diversity & Inclusivity, 2020-2021
- Diversity-Conscious Faculty Hiring Task Force on Diversity & Inclusivity, 2020
- Goodnight Scholars: First year and Transfer application Reviewer, since 2020
- Park Scholars: Finalists Interviewer, since 2020
- Park Enrichment Grants Reviewer, quarterly since 2020
- Rwanda Alternative Spring Break & Study Abroad Program Co-Advisor, since 2018
- Educational and Technology Fee (ETF) committee, since 2014

Doctoral Students Mentored:

- Alexandra Milliken, *Strategies for Designing, Scaffolding, and Leading Open-Ended Programming Projects Within Core K-12 Classrooms*, 2021.
- Nicholas Lytle, *Strategies for Designing, Scaffolding, and Leading Open-Ended Programming Projects Within Core K-12 Classrooms*, 2020. **2021 Computing Innovation Fellow.**

Research Grant Awards & Management

Collaborative Research: BPC-AE: STARS: Catalyzing Action-Oriented Academic Communities for Broadening Participation in Computing. CNS-2137317 **–** PI: Tiffany Barnes; **Co-PI: Veronica Cateté.** 2021-2024; $652,289.

Computer Science Pathways: A Diagnostic Grant to Support Retention and Persistence **–** Northeastern University Center for Inclusive Computing**.** PI: Sarah Heckman; **Co-PIs:** Tzvetelina Battestilli, **Veronica Cateté**. 2021-2023; $60,000.

RET Site: Socially Relevant Computing and Analytics. NSF IIS-2055528– PI: Tiffany Barnes; **Co-PIs:** Collin Lynch, **Veronica Cateté**. 2021-2024; $598,913

Collaborative Research: Scaling the Early Research Scholars Program. NSF Prime-703841 – **PI: Veronica Cateté**; Co-PIs: Bita Akram, Sarah Heckman, Tiffany Barnes, Tzvetelina Battestilli, Barbra Adams, Chris Martens. 2020-2022; $20,000.

DRL-1949492 Beyond CS Principles: Engaging Female High School Students in New Frontiers of Computing – 2020-2023; $555,000.
Research Scientist

- Meets regularly with PIs and assists PI Barnes with all aspects of the Machine Learning and Software Engineering curriculum designs
- Investigates collaboration research and broadening participation issues
- Organizes and researches teacher PD and summer camps during the project

DRL-1837439 Developing a Systemic, Scalable Model to Broaden Participation in Middle School Computer Science - 2020-2023; $497,176.
Research Scientist

- Meets with co-PIs & coordinates the NCSU CS research team
- Assist in primary research questions, aligns curricular interventions to national K12 CS/CT standards, design teacher professional development, and coordinate with STEM+C project.
- Organizes NCSU undergraduate STARS students to support classroom implementations
- Prepares research manuscripts and aids in annual reports

DRL-1742351 Integrating computing in STEM: Designing, developing, and investigating a team-based professional development model for middle- and high-school teachers – 2018-2020; $861,773.
Research Coordinator, Project Manager

- Meets with co-PIs & directs graduate research and curriculum development
- Manages relations with K-12 research partner schools and professional development attendees
- Leads computational thinking boot camp for STEM teachers

IIS-1950607 REU Site: Socially Relevant Computing and Analytics – 2020-2023; $405,000.
IIS-1659745 REU Site: Socially Relevant Computing and Analytics – 2017-2019; $360,000.
Site coordinator, grant editing

- Manages NCSUs REU site coordinating faculty mentors in the application and review process
- Handles all applicant onboarding, housing, and university logistics

- Creates & delivers research skills workshops (question development, reading & writing research papers, evaluating projects, ethics, etc.)

STARS Student Leadership Corps: SPARCS – 2013-2016; $26,000.
Project Manager, Mini grants
- Awarded three mini-grants to carry out CS Outreach to middle school students
- Managed funds for equipment and operating costs as well as student stipends

National Science Foundation Graduate Research Fellowship – 2012-2015; $132,000.
Principle Investigator
- Proposal: Using a modified AP Computer Science Curriculum during Middle School to Increase Enrollment of Minority Women in High School Computing Classes
- Modularized an existing CS outreach curriculum and enhanced it with advanced lessons on OOP and interactive media (games, mobile apps, etc)
- Trained 2 dozen mentors to replicate the program across 6 different systems
- 500+ students completed the outreach program, initial longitudinal data shows 85% transfer

Grant Proposal Editing – $6,215,000
- CNS-1542922 Track 2: CS10K: BJC-STARS: Scaling CS Principles through STARS community & leadership development – 2015-2018; *$500,000.*
- CNS-1042468 BPC-AE: Scaling the STARS Alliance: A National Community for Broadening Participation through Regional Partnerships – 2014-2017; *$4,050,000*.
- IIS-1262899 REU Site: Interactive and Intelligent Media – 2013-2016; *$360,000*.
- CNS-1346922 (NCSU) 1138588 (UNCC) & 1138596 (UCB) Type I: Collaborative Research: FRABJOUS CS - Framing a Rigorous Approach to Beauty and Joy for Outreach to Underrepresented Students in Computing at Scale – 2013-2018; *$1,005,000.*
- CNS-1156822 REU Site: Exploring Human Centered and Socially Relevant Interactive Technologies in Computer Vision, Visualization, Pervasive Computing, Serious Games, and Social Networks – 2012-2015; *$300,000*.

Refereed Publications

Journal Articles

J1. Thomas W. Price, Yihuan Dong, Rui Zhi, Benjamin Paaßen, Nicholas Lytle, Veronica Cateté, and Tiffany Barnes. A comparison of the quality of data-driven programming hint generation algorithms. *International Journal of Artificial Intelligence in Education,* vol. 29, No. 3. (2019), pp. 368-395. Springer New York.

Conference Publications

C1. Veronica Cateté, Amy Isvik, Marnie Hill. 2022. A Framework for Socially-Relevant Service-Learning Internship Experiences for High School Students. In *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education (SIGCSE 2022)*. Association for Computing Machinery, New York, NY, USA, 8 pages. [In Press]

C2. Samiha Marwan, Preya Shabrina, Alex Milliken, Ian Menezes, Veronica Cateté, Thomas W. Price and Tiffany Barnes. 2021. Promoting Students' Progress-Monitoring Behavior during Block-Based Programming. *Koli Calling '21: Proceedings of the 21st Koli Calling International Conference on Computing Education Research.* Association for Computing Machinery, New York, NY, USA, 11 pages. [In Press]

C3. Laura Bottomley, Veronica Cateté, Veronica Mbaneme, Angelitha Daniel, Kimberly Pender, Kanton Reynolds, Lisa Marshall. 2021. Developing Sustainable, Mutually Collaborative, Global Partnerships. In *2021 World Engineering Education Forum/Global Engineering Deans Council (WEEF/GEDC)*. 6 pages. IEEE. [In Press]

C4. Amy Isvik, Veronica Cateté, and Tiffany Barnes. 2021. Investigating the Impact of Computing vs Pedagogy Experience in Novices Creation of Computing-Infused Curricula. In *Proceedings of the 26th ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE '21).* Association for Computing Machinery, New York, NY, USA, pp. 255–261.

C5. Amy Isvik, Veronica Cateté, Dave Bell, Isabella Gransbury and Tiffany Barnes. 2021. Infusing Computing: Moving a Service Oriented Internship Program Online. In *Proceedings of the 2021 Conference on Research in Equitable and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, Vol. 1, pp. 1-4. IEEE.

C6. Amy Isvik, Veronica Cateté, Erynn Elmore and Tiffany Barnes. 2021. Examining Equity in Computing-Infused Lessons Made by Novices. *Proceedings of the 2021 Conference on Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, Vol. 1, pp. 1-4. IEEE.

C7. Alexandra Milliken, Wengran Wang, Veronica Cateté, Sarah Martin, Neeloy Gomes, Yihuan Dong, Rachel Harred, Amy Isvik, Tiffany Barnes, Thomas Price, and Chris Martens. 2021. PlanIT! A New Integrated Tool to Help Novices Design for Open-ended Projects. In *Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (SIGCSE 2021)*. Association for Computing Machinery, New York, NY, USA, pp. 232–238.

C8. Audrey Rorrer, David Pugalee, Callie Edwards, Danielle Boulden, Mary Lou Maher, Lijuan Cao, Mohsen Dorodchi, Veronica Cateté, David Frye, Tiffany Barnes, and Eric Wiebe. 2021. The Design and Implementation of a Method for Evaluating and Building Research Practice Partnerships. In *Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (SIGCSE 2021)*. Association for Computing Machinery, New York, NY, USA, pp. 753–759.

C9. Robin Jocius, Deepti Joshi, Jennifer Albert, Tiffany Barnes, Richard Robinson, Veronica Cateté, Yihuan Dong, Melanie Blanton, Ian O'Byrne, and Ashley Andrews. 2021. The Virtual Pivot: Transitioning Computational Thinking PD for Middle and High School Content Area Teachers. In *Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (SIGCSE 2021)*. Association for Computing Machinery, New York, NY, USA, pp. 1198–1204.

C10. Shuchi Grover, Veronica Cateté, Tiffany Barnes, Marnie Hill, Ákos Lédeczi, and Brian Broll. 2020. FIRST principles to design for online, synchronous high school CS teacher training and curriculum co-design. *Koli Calling '20: Proceedings of the 20th Koli Calling International Conference on Computing Education Research*. Association for Computing Machinery, New York, NY, USA, Article 21, pp. 1–5.

C11. Veronica Cateté, Amy Isvik, and Tiffany Barnes. 2020. Infusing Computing: A scaffolding and teacher accessibility analysis of computing lessons designed by novices. *Koli Calling '20: Proceedings of the 20th Koli Calling International Conference on Computing Education Research.* Association for Computing Machinery, New York, NY, USA, Article 36, pp. 1–11.

C12. Veronica Cateté, Lauren Alvarez, Amy Isvik, Alexandra Milliken, Marnie Hill, and Tiffany Barnes. 2020. Aligning theory and practice in teacher professional development for computer science. *Koli Calling '20: Proceedings of the 20th Koli Calling International Conference on Computing Education Research.* Association for Computing Machinery, New York, NY, USA, Article 22, pp. 1–11.

C13. Amy Isvik, Veronica Cateté, Lauren Alvarez, Nicholas Lytle, and Tiffany Barnes. 2020. Exploring differences between student and teacher created Snap! projects. In *Proceedings of the 2020 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)*, pp. 1-5. IEEE.

C14. Amy Isvik, Veronica Cateté, and Tiffany Barnes. 2020. Flames: A socially relevant computing summer internship for high school students. In *Proceedings of the 2020 Research on Equity*

and Sustained Participation in Engineering, Computing, and Technology (RESPECT), Vol. 1, pp. 1-4. IEEE.

C15. Nicholas Lytle, Alexandra Milliken, Veronica Cateté, and Tiffany Barnes 2020. Investigating different assignment designs to promote collaboration in block-based environments. In *Proceedings of the 51st ACM Technical Symposium on Computer Science Education (SIGCSE 2020)*. Association for Computing Machinery, New York, NY, USA, pp. 832-838.

C16. Robin Jocius, Deepti Joshi, Yihuan Dong, Richard Robinson, Veronica Cateté, Tiffany Barnes, Jennifer Albert, Ashley Andrews, Nicholas Lytle. 2020. Code, Connect, Create: The 3C professional development model to support computational thinking infusion. In *Proceedings of the 51st ACM Technical Symposium on Computer Science Education (SIGCSE 2020).* Association for Computing Machinery, New York, NY, USA, pp. 971-977.

C17. Ruth Okoilu Akintunde, Preya Shabrina, Veronica Cateté, Tiffany Barnes, Collin Lynch, and Teomara Rutherford. 2020. Data-informed curriculum sequences for a curriculum-integrated game. In *Proceedings of the Tenth International Conference on Learning Analytics & Knowledge (LAK '20)*. Association for Computing Machinery, New York, NY, USA, 635–644.

C18. Robin Jocius, Jennifer Albert, Ashley Andrews, Veronica Cateté, Yihuan Dong, Deepti Joshi, Richard Robinson, Tiffany Barnes, and Nicholas Lytle. 2019. Infusing computing through professional development: Shifts in content area teachers' understandings of computational thinking integration. In *Proceedings of the Society for Information Technology and Teacher Education International Conference (SITE 2019).* Association for the Advancement of Computing in Education (AACE), Waynesville, NC, USA, pp. 302-305.

C19. Zhongxiu Peddycord-Liu, Veronica Cateté, Jessica Vandenberg, Tiffany Barnes, Collin F. Lynch, and Teomara Rutherford. 2019. A field study of teachers using a curriculum-integrated digital game. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19).* Association for Computing Machinery, New York, NY, USA, Paper 428, pp. 1–12.

C20. Nicholas Lytle, Veronica Cateté, Danielle Boulden, Yihuan Dong, Jennifer Houchens, Alexandra Milliken, Amy Isvik, Danielle Boulden, Wiebe, E., and Tiffany Barnes (2019). Use, Modify, Create: Comparing computational thinking lesson progressions for STEM classes. In *Proceedings of the 24th Annual ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE 2019).* Association for Computing Machinery, New York, NY, USA, pp. 395-401.

C21. Yihuan Dong, Veronica Cateté, Nicholas Lytle, Amy Isvik, Tiffany Barnes, Robin Jocius, Jennifer Albert, Deepti Joshi, Richard Robinson, and Ashley Andrews. 2019 Infusing Computing: Analyzing teacher programming products in k-12 computational thinking professional development. In *Proceedings of the 24th Annual ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE 2019).* Association for Computing Machinery, New York, NY, USA, pp. 278-284.

C22. Alexandra Milliken, Christa Cody, Veronica Cateté, and Tiffany Barnes. 2019. Effective computer science teacher professional development: Beauty and Joy of Computing 2018. In *Proceedings of the 24th Annual ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE 2019).* Association for Computing Machinery, New York, NY, USA, pp. 271-277.

C23. Nicholas Lytle, Veronica Cateté, Yihuan Dong, Danielle Boulden, Bita Akram, Jennifer Houchins, Tiffany Barnes, and Eric Wiebe. 2019. CEO: A Triangulated Evaluation of a Modeling-Based CT-Infused CS Activity for Non-CS Middle Grade Students. In *Proceedings of the ACM Conference on Global Computing Education (CompEd '19)*. Association for Computing Machinery, New York, NY, USA, 58–64.

C24. Yihuan Dong, Veronica Cateté, Robin Jocius, Nicholas Lytle, Tiffany Barnes, Jennifer Albert, Deepti Joshi, Richard Robinson, Ashely Andrews. 2019. PRADA: A practical model for integrating computational thinking in K-12 education. In *Proceedings of the 50th ACM*

Technical Symposium on Computer Science Education (SIGCSE 2019). Association for Computing Machinery, New York, NY, USA, pp. 906-912.

C25. Yihuan Dong, Samiha Marwan, Veronica Cateté, Thomas W. Price, and Tiffany Barnes. 2019. Defining tinkering behavior in open-ended block-based programming assignments. In *Proceedings of the 50th ACM Technical Symposium on Computer Science Education, (SIGCSE 2019).* Association for Computing Machinery, New York, NY, USA, *pp.* 1204-1210.

C26. Veronica Cateté, Nicholas Lytle, and Tiffany Barnes. 2018. Creation and validation of low-stakes rubrics for K-12 computer science. In *Proceedings of the 23rd Annual ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE 2018)*. Association for Computing Machinery, New York, NY, USA, 63–68.

C27. Thomas W. Price, Zhongxiu Liu, Veronica Cateté, and Tiffany Barnes. 2017. Factors influencing students' help-seeking behavior while programming with human and computer tutors. In *Proceedings of the 2017 ACM Conference on International Computing Education Research (ICER '17).* Association for Computing Machinery, New York, NY, USA, pp. 127–135.

C28. Veronica Cateté and Tiffany Barnes. 2017. Application of the Delphi Method in computer science principles rubric creation. In *Proceedings of the 2017 ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE '17)*. Association for Computing Machinery, New York, NY, USA, pp. 164–169. **BEST PAPER NOMINEE**.

C29. Veronica Cateté, Erin Snider, and Tiffany Barnes. 2016. Developing a rubric for a creative CS principles lab. In *Proceedings of the 2016 ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE 2016)*. Association for Computing Machinery, New York, NY, USA, pp. 290–295. **BEST PAPER NOMINEE**.

C30. Thomas W. Price, Veronica Cateté, Jennifer Albert, Tiffany Barnes, and Daniel D. Garcia. 2016. Lessons learned from "BJC" CS Principles professional development. In *Proceedings of the 47th ACM Technical Symposium on Computing Science Education (SIGCSE '16)*. Association for Computing Machinery, New York, NY, USA, pp. 467-472.

C31. Thomas W. Price, Jennifer Albert, Veronica Cateté, and Tiffany Barnes. 2015. BJC in action: Comparison of student perceptions of a computer science principles course. In *Proceedings of the 2015 Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT),* Vol. 1, pp. 1-4. IEEE.

C32. Andrew Hicks, Veronica Cateté, Rui Zhi, Yihuan Dong, and Tiffany Barnes. 2015. Applying deep gamification principles to improve quality of user-designed levels. In *Proceedings of the 11th Annual Games+Learning+Society Conference (GLS 15).*

C33. Drew Hicks, Veronica Cateté, Tiffany Barnes. 2014. Part of the game: Changing level creation to identify and filter low quality user-generated levels. *Foundations of Digital Games (FDG 2014).* Society for the Advancement of the Science of Digital Games, Fort Lauderdale, FL. Paper 13, pp. 1-8. **BEST PAPER AWARD**.

C34. Veronica Cateté, Katherine Wassell, Tiffany Barnes. 2014. Use and development of entertainment technologies in after school STEM program. In *Proceedings of the 45th ACM Technical Symposium on Computer Science Education (SIGCSE 2014),* Association for Computing Machinery, New York, NY, USA, pp. 163-168.

C35. Evie Powell, Rachel Brinkman, Tiffany Barnes, and Veronica Cateté. 2012. Table tilt: making friends fast. In *Proceedings of the International Conference on the Foundations of Digital Games (FDG '12).* Association for Computing Machinery, New York, NY, USA, pp. 242-245.

Workshop Publications

W1. Veronica Cateté, Nicholas Lytle, Danielle Boulden, Madeline Hinckle, Eric Wiebe, and Tiffany Barnes. 2020. A block-based modeling curriculum for teaching middle grade science students about Covid-19. In *Proceedings of the 15th Workshop on Primary and Secondary Computing*

Education (WiPSCE '20). Association for Computing Machinery, New York, NY, USA, Article 36, 1–2.

W2. Nicholas Lytle, Yihuan Dong, Veronica Cateté, Milliken, Alex, Amy Isvik, Tiffany Barnes. 2019. Position: scaffolded coding activities afforded by block-based environments. In *Proceedings of the 2019 IEEE Blocks and Beyond Workshop (B&B).* pp. 5-7. IEEE.

W3. Nicholas Lytle, Veronica Cateté, Amy Isvik, Danielle Boulden, Yihuan Dong, Eric Wiebe, and Tiffany Barnes. 2019. From 'Use' to 'Choose': Scaffolding CT Curricula and Exploring Student Choices while Programming (Practical Report). In *Proceedings of the 14th Workshop in Primary and Secondary Computing Education (WiPSCE'19)*. Association for Computing Machinery, New York, NY, USA, Article 18, 1–6.

W4. Veronica Cateté, Nicholas Lytle, Yihuan Dong, Danielle Boulden, Bita Akram, Jennifer Houchins, Tiffany Barnes, Eric Wiebe, James Lester, Bradford Mott, and Kristy Boyer. 2018. Infusing computational thinking into middle grade science classrooms: lessons learned. *Proceedings of the 13th Workshop in Primary and Secondary Computing Education (WiPSCE '18).* Association for Computing Machinery, New York, NY, USA, Article 21, pp. 1–6.

W5. Andrew Hicks, Veronica Cateté, Rui Zhi, Yihuan Dong, and Tiffany Barnes. 2015. BOTS: selecting next-steps from player traces in a puzzle game. In *Proceedings of the 2nd International Workshop on Graph-Based Educational Data Mining (GEDM 2015). CEUR-WS*.

W6. Veronica Cateté, Andrew Hicks, Tiffany Barnes, and Collin F. Lynch. 2014. Snag'em: graph data mining for a social networking game. *EDM 2014 Extended Proceedings: Workshop Proceedings of the 7th International Conference on Educational Data Mining*. London, United Kingdom, June 4-7, 2014. Ed. by S. Gutierrez-Santos and O. C. Santos. CEUR-WS.

Abstracts for Posters, Panels, Workshops, & Demos in Conference Proceedings

A1. Amy Isvik, Veronica Cateté, Lina Battestilli, Tiffany Barnes, Jamie Payton, Chelsea Zackey. 2022. STARS Ignite: A Program for Supporting Professors inOrganizing Student Cohorts for Conferences. In *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education (SIGCSE 2022)*. Association for Computing Machinery, New York, NY, USA, 2 pages. [In Press]

A2. Veronica Cateté, Lauren Alvarez, Shuchi Grover, Isabella Gransbury, Brian Broll, Madeline Drayton, Audrey Coats, April Collins, Akos Ledeczi and Tiffany Barnes. 2022. Computer Science Frontiers: New Curricula to Advance Female Interest in Computing. In *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education (SIGCSE 2022)*. Association for Computing Machinery, New York, NY, USA, 2 pages. [In Press]

A3. Yasmin Kafai, Angela Calabrese-Barton, Danielle Labotka, Greg Trevors, Veronica Cateté, Deborah Fields, Jim Slotta. Learning and Teaching about COVID-19: Engaging Students, Teachers and Families in Understanding Infectious Disease Epidemiology. In *E. de Vries, J. Ahn, & Y. Hod (Eds.), 15th International Conference of the Learning Sciences (ICLS 2021)*. International Society of the Learning Sciences, 2021.

A4. Ákos Lédeczi, Shuchi Grover, Veronica Cateté, and Brian Broll. 2021. Beyond CS Principles: Bringing the Frontiers of Computing to K12. In *Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (SIGCSE 2021)*. Association for Computing Machinery, New York, NY, USA, pp. 1379.

A5. Madeline Hinckle, Veronica Cateté, Nicholas Lytle, Tiffany Barnes, and Eric Wiebe. 2021. Agile Curriculum Development: Computational Modeling COVID-19. In *Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (SIGCSE 2021)*. Association for Computing Machinery, New York, NY, USA, pp. 1377.

A6. Amy Isvik, Tiffany Barnes, Jamie Payton, Veronica Cateté, and Lina Battestilli. 2021. STARS Ignite: A Program for Supporting Professors in Organizing Student Cohorts for Conferences. In

Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (SIGCSE 2021). Association for Computing Machinery, New York, NY, USA, pp. 1349.

A7. Veronica Cateté, Dave Bell, Amy Isvik, Nicholas Lytle, Yihuan Dong, and Tiffany Barnes 2020. Bridge to Computing: An outreach program for at-risk young men. In *Proceedings of the 2020 Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT).* Vol. 1, pp. 1-2. IEEE.

A8. Danielle Boulden, Callie Edwards, Veronica Cateté, Nicholas Lytle, Tiffany Barnes, Eric Wiebe, and Dave Frye. 2020. Creating a school-wide CS/CT-focused STEM ecosystem to address access barriers. In *Proceedings of the 2020 Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT),* Vol. 1, pp. 1-2. IEEE.

A9. Alexandra Milliken, Veronica Cateté, Amy Isvik, and Tiffany Barnes. 2020. Poster: Designing GradeSnap for block-based code. In *Proceedings of the 2020 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)*, Vol. 1, pp. 1-2. IEEE.

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Dissertation

D1. Cateté, Veronica Meredith. 2018. A Framework for the Rapid Creation of Quality-Assured Programming Rubrics for New K-12 Computer Science Teachers. North Carolina State University, Raleigh, NC, USA.

Other Publications

O1. Wiebe, E., Boulden, D. C., Hinckle, M., Rachmatullah, A., Leavens, T., Lytle, N., Cateté, V., Barnes, T. (2021, Apr 8 - 12) Middle Schoolers Modeling an Epidemic—From Square Dance to Code [Paper Session]. *AERA Annual Meeting*. Virtual Conference.

O2. Boulden, D. C., Houchins, J. K., Rachmatullah, A., Vandenberg, J., Akram, B., Cateté, V., Lytle, N., Barnes, T. & Wiebe, E. N. (2020, Apr 17 - 21) A Situated Professional Development Approach to Build Teacher Efficacy for Computational Modeling [Paper Session]. *AERA Annual Meeting.* San Francisco, CA.

O3. Houchins, J. K., Boulden, D. C., Rachmatullah, A., Akram, B., Wiebe, E. N., Lytle, N., Cateté, V. & Barnes, T. (2020, Apr 17 - 21) Scaffolding Use, Modify, Create: Facilitating the Progression to

Computational Thinking in Middle-Grades Science [Poster Session]. *AERA Annual Meeting.* San Francisco, CA.

Presentations at Professional Meetings

P1. Eric Wiebe, Madeline Hinckle, and Veronica Cateté. July 2020. Computational Modeling Covid-19 & Epidemics*. NC Science Education Summit*. Virtual Conference. North Carolina Large District Consortium.

P2. Veronica Cateté, Sharon Robinson, Barbara Mulkey, and Katherine Titus-Becker. Women in STEM Panel Discussion (Invited Panel). April 2019. *University Global Partnership Network Conference*. Raleigh, NC, USA.

P3. Veronica Cateté, Donna Polk Hitchings and Joanne Kreisman. Jan 2017. Coding in the Real World, a University, High School Collaboration. *Convergence Conference*. Wake County Public Schools Instructional Technology and Library Services.

P4. Veronica Cateté, Debra Semmler, and Patricia Schafer. 2016. Pivot Academy: A Computing-based STEM program in Rwanda. *STARS Celebration*. STARS Computing Corps.

P5. Debra Semmler, Patricia Schafer, and Veronica Cateté. 2016. Mothering Across Continents: International Outreach in Developing Nations. *STARS Celebration*. STARS Computing Corps.

Invited K-12 Talks and Keynotes

I1. Veronica Cateté, 2021. Lighthouse Projects: Progress through Visibility (Keynote). *STARS Celebration Conference 2021*. (virtual).

I2. Veronica Cateté. 2021. Moving Forward with Encouragement, Hope and Perseverance (Keynote). *Senior Awards Night, West Johnston High School*. Benson, NC, USA.

I3. Veronica Cateté and Amy Isvik. 2020. Do Cool Things That Matter (Invited Talk). *Women in Computer Science club at Enloe High School*. Raleigh, NC, USA.

I4. Alex Milliken and Veronica Cateté April 2017. STEM opportunities and Careers in Computing. *4th & 5th Grade STEM Showcase at Barwell Road Elementary*. Raleigh, NC, USA.

I5. Veronica Cateté, Arpan Chakraborty, Trisha Biswas and Alok Baikadi. Nov 2012. Robotics, Balance, and Motion (2nd grade). *Tech Fridays at Weatherstone Elementary*. Cary, NC, USA.