

DANIELLE C. HERRO, Ph.D.
Curriculum Vita – 2023

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ACADEMIC APPOINTMENTS

2022 - Professor of Learning Sciences/Digital Media and Learning, Clemson University
2012 - 2017 Associate Professor Learning Sciences/Digital Media and Learning, Clemson University
2012 - 2017 Assistant Professor Learning Sciences/Digital Media and Learning, Clemson University, College of Education, Clemson, SC

FORMAL EDUCATION

2010 Ph.D. Curriculum & Instruction, University of Wisconsin – Madison
Advisor: Dr. Constance Steinkuehler
Major: Educational Communication and Technology
Minor: Administrative Leadership and Supervision

Doctoral Thesis: *Exploring Student Practices, Teacher Perspectives, and Complex Learning with Web 2.0 Technologies: A Socio-Constructivist Approach*

1997 M.S. Administrative Leadership and Supervision, University of Wisconsin – Milwaukee
Advisor: Dr. William Kritek

1990 B.S. Elementary Education, University of Wisconsin – Milwaukee
Licensure 42 Elementary – 1-6

PROFESSIONAL BACKGROUND

2007 – 2012 District Technology Administrator, Oconomowoc Area School District, Oconomowoc, Wisconsin

1994 – 2007 Computer Resource Teacher/Technology Integrator Oconomowoc Area School District, Oconomowoc, Wisconsin

1990 – 1994 Elementary School Teacher, Milwaukee Public Schools, Milwaukee, Wisconsin

HONORS, AWARDS and RECOGNITIONS

CLEMSON UNIVERSITY

- 2023 “Outstanding Research Paper Award” – *Journal of Digital Learning and Teacher Education*: Award presented at ISTE Conference, 2023.
- 2023 Nominated for Centennial Professorship, Clemson University
- 2022 Nominated for South Carolina’s Governor’s Award for Scientific Awareness
- 2022 Partner Spotlight, SC Department of Education Computer Science Bytes; NSF funded Research-Practitioner Partnership project highlighted
- 2021 Honorary Distinction Award - Over \$5 Million in Grant Awards, College of Education
- 2021 Honorary Distinction Award – Over \$500,000 as PI on Grant, College of Education
- 2021 Milestone Award, Total Citation Achievement, College of Education
- 2021 Professor of the Game – College of Education/University Recognition
- 2020 Awarded Top Senior Researcher – College of Education
- 2020 Nominated for Senior Researcher of the Year – Clemson University
- 2019 Excellence in Teaching Award – College of Education
- 2019 Recognized as a Clemson Top Researcher - Clemson Board of Trustees
- 2019 CIRCL – NSF Funded Instrumented Learning in Computer-Supported Environments national scholars studying innovative assessment
- 2018 Nominated for Robert Cherry Award for Excellence in Teaching
- 2016 Nominated for Excellence in Research, College of Education
- 2016 Society for Information Technology and Teacher Education Best Paper Award, subsequently published in *Journal of Computers in Mathematics and Science Teaching*
- 2015-16 Clemson University Service Alliance Fellow Award
- 2015-17 Chair of American Education Research Association, Media, Culture & Learning SIG (national/international election)
- 2015 Nominated for Clemson University’s Presidential Award
- 2015 Nominated for Andrew Carnegie Fellows Program in Support of Outstanding Research and Scholarship
- 2015 Clemson Board of Trustees – Recognition for Notable Faculty Achievement
- 2014-16 Playful Learning Fellow/National Fellowship, Ambassador and Advisory position
- 2013-14 Invited to participate as Advisor, CoSN Leading Edge Schools, Research funded by MacArthur Foundation

UNIVERSITY of WISCONSIN, MADISON, and other PROFESSIONAL AWARDS

- 2011-12 Selected to participate in CoSN Leading Edge Schools, Research funded by MacArthur Foundation
- 2011 Selected for Emerging Scholars Program – Arizona State University/funded by MacArthur Foundation
- 2011 Nominated/selected to serve on Wisconsin Department of Education Digital Learning Advisory Council
- 2010 Capital Region Society for Technology in Education Leadership and Vision Award
- 2009 ING Unsung Heroes Award for Innovative Educators
- 1996 Awarded Day-Finch Scholarship for Academic Achievement
- 1996 UW-Milwaukee’s Gala to Teaching Honoree
- 1996 Dean’s List; Graduated with High Honors
- 1990 Dean’s List; Graduated magna cum laude

FELLOWSHIPS

2013–2016 **Edmund W. Gordon MacArthur Foundation/ETS Fellowship
For 21st Century Learning and Assessment**

One of nine scholars awarded national fellowship facilitating collaborative research in digital media, learning and assessment.

2019 – 2020 **Clemson University College of Education Grant Fellow**

Awarded a competitive fellowship to focus on grant-writing and scholarship for an academic year.

2019 - 2020 **Watt Faculty Fellow**

Awarded 1-year competitive fellowship focused on exploring the use of artificial intelligence (AI) to improve teaching and learning in academic disciplines (\$5,000 awarded).

SCHOLARSHIP

Peer-Reviewed Journal Articles ([Google Scholar page](#))

Herro, D., Madison, M., Arastoopour Irgens, G., Hirsch, S., Abimbade, O., & Adisa, J., (2023). Exploring Elementary Teachers' Perceptions of Data Science Curriculum Co-Design through Professional Development. *Journal of Technology and Teacher Education (JTATE)*, 30(4), 493-525. <https://www.learntechlib.org/primary/p/220700/>.

Arastoopour Irgens, G., **Herro, D.**, Adisa, I., Abimbade, O., & Fisher, A. (2023). “Bop or Flop”: Integrating Music and Data Science Education in an Elementary Classroom. *Journal of Experimental Education*. <https://doi.org/10.1080/00220973.2023.2201570>

Herro, D., Frady, K. & O’Hara, R. (Revise & Resubmit). Exploring Technical College Student’s Collaborative Problem Solving and Teamwork Skills in Multi-hierarchical Engineering Design Teams. Submitted to the *European Journal of Engineering Education*.

Arastoopour Irgens, G., Hirsch, S., **Herro, D.**, Madison, M. (2022). Analyzing a Teacher and Researcher Co-design Partnership through the Lens of Equitable Communities of Practice. *Teaching and Teacher Education*. Volume 121 <https://doi.org/10.1016/j.tate.2022.103952>

Carlson, A., Hirsch, S. E., Walters, S., Pilot, E., & **Herro, D.** (2022). Positive behavior interventions and supports videos: A descriptive analysis (2016-2020). *Journal of Special Education Technology*. <https://doi.org/10.1177/01626434221100725>

Herro, D., Quigley, C., Plank, H. & Abimbade, O., Owens, A. (2022). Instructional Practices Promoting Computational Thinking in STEAM Elementary Classrooms. *Journal of Digital*

Learning and Teacher Education. 38(4) pp. 158-172.
<https://doi.org/10.1080/21532974.2022.2087125>

Abimbade, O., Olayoku, P., & **Herro, D.** (2022). Millennial activism within Nigerian Twitterscape: From mobilization to social action of #ENDSARS protest. *Science Direct*. 6(1).
<https://doi.org/10.1016/j.ssaho.2021.100222>

Herro, D., Quigley, C., & Abimbade, D. (2021). Assessing elementary students' collaborative problem-solving during makerspace activities. *Information and Learning Sciences*. 122(11/12), pp. 774-794. <https://doi.org/10.1108/ILS-08-2020-0176>

Herro, D., McNeese, N., O'Hara, R., Frady, K., & Switzer, D. (2021) Exploring Graduate Students' Collaborative Problem-Solving in Engineering Design Tasks. *Journal of Engineering Design*. 32(9) pp. 496-516
<https://doi.org/10.1080/09544828.2021.1922616>

Herro, D., Visser, R., & Qian, M. Teacher Educators Perspectives and Practices towards the Technology Education Technology Competencies (TETCs) (2021). *Technology, Pedagogy and Education*. 30(5)pp. 623-641. <https://doi.org/10.1080/1475939X.2021.1970620>

Herro, D., Quigley, C.F., & Plank, H., & Abimbade, D. (2021). Understanding Students' Peer Interactions During Making Activities Designed to Promote Computational Thinking. *Journal of Educational Research*. 114(2). 183-195. <https://doi.org/10.1080/00220671.2021.1884824>

Quigley, C.F., **Herro, D.**, King, E., and Plank, H. (2020) STEAM Designed and Enacted: Understanding the Process of Design and Implementation of STEAM Curriculum in an Elementary School. *Journal of Science and Technology Education*.
<https://doi.org/10.1007/s10956-020-09832-w>

Herro, D., Hirsch, S., & Quigley, C.F. A Faculty-in-Residence Program: Enacting Practice-Based Professional Development in a STEAM-focused Middle School (2019). *Professional Development in Education*. <https://doi.org/10.1080/19415257.2019.1702579>

Quigley, C.F., **Herro, D.**, Shekell, C., Cian, H., & Jacques, L. (2019). Connected Learning in STEAM Classrooms: Opportunities for Engaging Youth in Science and Math Classrooms. *International Journal of Science and Mathematics Education*. Volume 18. 1441-1463.
<https://doi.org/10.1007/s10763-019-10034-z>

Jacques, L., Cian, H., **Herro, D.** & Quigley, C. (2019). The Impact of Questioning Techniques on STEAM Instruction. *Action in Teacher Education*. 42(3). 290-308.
<https://doi.org/10.1080/01626620.2019.1638848>

Soliamani, A, **Herro, D.**, & Green, K. (2019). CyberPLAYce: A Tangible, Interactive Learning Tool Fostering Children's Computational Thinking through Storytelling. *International Journal of Child-Computer Interaction*. (20) pp. 9-23. DOI: [10.1016/j.ijcci.2019.01.002](https://doi.org/10.1016/j.ijcci.2019.01.002)

Herro, D., Quigley, C.F., Cian, H. (2018). The Challenges of STEAM Instruction: Lessons from the Field. *Action in Teacher Education*. DOI: <https://doi.org/10.1080/01626620.2018.1551159>

- Herro, D.,** Li, J., & Davis, A. (2018). A Case Study Exploring How Pokémon Play Shapes Identity. *Digital Culture and Education*. 10 (2). 77-95.
- Herro, D.,** Quigley, C., & Jacques, L. (2018). Examining technology integration in middle school STEAM units. *Technology, Pedagogy and Education*. 27(4). 485-498. DOI: 10.1080/1475939X.2018.1514322
- Herro, D.,** Quigley, C., Andrews, J., & DeLaCruz, G. (2017). Co-Measure: Developing an assessment for student collaboration in STEAM activities. *International Journal of STEM Education*. 4 (26) DOI: 10.1186/s40594-017-0094-z
- Herro, D.** & Qian, M., & Jacques (2017). Perspectives on a faculty-in-residence Program: A school-university partnership to increase teacher use of digital media for learning. *Journal of Digital Learning in Teacher Education*. 33(1), 32-42.
- Quigley, C., **Herro, D.,** and Jamil, F. (2017). Developing a STEAM classroom assessment of learning experiences. *School Science & Mathematics*. 117(1-2), 1-12.
- Quigley, C.F., Harrington, J., and **Herro, D.** (2017) Moving beyond just adding “A” to STEM: Arts as expression. 40(9). *Science Scope*.
- Herro, D.,** Lin, L., & Fowler, M. (2017). Meet the (media) producers: Artists, composers and gamemakers. *Journal of Applied Research in Higher Education* special issue on “Reviewing the Performance and Impact of Social Media Tools in Higher Education”. 9(1).
- Herro, D.,** Quigley, C., & Dsouza, N. (2016). STEAM Enacted: A Case Study Exploring Middle School Teachers Implementing STEAM Instructional Practices. *Journal of Computers in Mathematics and Science Teaching*. 35(4), 319-342
- Herro, D.** & Quigley, C. (2016). Innovating with STEAM in Middle School Classrooms: Remixing Education. *On the Horizon*. 24(3). *invited
- Herro, D.** & Quigley, C. (2016). Exploring Teacher Perceptions of STEAM: Implications for Practice. Published in the *Journal of Professional Development in Education (PDE)*. 43(3), 416-438. DOI: 10.1080/19415257.2016.1205507.
- Quigley, C. & **Herro, D.** (2016). Finding the joy in the unknown: Implementation of STEAM teaching practices in middle school science and math classrooms. *Journal of Science Education and Technology (JOST)*. 25(3), 410-426. DOI: 10.1007/s10956-016-9602-z
- Herro, D.** & Clark, R. (2016). Creating an academic home: Games as unifying influences across disciplines. *On The Horizon*. 24(1), 17-28.
- Herro, D.** (2016). An ecological approach to learning with technology: Responding to tensions within the “Wow-Effect” phenomenon in teaching practices. *Cultural Studies of Science Education (CSSE)*. 11(4), 909-916. DOI 10.1007/s11422-015-9688-2
- Wilder, P. & **Herro, D.** (2016). Lessons learned: Collaborative symbiosis and responsive disciplinary literacy teaching. *Journal of Adolescent and Adult Literacy (JAAL)*. 59(5), 539-549. DOI: 10.1002/jaal.476

Kiger, D., & Herro, D. (2015). BYOD: Parental discretion advised. *TechTrends* 59(5), 51-61. DOI: 10.1007/s11528-015-0891-5

Herro, D. (2015). Gaming the system: Culture, process, and perspectives on game and app design in school. Published in *The Curriculum Journal*. 26(4), 579-600. Doi: 10.1080/09585176.2015.1056819

Herro, D., Gardner, C., & Boyer, D., (2015). App Inventor: Pathways for their future. Published in the *Journal for Computing Teachers* (JCT), Winter, 2015.

Herro, D. (2015). Implementing game design in school: A worked example. Published in the *Canadian Journal of Learning and Technology* (CJLT), 41(2).

Leonard, A., Hall, A., & Herro, D. (2015). Dancing literacy: Expanding childrens' and teachers' literacy repertoires through embodied knowing. Manuscript published in the *Journal of Early Childhood Literacy* (JECL). Online first, June, 2015. DOI:10.1177/1468798415588985

Herro, D. (2015). Sustainable innovations: Bringing digital media, games and emerging technologies to the classroom. Published in *Theory into Practice*, (TIP), 54(2), 117-127.

Herro, D. (2014). Techno Savvy: A web 2.0 curriculum encouraging critical thinking. Published in *Education Media International* (EMI). 51(4), 259-277. DOI: 10.1080/09523987.2014.977069 Online first, October; in print December 2014.

Herro, D., Kiger, D., & Owens, C. (2013). Mobile Technology: Case-Based Suggestions for Classroom Integration and Teacher Educators. *Journal of Digital Learning in Teacher Education* (JDLTE), special themed issue on "Mobile Technology in Teacher Education." 30(1), 30-40.

Kiger, D., Herro, D., & Prunty, D. (2012). Examining the influence of a mobile learning intervention on third grade math achievement. *Journal of Research on Technology in Education* (JRTE). 45(1), 61-82.

Reprinted (2012). Herro, D. & Steinkuehler, C. A. Web 2.0 literacy & secondary teacher education, *Australian Educational Computing*, 27(1), 15-22.

Herro, D. & Steinkuehler, C.A. (2010). Web 2.0 literacy & secondary teacher education, *The Journal of Computing in Teacher Education* (JCTE), 26(2).

Published Book

Quigley, C., & Herro, D. *An Educators Guide to STEAM: Engaging Students Using Real-World Problems*. (2019). New York: Teachers College Press. **3,000+ copies sold.**

Peer Reviewed Book Chapters

Quigley, C.F., Herro, D., & Weatherbee, L. (2022) School-Cafeteria Make-Over Real-World Style. Tippins, D. Sexton, C., Lin, M.(Eds.) In *Controversial Issues for Science Teachers*. Springer.

Herro D., Quigley C. (2020) Investigating the complexity of developing STEAM curricula for K-8 students. In: Stewart A., Mueller M., Tippins D. (eds) *Converting STEM into STEAM*

Programs. Environmental Discourses in Science Education, vol 5. Springer, Cham.

Quigley C.F., **Herro D.**, Baker A. (2019) Moving toward transdisciplinary instruction: A longitudinal examination of STEAM teaching practices. In: Khine M., Areepattamannil S. (Eds.) *STEAM Education*. Springer, Dordrecht.

Wilder, P., & **Herro, D.** (2015). Supporting inquiry with digital texts in school disciplines. In Rasinski R., Pytash K., & Ferdig R. (Eds.) *Using Technology to Enhance Reading: Innovative Approaches to Literacy Instruction*. Solution Tree Press. Bloomington: IN. pp. 1-21.

Herro, D. (2013). Elements of game design: Developing a meaningful game design curriculum for the classroom. In Y. Baek, & N. Whitton (Eds.), *Cases on Digital Game-Based Learning: Methods, Models, and Strategies* (pp. 240-255). Hershey, PA: Information Science Reference. doi:10.4018/978-1-4666-2848-9.ch013

Edited Books and Series

Herro, D. & Kalir, R. (2018-2020). Series Editor for 3 books/volumes in Digital Media and Learning. Charlotte: IAP Publishing.

Herro, D., Arafteh, S., Ling, R., & Holden, C. (Eds). (2018). *Mobile Learning: Policies and Perspectives*. Charlotte: IAP Publishing. *Lead Editor on book.

Dunston, P. J., Fullerton, C. C., Cole, M., **Herro, D.**, Malloy, J. & Wilder, P., & Headley, K. (Eds.), (2014). 63rd Yearbook of the Literacy Research Association. Altamont Springs, FL: Literacy Research Association.

Dunston, P. J., Fullerton, S. K., Bates, C. C., Cole, M., Hall, A., **Herro, D.**, & Headley, K., & Stecker, P. M. (Eds.), (2013). 62nd Yearbook of the Literacy Research Association. Oak Creek, WI: Literacy Research Association.

Articles Undergoing Referred Review

Herro, D. Abimbade, O., Adisa, I. (2023). *Supporting Elementary Students' Data Science Literacies through Connected Learning*. Under Review.

Adisa, I., **Herro, D.**, Abimbade O., & Arastoopour-Irgens (2023). *Engaging Elementary Students in Data Science Practices*. Revise/Resubmit.

Quigley, C.F., **Herro, D.**, Plank, H. & Owens, A. (2022). *Transforming Computer Science Education: Exploration of Computer Science Interest and Identity of Historically Underrepresented Youth*. Revise/Resubmit.

Articles in Process

Hirsch, S., **Herro, D.**, & Kelley, M. et al. (2023). *Elementary Teachers' Understanding and Implementation of UDL Practices in Data Science Instruction*. In process.

Published Refereed Conference Proceedings

Herro, D., Abimbade, O., & Adisa, I. (2023). Connected Learning to Engage Elementary

Students in Data Science. *Proceedings of the 2022 Connected Learning Summit*. ETC Press, Carnegie Mellon University.

Baker, A., Bennett, A., **Herro, D.** & Quigley, C. (2020). Elementary Student Perspectives of a STEAM-based Makerspace: Connections to Real-World Contexts. In D. Schmidt-Crawford (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 1277-1281). Online: Association for the Advancement of Computing in Education (AACE). <https://www.learntechlib.org/primary/p/216039/>.

Herro, D., Quigley, C., Jacques, L. & Baker, A. (2017). Examining Technology Integration in Middle School STEAM Units. In P. Resta & S. Smith (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2017* (pp. 1614-1623). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

Soleimani, A., Green K.E., **Herro D.**, and Walker I., (2016). A tangible, story-construction process employing spatial, computational-thinking. Paper presented in Manchester, United Kingdom, June 21-24. In *Proceedings of The 15th International Conference on Interaction Design and Children* (IDC '16). ACM, New York, NY, USA, 157-166. DOI: <http://dx.doi.org/10.1145/2930674.2930703>

Herro, D., King, E., Jacques, L. & Wersinger, B. (2016). Games as a unifying influence in education: Faculty and student perspectives of game-based learning. In *Proceedings of Society for Information Technology & Teacher Education International Conference 2016* (pp. 481-485). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

Herro, D. & Quigley, C. (2016). STEAM enacted: A case study of a middle school teacher implementing STEAM instructional practices. In *Proceedings of Society for Information Technology & Teacher Education International Conference 2016* (pp. 1373-1380). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).

Herro, D., & Lin, L. (2016). Meet the media producers. Proceedings published in the *11th Annual Games+Learning+Society (GLS) Conference*. Pittsburgh, PA. ETC Press.

Soleimani, A., Green, K. E., **Herro, D. C.**, Walker, I. D. & Gardner-McCune, C. (2015) CyberPLAYce, a cyber-physical-spatial storytelling tool: Results from an empirical study with 8-10-year-old storytellers. *Proceedings of HCI International 2015 (Los Angeles, CA, USA, August 2-7, 2015)*. In *Learning and Collaboration Technologies, LCT 2015, HCII 2015*, Springer International Publishing Switzerland 2015, pp. 438–446. DOI: 10.1007/978-3-319-20609-7_41

Herro, D., & Jacques, L. (2015). Perspectives on a faculty-in-residence program: A school-university partnership to increase teacher use of digital media for learning. In *Society for Information Technology & Teacher Education International Conference* (Vol. 2015, No. 1, pp. 8448-8453).

Herro, D., Boyer D.M., McCune-Gardner, C. (2015). Adolescents and app development in middle school classrooms. Proceedings published in the *10th Annual Games+Learning+Society (GLS) Conference*. Pittsburgh, PA: ETC Press.

Soleimani, A., Green, K. E., Walker, I. D., Gardner-McCune, C., **Herro, D.** (2014). “CyberPLAYce -- A play space of creative, intelligent tools promoting personal and computational expression for early learners.” In *Proceedings of DIS 2014, the ACM conference*

on *Designing Interactive Systems*, Vancouver, B.C., Canada, pp. 191-194.

Soleimani, A., Smith, K., Zeng, J., Green, K. E., **Herro, D.**, Santiago, J., Sharma, S. Tonapi, M., Vijaykumar, A., Walker, I., & Gardner-McCune, C. (2014). Learning with CyberPLAYce; a cyber-physical learning environment for elementary students promoting computational expression. In *Proceedings of CHI 2014: the ACM Conference on Human Factors in Computing Systems*, Toronto, Ontario, Canada, pp. 165-166, (archived video).

Boyer, D.M., **Herro, D.**, Daly, S., & Gilbert, J. (February, 2014). Collaboration in context: A working example for connecting university stakeholders in digital media & learning. Proceedings published in the *9th Annual Games+Learning+Society (GLS) Conference*. Pittsburgh, PA: ETC Press.

Herro, D. (2013). Moving forward with games in schools. In *Society for Information Technology & Teacher Education International Conference* (Vol. 2013, No. 1, pp. 2851-2855).

Herro, D., King, E., Liu, K., Boyer, D.M. & Owens, C. (2013). Building Comprehensive Digital Media and Learning Programs with Teachers. In R. McBride & M. Searson (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2013* (pp. 1336-1340). Chesapeake, VA: AACE.

Herro, D. (2013). Game design in a traditional high school: A worked example. Proceedings published in the *8th Annual Games+Learning+Society (GLS) Conference*. Pittsburgh, PA: ETC Press.

Herro, D., Leonard-Witte, S., & Owens, C. (2011) War stories: One district's venture into social media, games, and emerging technologies. In M. Koehler & P. Mishra (Eds.), *Proceedings of Society for Information Technology and Teacher Education International Conference 2011* (pp. 2977–2983). Chesapeake, VA: AACE

Steinkuehler, C., King, E., Alagoz, E., Anton, G., Chu, S., Elmergreen, J., Fahser-**Herro, D.**, Harris, S., Martin, C., Ochsner, A., Oh, Y., Owen, V. L., Simkins, D., Williams, C., & Zhang, B. (2011). Let me know when she stops talking: Using games for learning without colonizing play. In C. Steinkuehler, C. Martin, & A. Ochsner (Eds.), *Proceedings of the 7th Annual Games+Learning+Society (GLS) Conference*. Pittsburgh PA: ETC Press.

Herro, D. (2010). Web 2.0 in the classroom: Student practices, teacher perspectives. In D. Gibson & B. Dodge (Eds.), *Proceedings of Society for Information Technology and Teacher Education International Conference 2010* (pp. 2737–2742). Chesapeake, VA: AACE.

Book Reviews

Herro, D. & Li, J. (2016, December). Review of the book *Learning through digital game design and building in a participatory culture: An enactivist approach* by Qing Li. Teachers College Record. Publisher: Peter Lang Publishing, New York. Available at <http://www.tcrecord.org/Content.asp?ContentID=21760>

Whitepapers

Quigley, C., **Herro, D.**, Petersen, G., Lee, C., High, K. (2015). *Developing a STEAM ecosystem to increase the STEM Workforce in South Carolina*. Clemson University, invited white paper on creating an interdisciplinary STEAM Ecosystem to benefit K-12 education.

Chamberlain, A., Dronenm, M., **Herro, D.**, Keen, M., Kelley D., Mathews, A., Mundy D., Tenney L., Vinogradov P., & James Bosco (ed.). (2013). *Seven keys to unlocking school transformation with digital media*. Consortium for School Networking (CoSN), Leading Edge Cadre, invited whitepaper on systemic transformation to impact learning with digital media in schools.

Refereed International/National Presentations

**denotes presentations with graduate student(s)*

Herro, D., & Quigley, C. (2023, May). *Reimagining Computer Science Curriculum: Co-Designing Computational Thinking Lessons in Primary Classrooms*. Paper presented at the Athens Institute for Education & Research Conference, Athens, Greece. May 15-17, 2023.

*Arastoopour Irgens, G., **Herro, D.** & Adisa, I. (2023, June). *GROOVA: A Data Visualization Tool for Elementary School Students Co-Designed by Teachers and Researchers*. Poster accepted for presentation at International Society Learning Sciences Conference. Montreal, CA.

***Herro, D.**, Abimbade, O., Adisa, I., Arastoopour Irgens., et al., (2023, April). *Supporting Elementary Students' Data Science Literacies Through Interest-based Learning*. Paper accepted at American Education Research Association Annual Meeting. Chicago, Ill.

*Arastoopour Irgens, Fisher, A., **Herro, D.**, Adisa, I., & Abimbade, O. (2023, April). *A Teacher Case Study on Integrating Music and Data Storytelling for Elementary School Students*. Paper accepted at American Education Research Association Annual Meeting. Chicago, Ill.

*Quigley, C., **Herro, D.**, Plank, H., & Abimbade, O. (2023, April). *Transforming Computer Science Education: An Exploration of Computer Science Interest and Identity of Historically Underrepresented Youth*. Paper accepted at American Education Research Association Annual Meeting. Chicago, Ill.

***Herro, D.**, Abimbade, O., & Adisa, I. (2022). *Connected Learning to Engage Elementary Students in Data Science*. Paper presented at the Connected Learning Summit, July 27-29, virtual conference.

***Herro., D.**, Quigley, C., Plank, H., & Abimbade, O. (2022, April 21-26). *Instructional Practices Promoting Computational Thinking in STEAM Elementary Classrooms*. Poster presented at American Education Research Association (AERA), virtual conference, United States.

***Herro, D.**, Quigley, C., Plank, H. & Abimbade, O., (2021, April 9-12). *Promoting equity through collaboration: Exploring youth social interactions during making activities*. [Paper presentation]. American Education Research Association (AERA), virtual conference, United States.

*Quigley, C., **Herro, D.**, Plank, H. & Owens A. (2021, April 9-12). *"Girls are crafty, that's why I like coding": Increasing occupational identify of girls of color with computational thinking during collaborative problem solving*. [Paper presentation]. American Education Research Association (AERA), virtual conference, United States.

*Bennett, C., Shekell, C., Quigley, C., & **Herro, D.** (2021, April 9-12). *STEAM Conceptualizations and Supports in Two Schools: A Leadership for Learning Perspective*. [Paper presentation]. American Education Research Association (AERA), virtual conference, United States.

*Quigley, C.F., **Herro, D.** Plank, H. (2021) *STEAM Curriculum Design and Implementation: Understanding Curricular Changes in an Elementary School*. NARST Annual International Conference. Orlando, FL. (moved to virtual conference)

*Quigley, C., **Herro, D.** & Plank, H (2021) *STEAM Designed and Enacted: Understanding the Process of Design and Implementation of STEAM Curriculum in an Elementary School*. Association of Science Teacher Educators (ASTE). Salt Lake City, Utah. (moved to virtual conference)

*Quigley, C., **Herro, D.** Plank, H., Owens, A. Lojek, V. & Edkins, S (2021-January) Conference Workshop: “*One Student Does All the Work*”: Rethinking Collaboration for Computational Thinking Settings. Association of Science Teacher Educators (ASTE). Salt Lake City, Utah. (moved to virtual conference)

*Quigley, C.F., Plank, H. Lojek, T., Payne, S. Owens, A., **Herro, D.** (2020-October) “*Just like Peas and Carrots*”... Computational Thinking and Collaborative Problem-Solving Go Hand-in-Hand to Promote Equity in the Classroom. National Science Teacher Association (NSTA), Pittsburgh, PA. (Conference cancelled)

Quigley, C.F., and **Herro, D.** (2020-October) *Educator's Guide to STEAM: Engaging Students in Real-World Problem-Solving*. National Science Teacher Association (NSTA), Pittsburgh, PA. (Conference cancelled)

Herro, D., Quigley, C., Burke, N., Larson, D. (2020, August) *STEAM Education for All: Promoting Interest-based Learning, Student Inquiry and Making to Solve Real World Problems*. Play-Make-Learn Conference. University of Wisconsin. Madison, WI. (moved to virtual conference).

*Baker, A., Bennett, A., **Herro, D.**, & Quigley, C. (2020, April). *Elementary student perspectives of a STEAM-based makerspace: Connections to real-world contexts*. Paper presented at the Society for Information Technology & Teacher Education International Conference 2020. New Orleans, LA: Association for the Advancement of Computing in Education (AACE).

*Wilcox, A. & **Herro, D.** (2020, April). “*As if it had happened at our school*”: Social Media and Youth Activism after Parkland. Paper accepted at the American Educational Research Association Annual Meeting April 17-21, 2020, San Francisco, CA. (conference canceled).

Quigley, C.F. & **Herro, D.** (2019, May) *Re-Thinking Transdisciplinary Teaching through STEAM Teaching Practices*. University of Helsinki School of Education’s Research Symposium.

Herro, D., Hirsch, S., & Quigley, C. (2019, April) *Exploring the Impact of School-University Collaborative Partnership through a Faculty-in-Residence Program*. Paper presented at AERA, 2019 in Toronto, CA.

Herro et al. (2019, April). *Connected Learning and Equitable Participation for Youth*:

Bridging the Home-School Participation Gap. Organizer/presenter structured poster session in collaboration with 7 academic institutions presented at AERA, 2019 in Toronto, CA.

Quigley, C., & **Herro, D.** (2019, April). *STEAM Education: Supporting Teachers in Transdisciplinary Teaching*. Paper presented at AERA, 2019 in Toronto, CA.

Quigley, C., **Herro, D.**, (2019, March). *Democratizing Classrooms: Exploring the Relationship of Connected Learning, Design Thinking, and STEAM Instruction to Engage Students in Activism*. Workshop presented at NARST, Baltimore, MD.

***Herro, D.**, & Quigley, C., Cian, H. (2018, March) *Teachers' Perspectives of STEAM Instructional Challenges*. Paper presented at the Society for Technology in Teacher Education (SITE), March 26-30. Washington, D.C.

*Baker, A., Bennett, A, **Herro, D.**, & Quigley, C. (2018, March). *Developing STEAM Problem-solving units through the Lens of Cognitive Apprenticeship*. Paper presented at the Society for Technology in Teacher Education (SITE). March 26-30, Washington, D.C.

*Li, J., Davis, A. & **Herro, D.** (2018, April). *A Multi-case Study Exploring How Pokémon Play Shapes Identity*. Paper presented at American Education Research Association (AERA), New York: NY.

Herro, D. & Quigley, C. (2017, October). STEAM Workshop and paper presented at Digital Media and Learning Conference, UC-Irvine, Irvine, CA.

*Cian, H., Jacques, L. A., Quigley, C., **Herro, D.** (2017, April). *The Impact of Questioning Techniques on STEAM Instruction*. Paper presented at annual meeting of National Association of Research in Science Teaching (NARST), San Antonio, TX.

Herro, D., Quigley, C., & Andrews, J. (2017, April). *Developing an assessment for students' collaborative problem solving in STEAM activities*. Paper presented at American Education Research Association (AERA) in San Antonio, Texas. April-May, 2017.

*Quigley, C., **Herro, D.**, Cian, H., and Jacques, L. *Examining STEAM instructional approaches in middle school classrooms*. (2017, April). Paper presented at American Education Research Association (AERA), San Antonio, Texas. April-May, 2017.

***Herro, D.** Quigley, C., Jacques L., & Baker, A. (2017, March). *Examining technology integration in middle school steam units*. Paper presented at the Society for Technology in Teacher Education (SITE), March 5-9, Austin, TX.

Herro, D., Quigley, C., Andrews, J., DeLaCruz, G., & Holmes, J. (2017, July). *Co-Measure: Developing a rubric to assess student collaboration in STEAM*. Paper presented at the International Testing Conference, July 1-4, Vancouver, British Columbia.

Quigley, C.F., **Herro, D.** & Jamil, F.M. (2016, April) *Towards a conceptual model of STEAM instructional practices*. Paper presented at NARST: A Worldwide Organization for Improving Science Teaching and Learning Through Research. Baltimore, M.D

Quigley, C.F., **Herro, D.** & Jamil, F. (2016, April). *STEAM conceptual model: Towards transdisciplinary teaching*. Paper presentation at the annual meeting of the American Educational

Research Association held April 17-22, 2016, Washington, D.C.

Herro, D., & Qian, M. (2016, April). *Perspectives on a faculty-in-residence program: A school-university partnership to increase teacher use of digital media for learning*. Paper presented at the American Education Research Association (AERA) held April 7-12, 2016, Washington, D.C.

Herro, D. & Quigley, C. (2016, April). *Teacher perceptions of STEAM practices: Professional development encouraging STEM teaching*. Paper presented at the American Education Research Association (AERA) held April 7-12, 2016, Washington, D.C.

***Herro, D., King, E., Jacques, L., and Wersinger, B.** (2016, March). *Games as a unifying influence in education: Faculty and student perspectives of game-based learning*. Panel discussion at the Society for Information Technology and Teacher Education, (SITE) held March 21-25, 2006. Savannah, Georgia.

Herro, D., & Quigley, C. (2016, March). **STEAM Enacted: A case study of a middle school teacher implementing STEAM instructional practices*. Paper presented at the Society for Information Technology and Teacher Education. (SITE) held March 21-25, 2006, Savannah, Georgia. * Paper recognized for high reviewer scores/best paper.

Quigley, C.F., **Herro, D.** & Jamil, F. (2016, January). *STEAM classroom assessment of learning environment: Transdisciplinary teaching practices for science teachers*. Paper presented at annual international conference of The Association for Science Teacher Education (ASTE), Reno, Nevada.

Quigley, C.F., & **Herro, D.** (2015, August) *Middle school science and math teachers' perceptions of STEAM professional development*. European Science Education Research Association (ESERA), held August 30- September 4, 2015, Helsinki, Finland.

Herro, D., Holden, R., Dikkers, S., King, E. (2015, July). *Adapting games as teaching solutions to persistent problems*. Workshop presented at the 11th Annual Games+Learning+Society (GLS) Conference held July 7-10, 2015, Madison, WI.

***Herro, D. & Lin, L.** (2015, July). *Meet the (media) producers*. Paper presented at 11th Annual Games+Learning+Society Conference held July 7-10, 2015, Madison, WI.

Herro, D. & Jacques, L. (2015, March). *Perspectives on a faculty-in-residence program: A school-university partnership to increase teacher use of digital media for learning*. Paper presented at the Society for Information Technology and Education (SITE), Las Vegas, Nevada, 2015.

Kiger D., & **Herro, D.** (2015, April). *Bring your own device (BYOD): Parental influences and improvement suggestions*. Paper presented at Educational Research Association (AERA), to be held April 16-20, 2015, Chicago, IL.

Herro D., Dikker, S., King E., Holden J., & Beaver, R. (2015, April). *Playful learning: A national initiative moving game-based learning forward in schools*. Poster and paper presented at Educational Research Association (AERA), held April 16-20, 2015, Chicago, IL.

Herro, D. & Stinnett, P. (2014, June). *Unity goes to School: Playing with aesthetics and mechanics in a high school gaming course*. Peer-reviewed workshop presented at Games + Learning+Society Conference, June 10-14, Madison, WI.

Herro, D., McCune-Gardner, C., & Boyer, M. (2014, June). *Tinkering and computational thinking: Adolescents and app development in middle school classrooms*. Paper presented at Games+Learning+Society (GLS) Conference 2014. Madison, WI.

Herro, D. (2014, March). *Connecting institutions: Tracking a (Connected) learning ecology from theory to practice*. Presentation at Digital Media and Learning (DML) 2014 Conference held March 6-9 in Boston, MA.

Herro, D., Boyer, M., and McCune-Gardner C. (2014, March). *Teachers using app development to teach computational thinking: Informing the field*. Structured poster session entitled, Research on Digital Media, Games, and Simulations in Teacher Education, in collaboration with 9 academic institutions, presented at American Educational Research Association (AERA), Philadelphia, PA, April 3-7, 2014.

Herro, D. (2014, April). *Game & app design in school: Process and perspectives from the field*. Paper presented at Annual Meeting of the American Educational Research Association American Education (AERA) in Philadelphia, PA, April 3-7, 2014.

Boyer, D.M., **Herro, D.**, & Gardner-McCune, C. (2014, April). *Developing computational thinkers: A working example for using app programming with middle school students*. Poster presented at the American Educational Research Association (AERA) Conference, Philadelphia, PA, April 3-7, 2014.

Herro, D., Stinnett P., & Krenz, K. (2013, June). *Game and app design to teach computational thinking in high school*. Presented at the 9th Annual Games+Learning+ Society (GLS) Conference: Playful Learning Summit, Madison WI, June 11.

Boyer, D.M., **Herro, D.**, Daly, S., & Gilbert, J. (2013, June). *Collaboration in context: A working example for connecting university stakeholders in digital media & learning*. Presented at the 9th Annual Games+Learning+Society (GLS) Conference, Madison WI, June 12-14.

Herro, D. (2013, April). *Elements of game design in high school: A worked example*. Paper presented at the Annual Meeting of the American Educational Research Association American Education (AERA), San Francisco, CA. April 27-May 1, 2013.

Herro, D. (2013, March). *Moving forward with games in schools*. Paper presented at the Society for Information Technology and Teacher Education, March 25-25, 2013, New Orleans, LA.

Herro, D., Boyer, D.M., King, B. (2013, March). *Building comprehensive digital media and learning programs with teachers*. Presented at the Society for Information Technology and Teacher Education held March 25-25, 2013, New Orleans, LA.

Herro, D., & Owens, C. (2013, March). *Building (mobile) bridges for effective teaching and learning*. Paper presented at Society for Information Technology and Teacher Education to be held March 25-25, 2013, New Orleans, LA., March 21-25

Herro, D., & Stinnett P. (2012, June). *Bringing game play and game design to the classroom*. Presented at the 8th Annual Games+Learning+ Society (GLS) Conference: Educators Symposium. Madison WI, June 12.

Herro, D. & King, B. (2012, June). *Using working examples to bridge research and practice with digital media and learning*. Presented at the 8th Annual Games+Learning+ Society (GLS) Conference: Educators Symposium. Madison WI, June 13-15.

Steinkuehler, C., Martin, C., Harris, S., **Herro, D.**, Elmergreen, J., Chu, S., Anton, G., Alagoz, E., King, B., Ochsner, A. & Owen, L (2011, June). *Let me know when she stops talking: Using games for learning without colonizing play*. Presented at the 7th Annual Games+Learning+ Society (GLS) Conference, Madison WI, June 15-17.

Herro, D. (2010, April). *Supporting critical thinking frameworks with Web 2.0 technologies*. Poster presented to the America Education Research Association (AERA), Denver, CO, April 30 - May 4, 2010.

Herro, D. (2009, June). *Techno savvy: Designing a framework for digital literacy in middle school classrooms*. Poster presentation at Games+Learning+Society (GLS) Conference, Madison WI., June 10-12.

Steinkuehler, C. King, E.M., Fahser-**Herro, D.**, Simkins, D., Alagoz, E. (2009, April). *Digital literacies for the disengaged: Creating after-school online game-based environments for boys*. Presented at the Annual Meeting of the America Educational Research Association (AERA), San Diego, CA, April 13-17.

Steinkuehler, C., Duncan, S., King., Simkins, D., Fahser-**Herro, D.**, & Alagoz, E. (2009, April). *Mixed methods research in virtual worlds*. Presented at the Annual Meeting of the America Educational Research Association (AERA), San Diego, CA, April 13-17.

Herro, D., (2008, July). *Student construction of knowledge using Web 2.0 technologies*. Poster presentation at Games+Learning+Society (GLS) Conference, Madison WI, July 10-11.

Steinkuehler, C.A., King, E.M., Fahser-**Herro, D.**, Simkins D., Alagoz E. (2008, June). *Digital Literacies for the disengaged: Creating after school contexts to support boys' game-based literacy skills*. Presented at the 7th International Conference on Interaction, Design & Children, Northwestern University, June 11-13.

Keynotes, Presentations, Talks and Interviews

**denotes invited keynotes or symposia series

Quigley, C., & **Herro, D.** (2021, March/May). A Research-based Approach to Fostering STEAM Instruction in K-12 Schools. Invited meetings and STEAM book talk with Los Angeles Unified School District (LAUSD).

****Herro, D.** & Quigley, C. (2021, May). STEAM Talks: Boas Practicas STEAM. Invited symposium. Research Center on Didactics and Technology in the Education of Trainers, Department of Education and Psychology, University of Aveiro, Portugal.

Herro, D. (2019, December). The Hechinger Report. Invited interview by Gail Robinson.

Herro, D. (2019, November) EdWeek. Invited blog post hosted by Larry Ferlazzo. *Start with the content and not with the tech.* Available at: http://blogs.edweek.org/teachers/classroom_qa_with_larry_ferlazzo/2019/11/start_with_the_content_and_not_with_the_tech.html

Herro, D. (2019, October). Equitable Participation for Young Learners: STEAM Instruction, Making+Collaboration. Invited talk at Watt Center for Watt Faculty Fellows.

****Herro, D.** (2018, November). Enabling Equitable Participation for Youth: Bridging the Gap(s) between Digital Culture, Interest-based Learning and Education. Invited speaker for Learning Sciences Colloquium Series. November 16. University of Buffalo, Buffalo, N. Y.

Herro, D., & Quigley, C. (2018, September). Innovating with Digital Media and STEAM Instruction in Teacher Education Programs. Invited presentation, ENS Rabat: School Normale Supérieure. Rabat, Morocco.

Quigley, C.F. & **Herro, D.** (2017, May). A Longitudinal Study of Implementation Practices of STEAM Teaching. Invited talk at Universitat de Autònoma de Barcelona. Barcelona, Spain.

Herro, D. & Quigley (2017, May) Developing an Assessment for Students' Collaborative Problem Solving in STEAM Activities. Invited workshop at STEM Research Forum. Universitat de Autònoma de Barcelona. Barcelona, Spain.

Herro., D. (2016, June). **Education Week Interview.** *5 schools of education making ed tech a priority.* Invited interview to discuss digital media and learning in teacher preparation programs; interviewed by Madeline Will. Available at: <http://www.edweek.org/ew/articles/2016/06/09/5-schools-of-education-making-ed-tech.html>

Herro, D. & Quigley (2016) *The STEAM Collective: Learning in the Digital Age.* Eugene T. Moore School of Education Engagement Day. Clemson University. March 4, 2016.

Herro, D., Dikkers, S., OMalley, C., Isaacs, S. (2015). *Playful learning report.* Invited panel at the 11th Annual Games+Learning+Society (GLS) Conference held July 7-10, 2015, Madison, WI.

U.S. News and World Report Interview. (2015). Invited interview to discuss Clemson University's success with digital media and learning in teacher preparation programs.

****Herro, D.** (May, 2015). *Game-based learning, Meet the (Media) Producers?* Invited **keynote** speaker at Playful Learning Summit, Ohio University.

Herro, D. (June, 2014). *Meaningful play in classrooms.* Invited presentation to Florida Consortium for Independent Schools. Tampa Bay, Florida, June 22, 2014.

Herro, D. (June, 2014). *Leading district-wide change with digital media and learning initiatives.* Invited panel presentation at Games+Learning+Society (GLS) Conference, Madison, WI. June 10, 2014.

Herro, D. & Jurkowski, O. EdChat (February, 2014). Invited presenter for national EdChat hosted by Education Week. Link available at http://blogs.edweek.org/edweek/DigitalEducation/2014/02/upcoming_online_chat_helping_t.html

Herro, D., (January, 2014). EdWeek Interview. *Teacher colleges shift to digital age*. Interviewed by Robin Flanigan. Available at: <http://www.edweek.org/ew/articles/2014/01/29/19el-teachers.h33.html>

Herro, D. (November, 2013). *Moving forward with games in schools*. Invited speaker International Society for Technology in Education (ISTE) SIGTE webinar.

****Herro, D.** (November, 2013). *Connected learning: Games in K-20*. Invited **keynote** speaker at Playful Learning Summit, University of Wisconsin – Whitewater, November 15-16, 2013.

Herro, D. & Stinnett P. (November, 2013). Invited workshop, *Integrating MIT App Inventor in schools*. Playful Learning Summit, University of Wisconsin-Whitewater to be held on November 15-16, 2013.

Herro, D., Leonard-Witte, S., & Myhre, H. (November, 2013). Invited Panel Presentation, *Leading change with technology in K-20 environments*. Playful Learning Summit, University of Wisconsin-Whitewater. November 15-16, 2013.

****Herro, D.** (June, 2013). *Connected learning: Gaming the system*. Invited **keynote** speaker for Educators Symposium, Games+Learning+Society (GLS) Conference. Delivered June 11, 2013. Madison, WI.

King, E., (organizer), Arena, D., Blakesley, C., Boyer, M., Chen, M., DeVane, B., Dikkers, S., Duncan, S., Durga, S., Fields, **D.**, **Herro, D.**, Johnson, B., Lammers, J., Magnifico, A., Martin, C.Simkins, D., & Wolfenstein, M. (June, 2013). Coffee, conversation, and your future as a games and learning scholar. Panel presentation at Games+Learning+Society 9.0, Madison, WI.

Herro, D. & Boyer, D.M. (February, 2013). Invited presentation to Visual/Human Centered Computing Seminar, Clemson University School of Computing. *Games and Learning: Research, Practice, and the Future*.

Herro, D. (September, 2012). *Preparing students for a 21st century global workforce*. LEAD IT Magazine. Vol. 1. www.leadit.com. Paragon Development Systems.

Herro, D. (2012). *Innovation in K-12 Schooling*. Paragon Development Systems (PDS) 2012 Technology Conference, Milwaukee, WI. Invited session presenter. September 19-20.

Herro, D. (2012). *Teaching and learning with Google apps: From implementation to authentic in-school practice*. Invited **keynote** presenter. Google App Summit, Wisconsin Lutheran College, Milwaukee, WI. June 8-13.

Herro, D. & Stinnett, P. (2012). *Touring with technology: Project-based learning with Google Earth to engage middle school students*. Invited co-presenter. Google App Summit, Wisconsin Lutheran College, Milwaukee, WI. June 8-13.

Herro, D. (2011). *Technology implementation in schools*. Invited panelist and workshop presentation for education symposium. Games+Learning+Society Conference (GLS), Madison, WI. June 14, 2011.

Herro, D., Martin C., McKenzie, J. (2010). *Technology implementation in schools*. Invited panel discussion at Games + Learning+Society Conference, (GLS), Madison, WI. June 12, 2010.

Herro, D. (2011). *Designing online and blended courses to customize learning: A blueprint*. Invited online presentation. Conference CO11 February 4-6, 2011.

****Herro, D. & Speirs, F.** (October, 2010). *iPad vs. Tablet PC Smackdown*. Selected for **keynote** speaker and pedagogical debate. Workshop on the Advantages of Pen-based Technology on Education. Virginia Tech, Blacksburg, Virginia. October 25-26, 2010. (WIPTE)

Herro, D. (2010). *Leveraging research, trends, and collaboration to build sustainable new media environments in schools*. Invited keynote presenter. The Capital Region Society for Technology in Education (CRSTE). Global Symposium October 16–24, 2010.

****Herro, D.** (2010). *Review and update of Web 2.0 literacy & secondary teacher education*. Invited **keynote** speaker. The Capital Region Society for Technology in Education (CRSTE). Online conference February 21 – March 5, 2010.

Herro D. (2010). *Web 2.0 technologies: Implications for education*. Invited presentation to Western Wisconsin Educator's Conference, LaCrosse, WI, February 19.

Regional and Local Conference Presentations

Herro, D., (May, 2022). *Pathways for their Futures: Engaging Rural Elementary students in Authentic Data Science Practices*. Presentation at Clemson Research Symposium. Watt Center, Clemson University.

Herro, D., Hirsch, S., & Arastoopour-Irgens, G. (May, 2021). *Computational Thinking, STEM Pop-Ups for All: A research practice partnership for agile learning in elementary schools*. Presentation at Clemson Research Symposium. Watt Center, Clemson.

Herro D. (May, 2019). *Plugging Humans into the Digital World: STEAM Education for K-12 Students*. Presentation at Clemson Research Symposium. Watt Center, Clemson University.

Herro, D. & Quigley, C.F., (September, 2017). *Implementing STEAM Learning in K-12 Classroom: Understanding Challenges and Benefits*. Joint Personnel/Instructional Leaders' Fall Conference. South Carolina's Association of School Leaders. Greenville, SC.

Herro, D. & Dikkers, S. (May, 2015). *Bring game-play and media production to classrooms*. Presentation to Clemson University's Playful Learning Summit. Roper Mountain Science Center. Greenville, SC, May 16, 2015.

Boyer, D., & Herro, D., (September, 2013). *Shifting culture: Moving from instructional technology to digital media & learning*. Presentation at South Carolina Association of Teacher Educators (SCATE). Limestone College, Gaffney, SC, September 27-28, 2013.

Herro, D., Boyer, D.M. & Lin., L. (February, 2013). *Play spaces in a school of education: A participatory approach*. US Coalition on Play, Conference on the Value of Play: Taking Action. Clemson University, February 17-19, 2013.

Facilitator/Guest Lecturer/Service

Invited guest speaker REAL (Researchers, Educator and Leaders) Meal, College of Education Research (March, 2023). *Artificial Intelligence and Education*.

Invited guest lecture to the Rhetoric, Composition and Instructional Design Program (RCID) guest lecturer series (March, 2022). *Enabling Equitable Participation for Youth: Connecting Interest-based Learning and STEAM Education*. Clemson University.

Invited guest presenter to the National Dropout Prevention Center (November, 2015). *Capacity Building: STEM to STEAM in South Carolina*. Clemson University.

Invited Guest Speaker (November 2015). Learning Sciences Seminar I. *A Research and Teaching Trajectory in the Learning Sciences*. Invited by Dr. Matthew Boyer, Clemson University.

Invited Guest Lecturer (October, 2013). *Digital Media and Games in the Classroom*. University of Wisconsin, Madison. Madison, WI. Invited by Drs. Richard Halverson and Elizabeth King.

Invited Guest Lecturer – (April, 2013). *Digital Media and Learning in K-12 Classrooms: Examples from the Field*. Invited by Dr. Elizabeth King, University of Wisconsin-Whitewater, Whitewater, WI

Invited Guest Lecturer (2011-2014), *Pre-service Teachers and Emergent Technologies Preparing For the Future of Teaching* Tennessee Technological University, invited by Dr. Carl Owens, Tennessee Technological College, Cookeville, TN

Invited Presenter, *Games and Learning: Transformative Learning in School (March, 2012)* Wisconsin Business Education Association Conference (WBEA) Waukesha, WI.

Invited Presenter, *Social Media: Definitions, Facts & Implications* (January, 2011) Human Resources Roundtable Discussion Oconomowoc Business Association Oconomowoc, WI.

Invited Presenter, *Why Digital Literacy Matters: Infusing Relevant Technologies in Literacy Programs (December, 2010)*. Waukesha County Reading Council Waukesha, WI.

Invited Guest Lecturer, *Digital Literacy Practices in Elementary Schools (November, 2010, April, 2011)* University of Wisconsin, Madison (C&I 500). Madison, WI

Invited Presenter, *Preparing Students for 21st Century Learning with Web 2.0 Technologies (March, 2010)* Wisconsin Business Education Association Conference (WBEA) Waukesha, WI.

Consultant, Pewaukee Area School District. *Facilitating Digital Literacy in K-12 Classrooms (2009)*. Workshop for Administrators. Pewaukee, WI.

GRANTS

External – Funded – research projects of \$7.5 million+

Stem Teacher Learning Progressions (CU-STLP). Principal Investigator Jeff Marshall, **Co-PI/Senior Personnel:** Rapa L., Cook M., Martin C., Petersen, G., McNeese N., **Herro, D.**, Pelt

A., D'Andrea L., & Klar, H.. Sponsor: U.S. Department of Education (2020-2023). **Funded. \$3,068,160.** 4-year grant to develop artificial intelligence/expert systems for microcredentials and STEM-related teacher professional learning courses. *Additional 2-year extension to fund new pathways for project in review (pending, 2023).*

CT-STEM Pop-Ups4All: An RPP for Agile Learning. NSF CS for All. PI-Herro, D. with Co-PIs Hirsch, S., Arastoopour Irgens, G., and Madison, M. **Funded. \$953,126.** 3-year grant to co-create and research data science curriculum in rural schools in South Carolina. (2020 – 2023; National Science Foundation).

Innovating Teaching with STEAM Education. Social Science Research Initiative Fund. With PI Quigley C., **Co-PI Herro, D.** University of Pittsburgh's Office of the Senior Vice Chancellor for Research. **\$46,368** (2019 – 2020), **Funded.** 1-year grant for data collection, analysis, and publication/dissemination of STEAM research

STEAM Studio Model for Innovation: Building Robust Learning Ecologies and Pathways in Computer Science. South Fayette Township School District, PA Smart Grant with PI Owens, E., **Co-PI's** Burke, Q., Quigley, C., and **Herro, D.** **Funded** two-year grant awarded to assess middle school students' collaborative learning using computational thinking while problem solving. **\$499,613** (2019 – 2021).

NRT: Technology-Human Integrated Knowledge Education and Research (THINKER). PI Lane Mears, **Senior Personnel/Co-PI Herro, D.** with Apon, Switzer, Stanley, Summers, Frady, & McNeese. **Funded** 5-year grant awarded to study the effective training of fifty M.S. and Ph.D. students, including twenty-two funded trainees, from electrical engineering, industrial engineering, computer science, manufacturing, systems integration, psychology, and sociology.

* My role: research design and qualitative methodologist; developing assessments to measure and investigate computer-supported collaboration theorized through the learning sciences. **\$2,993,421** (2018 – 2023)

Developing an assessment tool to measure collaboration in K-12 students. MacArthur **funded** 12-month grant for collaborative work with CRESST and Educational Testing Service (ETS). **PI – Herro, D.**, with Co-PI's Quigley, C.F., DeLaCruz, G., Andrews, J. **\$50,000** (2015 - 2016)

Teacher Expert Professional Development Grant - Greenville County Schools STEAM Initiative. Bosch Community Fund Grant, 2-year grant for PD **funded. Herro, Co-PI** with Co-PI Cassie Quigley. **\$60,000.** (2014 – 2016).

Grants in Review (pending)

Data Science V-Pathways. A Virtual Professional Development RPP for Elementary School Teachers Designing Culturally Responsive Data Science Education for Youth. National Science Foundation, Principal Investigator, **Herro, D.** with Co-PI Golnaz Arastoopour Irgens & Matthew

Madison. 3-year grant to develop virtual professional development and data science units for elementary school classrooms \$938,132 (pending, 2023).

Internal – Funded (\$278,774 in total)

Associate Dean of Research (ADR) Grant (**funded**) \$4,000 (2022) – Instructional Designer and virtual module build-out to position research team (PI-Herro) for NSF grant.

Clemson University Research Fellow and Post-doctoral Research Support Grant (**funded**) **\$170,591** (2021) – **Herro Co-PI** with Laine Mears, to support/funding and mentoring post-doctoral researcher on current grant - *NRT: Technology-Human Integrated Knowledge Education and Research (THINKER)*.

Associate Dean of Research (ADR) Grant (**funded**) – *Pilot study* – **\$7,800** (2020)
Leveraging Artificial Intelligence for Benchmark Assessments to Improve Literacy in Elementary-aged Students. Pilot study, course buy-out and incentives.

Associate Dean of Research (ADR) Grant (**funded**) – *Pilot study* – **\$19,594** (2019)
Pilot study, travel and course buy-out awarded to complete data collection using collaborative rubric in makerspaces.

University Research Grants Committee (**funded**) – *Completion Grant* - **\$2,650** (2017)
Grant awarded to validate rubric developed to measure student collaborative problem solving in STEAM units.

IT Student Advisory Board (ITSAB) Grant (**funded**) February 2013
Student Spaces for Digital Media, Games and Play on Campus
Grant for strategic investments in technology across Clemson University benefitting students. co-PI, with D. Matthew Boyer
Grant awarded for **\$49,000** supporting technology and games

Internal grant funded by Schools of Computing and Education (**funded**) January 2013
Perceptions of Computational Thinking
Students Designing with MIT App Inventor
Grant for **\$5,500** to pilot study of student perceptions and practices designing apps in at-risk 8th grade classrooms

Health, Education and Human Development (HEHD) Grant (**funded**) April 2013
Developing Computational Thinking through Application Programming
Grant for **\$19,639** to scale pilot study, focusing on computational thinking practices in rural and suburban classrooms using MIT App Inventor. Co-PI with D. Matthew Boyer and Christina Gardner

Grants Submitted (unfunded)

Greene, A., **Herro, D.**, Babu, S., & Qian, M..
AISL: GastroChef - *Advancing Informal STEM Learning of Basic Microbiology and Foodborne Disease Prevention Principles through Intergenerational Gameplay* (declined 2017-18).
\$2,956,833

Herro, D., Quigley, C.F., Qian, M., Atamturktur, S., Burke, Q., & Frady, K. *ISTEPS: Strategies: Innovative Strategies for Equitable Participation in STEAM* (declined). \$809,000 submitted to investigate collaborative problem solving and STEAM learning in elementary classrooms.

Herro, D., & Quigley, C.F., Frady, K., Alexander, A. (2016) *STEAM Teacher Innovators*. Duke Energy Foundation. (declined) \$72,450.00

Herro D., Gee, E. & Shute, V. (2015) *Stealth ACT: A Game-based Assessment to Measure Computational Thinking*. National Science Foundation. (declined) \$529,000.

Quigley, C.F., **Herro, D.,** Cook, M., Casabianca, L., McNealy, T. (2015) *STEAM Teaching: Transdisciplinary Teaching and Learning Practices for Middle School Teachers*. Improving Teaching Quality, South Carolina Commission on Higher Education. November, 2015. (declined) \$124,866.

Burras, C., Quigley, C.F. & **Herro, D.,** (2015) *Full STEAM Ahead: Creating Transdisciplinary Middle School Teacher Leaders*. Greenville Women Giving. (declined) \$95,000.

Quigley, C. & **Herro, D.** *Improving Teacher Quality. Mapping our Future: Developing High Quality Middle/High School Instructors*. (submitted 2014). Grant submitted for \$149,000. Co-PI with Dr. Quigley and Andrew Shedlock, College of Charleston. (declined)

National Science Foundation Discovery Research K-12 (DRK-12) (2015)
EXP: CTGame - A Game-based Assessment to Measure Computational Thinking. Exploratory grant submitted for \$450,000. PI with Co-PI's across 4 institutions: Elisabeth Gee, Christina McCune-Gardner, Alina von Davier and Matthew Boyer. (declined)

National Science Foundation iTest 2015
ITEST: Strategies: Engaging Women and Minority Athletes in Information Technology. Grant submitted for \$1,174,000. (declined). Co-PI with Shandra Daily (PI), Alison Leonard, Drs. Gramopadhye and Madathil (Clemson University).

National Science Foundation Cyber-Learning Grant (declined) March, 2014
Learning with CyberPLAYce – A Cyber-physical Learning Environment Promoting Computational and Personal Expression for Elementary Students. Cyberlearning exploratory grant submitted for \$545,000. Co-PI with Christina Gardner (PI) and Keith Evan Green.

National Science Foundation DRK12 (declined) 2013 – 2017
Sustained Transformation of Inquiry-Based Learning and Teaching in Science (STILTS): An Effective, Economical Middle School Scale-Up Program Discovery Research K-12, Co-PI, with Jeff Marshall, PI, Co-PI's Roy Pargas, Janie Lindle. Grant submitted for \$3.7 million to transform middle school science by increasing the quality and quantity of content-embedded inquiry instructions. Four-year scale up proposal, impacting 50,000 students

Other grants – funded

Oconomowoc Public Education Foundation (\$ 7,008) May 2012
Students Designing Mobile Apps and Educational Games

Grant awarded for purchase of equipment to design Smartboard games and mobile apps for high school students

Schiefelbein Foundation (\$5,800) April 2011

Fostering Critical Thinking, Collaboration, and Creativity through Virtual Game Play and Design – High School Students

Matching grant awarded for purchase of game to teach American History Course; mobile devices for student App development

Oconomowoc Public Education Foundation (\$4,454) April 2010

21st Century Video Documentary Making: Project-based Learning, Creative Expression and Media Critique

Grant awarded for purchase of flip-cameras and peripherals; student video projects integrated with high school curricula.

Oconomowoc Public Education Foundation (\$6,000) April 2010

Document Cameras Providing Interactivity in K-12 Classrooms

Grant awarded for purchase of document cameras for 8 school sites; supporting coursework and implementation plan included.

ING Unsung Heroes Grant for Innovative Class projects (\$2,000) June 2009

Global Connections Broadcast Project – Fourth Graders

Grant awarded for purchase of class set of iPods; wrote supporting curricula for iPod integration in coursework.

Consultant

Oconomowoc Area School District, 2012-2014: consulted and co-wrote and implemented game-based learning curricula.

Sun Prairie School District, 2014-2015; consulted on writing and subsequently passing Educational Technology Plan for district as presented to Board of Education.

Berkeley County School District, 2015-2021; consulting to implement STEAM teaching in K-8 schools.

Sun Prairie School District, 2018-2021; working with administrators and teachers to develop and implement STEAM curricula in a K-5 school.

Sun Prairie School District, 2020-present; co-designing computer/technical education curriculum working with 6-7-8 grade teachers, instructional coaches and administrators. Courses include *Innovation Lab: Design Thinking and Making; Game Design and Development; Social Media Marketing; Data Science and Visualization; Digital Design and Production; AI+Ethics.*

Sun Prairie School District, 2022-present; STEAM Education curriculum development and professional learning for K-5 elementary school.

TEACHING & ADVISING

Clemson University – Teaching/Courses

EDF 9010—Learning Sciences Seminar I

EDF 9050 ---A Critical Look at Social Media, Games, and Emerging Technologies

EDF 9110 ---Theoretical Foundations of Games for Learning
ED 8380---STEAM Instructional Content/STEAM Learning Context
ED 8710---STEAM Transdisciplinary Teaching
ED 8730---STEAM Enacted and Evaluated
ED 7720---STEAM Assessment, summer
ED 8330---Digital Media and Learning
EDF 4250 ---Instructional Technology Strategies
EDF 3150 ---Technology Skills for Learning
EDF 4800 ---Foundations of Digital Media and Learning
Microcredential – Fostering STEAM Leadership (1-credit graduate course)

Course Development and Recognitions – Developed 4 course sequence for STEAM Education Certificate, subsequently recognized by SC Department of Education as first STEAM Endorsement in the nation. STEAM Courses are 4 of 12 courses that comprise the #1 rated online Master of Education Program in the United States (U.S. News and World Reports).
<https://www.usnews.com/education/online-education/education/rankings>

Doctoral Student Advising

CLEaR Lab (Connected Learning in Education and Research) – Founder and Director of bi-weekly doctoral lab aimed at forming research collaborations, creating proposals, examining methodological approaches, sharing scholarly work, and discussing pressing issues in the Learning Sciences. Co-Director: Dr. Shanna Hirsch. The lab also hosts a yearly research/poster session.

Graduate Committees

Committee Chair & PhD Advisor

Lori Jacques; successfully defended dissertation/graduated December 2017 – Learning Sciences
Juan Li; successfully defended dissertation/graduated May 2019 – Learning Sciences
Allyson Wilcox; successfully defended dissertation/graduated May 2020 – Learning Sciences
Abby Baker; successfully defended dissertation/graduated August 2021 – Learning Sciences
April Pelt (admitted 2018, anticipated graduation 2024) – Learning Sciences
Anne Grant (admitted 2017, anticipated graduation 2024) – Learning Sciences
Keri Crist-Wagner (admitted 2019, anticipated graduation 2024) – Learning Sciences
Abimbade (admitted 2019, anticipated graduation 2023) – Learning Sciences
Jeremiah Akhigbe – (admitted 2023) – Learning Sciences
Rosa Pillcurima – (admitted 2023) – Learning Sciences

Committee Member

Emily Howell (defended dissertation/graduated, 2015) – Literacy, Language, and Culture
Arash Soleimani (defended dissertation/graduated, 2015) – Architecture/Built Environment
Sango Pang (defended dissertation/graduated, 2016) – Literacy, Language, and Culture
Andrea Johnson (defended dissertation/graduated, 2015) – Computer Science
Karen Clark (defended dissertation/graduated, 2020) – Learning Sciences
Elizabeth Haun (defended dissertation/graduated, 2016) – Educational Leadership
Joshua Herron (defended dissertation/graduated, 2017) – RCID (Rhetoric, Communication, Instructional Design)
Dan Frank (defended dissertation/graduated, 2018) – RCID (Rhetoric, Communication)
Chris Stuart (defended dissertation/graduated, 2020) – RCID (Rhetoric, Communication)
Laura Eisner (defended dissertation/graduated, 2021) – Curriculum & Instruction

Jacob Richter (defended dissertation/graduated, 2022) – RCID
Randi Joy Sims (MA student; defended thesis/graduated May 2022) – Biological Sciences
Daniel Stockwell (admitted 2019; anticipated defense May 2023) – Literacy, Language
and Culture
Cinamon Bailey (admitted 2019; anticipated defense 2024) – Learning Sciences
Ibrahim Adisa (admitted 2020; anticipated defense, 2024) – Learning Sciences
Khushbu Singh (admitted 2020, anticipated defense 2023) – Curriculum & Instruction
Logan Wright (admitted 2021, anticipated defense 2025) – Special Education

SERVICE

Service to the Profession/Field of Scholarship

2016- present -- National Science Foundation (NSF). Invited/serve on computer science and STEM-related grant review panels.

2023-2028 Advisory Board and Consultant – Dr. Golnaz Arastoopour Irgens, PI, Funded NSF Career Grant (2023), Artificial Intelligence, Machine Learning and Computational Thinking for K-8 Students.

2022-23 NAS-National Science Foundation Funded Working Group Community member – invited to serve with national scholars committed to proposing and developing data science assessments for K-12 students. 2022-present. (Hosted by the University of Chicago).

2020 – present RPPfor CS/CSforALL Community member – Partnership with national scholars to improve computer science education by connecting research to practice; invited member and active participant in monthly meetings

2020 – Reviewer, Awards Committee for Early Career Scholar -- Media, Culture and Learning SIG, American Education Research Association

2019, 2020, 2022 – External Reviewer for tenure track faculty dossiers at R1 institutions in Utah, Colorado and New York.

2017 - Editor, Mobile Learning in the Age of Participation; Information Age Publishing
Co-Editor with Sousan Arafeh, Chris Holden and Richard Ling.

2015-17 -- Chair of Media, Culture and Learning SIG American Education Research Association, elected. Co-organized conference, facilitated bi-monthly communications, ran yearly business meetings, developed and gained approval for new research awards for SIG, hosted elections.

2014-16 -- Playful Learning Fellow – Invited national advisory position focused on moving game-based learning in educational contexts, selected.

International/National Reviewer - Conferences

Society for Information Technology and Teacher Education
Submissions on digital media and learning

2012 – present

American Education Research Association (AERA) Submissions in Media, Culture and Learning SIG	2013 - present
National Reviewer - Conferences Games, Learning, and Society Conference Submissions on Games and K-12 Education Madison, Wisconsin	2008 - 2016
Invited Guest Editor <i>Journal of Applied Research in Higher Education</i> , Special Edition	2018
Invited Guest Editor <i>On the Horizon</i> , Special Edition on Games in Higher Education/Double Issue	2015
Editorial Board <i>Journal of Digital Learning and Teacher Education</i> (JDLTE) Invited Reviewer and Board Member	2014 – present
<i>Journal of Technology and Teacher Education</i> (JTATE) Invited Reviewer and Board Member	2015 – present
Literary Research Association Yearbook Editor for submissions on digital media and literacy Clemson University, Clemson, South Carolina	2012 - 2014
<u>Ad Hoc Reviewer</u> Research in Science and Technological Education Journal of Educational Research (JER) Journal of Science Education and Technology International Journal of STEM Education Journal of Applied Research in Higher Education (JARHE) Mobile Media and Communication Action in Teacher Education Canadian Journal of Learning and Technology Journal of the Learning Sciences (JLS) Teaching and Teacher Education (TATE)	2021 - present 2020 - present 2020 – present 2018 – present 2017- present 2017 – present 2017 - present 2017 - present 2016 - present 2015 - present
<u>Service to the University</u> 2022-24 Chair for Department – Tenure, Promotion and Retention Committee, elected 2023 – Co-Chair, University Research Symposium, volunteered 2023 – TigerSphere Planning Committee, AI+Ethics, selected - Office of Research Development 2021 - CoE Representative for Cluster Hire in AI/Machine Learning, appointed by Dean 2021-22 - Tenure, Promotion and Retention Committee – elected 2020-23 - Vice Provost of Research (VPR) Advisory Committee – elected – 3-year term 2020-23 – Academic Integrity Committee, elected – 3-year term 2022 – Co-Chair, Clemson University Research Symposium, volunteered 2018-20 -- Academic Integrity Committee, elected – 2-year term 2017-18 – Faculty Senate Alternate, elected 2017 – Fulbright Review Committee for Clemson University, selected	

2017 – Merit Pay Committee, invited by Provost
2015 - Library Advisory Board – elected

Service to the College of Education

2023 – Graduate Research Symposium faculty advisor
2022-23 – Faculty Senate Alternate (CoE), elected
2020-21- Low-Residency PhD Task Force, appointed by ADR
2020 – Co-Working/Faculty Committee – Advisory Committee for Shared Office Space
2019-20 - Chair – Learning Sciences Faculty Search, appointed by Dean
2019 – Mentor, newly hired junior faculty, volunteered
2018 – Search Committee, Learning Sciences Faculty Search
2018 – EHD Department Merit Pay Committee Guidelines, volunteered
2017-18 – Learning Science Program Coordinator, elected
2017 – Hosted UW-Madison scholar Dr. Richard Halverson for faculty and graduate students
2016-present – Doctoral Advisory Committee for Learning Sciences, volunteered
2016-19 – CoE Community and Diversity Committee, EHD representative, elected
2016-17 – Zone mentor/faculty mentor for junior faculty, invited by Dean
2016 – Hosted Arizona State scholar, Dr. Jim Gee for faculty and graduate students (Watt Center)
2015-16 -- Learning Sciences Program Coordinator, volunteered
2016 – Led Development of Learning Sciences Handbook, volunteered
2015 – Co-developed Learning Sciences Doctoral Program
2015-18 Co-Director, The STEAM Collective – Appointed by CoE Dean
2015 - Tenure Promotion & Retention Guidelines Committee – volunteered
2014 – Clemson STEAM Initiative Steering Committee, invited
2013—present, Co-Director, Digital Media and Learning Labs

Service to the local community

2021-22 – STEAM Advisory Council, Greenville County School District
2020 – Virtual module creation and STEAM professional development for K-8 teachers in SC
2018 – Game-based learning workshops; School District Pickens County
2017-19 – Pokémon Fan Club Advisor, Clemson University Student Community
2016 – Professional Development, STEAM and Technology Education, Green Charter School
2016 – Co-wrote game design curriculum for local middle school in Greenville County
2015 - Faculty-in-Residence, Fisher Middle School -- 1-year on-site office; worked with teachers and administrators to develop STEAM and game-design curricula, provided professional development, met weekly with teachers and site administrator.

Conference Organizer

Playful Learning Summits, South Carolina – 1 or 2-day game-based learning workshops for educators focused on integrating game play in learning environments (national funding to host workshops and invite game-based learning scholars, invited keynote and workshop presenters).
2014 – 2-day summit at Clemson University – hosted/funded 7 scholars to run workshops
2015 – 1-day summit at Roper Mountain Science Center – hosted/funded 4 scholars, several Clemson faculty and 6 graduate students to run workshops.

Professional Affiliations

NAPLeS (Network of Academic Programs in the Learning Sciences)	2020 - present
Literacy Research Association	2014 - 2016
Society for Information, Technology & Teacher Education	2009 – present
International Reading Association	2009 – 2013

Project New Media Literacies	2009 – 2013
American Education Research Association	2008 – present
Media, Culture and Learning SIG	2009 – present
Games +Learning + Society	2007 – 2016
Wisconsin Educational Media and Technology Association	1995 – 2010
Oconomowoc Education Association	1993 – 2008
National Education Association	1991 – 2008
Wisconsin Association of Talented and Gifted	1996 – 2007

Graduate Research Experience and Relevant Work

<u>Research Assistant</u>	2008 - 2009
Principal Investigator: Dr. Constance Steinkuehler	
After-school Boys Group; Massively Multiplayer Online Games	
Research adolescent boys' digital literacy practices	
<ul style="list-style-type: none"> • Collaborative research on videogames, cognition, and literacy • Data collection, game play and observation 	

<u>Research Assistant</u>	2007 - 2008
Principal Investigator: Dr. Kurt Squire	
Augmented Reality Games	
Research place-based learning with hand-held games	
<ul style="list-style-type: none"> • Fieldwork, technical support, curriculum revisions • Facilitated game-play with Milwaukee Public School students Urban Ecology Center, Milwaukee, WI. 	

Administrative/Instructional Leadership and Program Planning

Virtual School Program Designer	2010 – 2012
Oconomowoc Area Schools	
Oconomowoc, WI.	
Instructional Technology Administrator	2007 – 2012
Oconomowoc Area Schools	
Oconomowoc, WI.	

Developed and facilitated extensive professional development offerings:

- Connected Learning: Social Media, Game Play and Design in Classrooms
- AI+Ethics for Middle School Students
- Digital Design and Production for Middle School Students
- Innovation Lab+Design Thinking for Middle School Students
- Computational Thinking, Data Science and Curricular Unit Development
- STEAM Instruction and Curricular Unit Development
- STEAM, Design Thinking and Making
- STEAM: Transdisciplinary Teaching and Learning
- MIT App Inventor Workshop for Educators
- Social Media Research, Trends and Implications for Educators
- Blackboard Basics Training
- Blogging Workshop for Teachers and Administrators

- Content Management System, FinalSite, Training
- Intel Teach to the Future, 40-hour professional development
- Integrating Hyperstudio into Existing Curriculum
- Effectively Using MathKeys Software
- Using Research and the Internet to Integrate Technology
- Integrating MicroWorlds, Integrating Linkway Live!, Learn LogoWriter
- Using the ACOT Model to Integrate Technology
- Integrating Technology into the Existing Curriculum
- Differentiating Instruction for Highly Capable Learners