


**Li Cheng, Ph.D.**  
Research Scientist  
Computer Science Department  
Worcester Polytechnic Institute, Worcester, MA, USA  
[Email](#) | [Website](#) | [Google Scholar](#) | [ORCID Record](#) 

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### EDUCATION

- 08/2019      **Ph.D., University of Florida, FL, U.S.**
- Major: Curriculum and Instruction with Educational Technology Emphasis
  - Minor: Research and Evaluation Methodology
  - Dissertation: *3D Printing Integration in K-12 Science Classrooms: The Relationship with Students' STEM Motivation, 21st Century Skills, and Interest in STEM Careers*
  - Chair: Dr. Albert D. Ritzhaupt; Co-Chair: Dr. Pavlo Antonenko
- 05/2013      **M.A.Ed., West Liberty University, WV, U.S.**
- Major: Education with Technology Integration Emphasis
- 07/2011      **MPA, Zhejiang Normal University, Zhejiang, China**
- Major: Public Administration
- 07/2010      **B.A., Jiangnan University, Hubei, China**
- Major: Public Administration

### ACADEMIC APPOINTMENTS

- 03/2022-Present      **Research Scientist**, Computer Science Department, Worcester Polytechnic Institute
- 08/2020-01/2022      **Research Assistant**, College of Education, University of Florida
- 09/2019-08/2020      **Post-Doctoral Associate**, College of Education, University of Florida
- 05/2016-05/2019      **Research Assistant**, College of Education, University of Florida
- 08/2015-05/2017      **Graduate Instructor**, College of Education, University of Florida
- 08/2013-05/2014      **Adjunct Professor**, Foreign Languages Department, Marietta College
- 06/2011-08/2011      **English Teacher**, Yiwu Cambridge English School, Zhejiang, China

### AWARDS AND HONORS

- 2019      **Graduate School Dissertation Award**, University of Florida, **\$6,000**
- 2018      **Distinguished Paper Award**, Florida Education and Research Association, **\$500**
- 2018      **UF COE Scholarship**, Elizabeth E. Larsen Memorial Fund, **\$3,000**
- 2018      **Best Paper Award**, American Education and Research Association
- 2017      **Best Poster Award**, Florida Educational Research Association
- 2015-2017      **Grinter Fellowship**, University of Florida Graduate School, **\$6,250**
- 2015-2019      **Outstanding Achievement** for maintaining a 4.0 GPA, University of Florida
- 2012-2013      **Culture Ambassador**, West Liberty University
- 2011-2013      **Black & Gold scholarship**, West Liberty University, **\$12,000**
- 2011-2012      **Active Participation & Contribution**, International Club at WLU
- 2011      **Excellence prize** in the calligraphy contest at Zhejiang Normal University
- 2010      **Admitted as a government-funded student** by Zhejiang Normal University
- 2010      **Outstanding Graduate** at Jiangnan University (Dean's list)
- 2006-2009      **First-class scholarship** at Jiangnan University

## GRANTS

<i>Date</i>	<i>Title</i>	<i>Role</i>	<i>Agency</i>	<i>Amount</i>	<i>Status</i>
April 2023- October 2023	Using Reinforcement Learning with Human in the Loop (RLHF) Feedback System to Make ChatBots	Co-PI	NSF VITAL Prize Challenge	\$20,000	Selected for Semi-Final Round
July 2022- December 2024	Building a Mathematical Problem-Solving Environment to Prepare K-5 Students for Success in STEM and Health Careers	Research Scientist	NIH SBIR (Subcontract)	\$174,983	Funded
November 2022- November 2023	Leveraging Artificial Intelligence to Analyze Students' Math Work Uploaded in a Digital Platform	Co-PI	Philanthropic Funding from Doug Jaffe and Laurence Holt	\$120,000	Funded
Submitted March 2023	Collaborative Research: FW-HTF-RM: Supporting the Future Work of Math Teachers with AI-Augmented Live Reports and Technologies (SMART)	Co-PI	NSF	\$400,000	Pending

## PUBLICATIONS

### Peer-Reviewed Journal Articles

20. **Cheng, L.**, Antonenko, P., & Ritzhaupt, A. D. (2023, Accepted for Publication). The impact of teachers' pedagogical beliefs, self-efficacy, and technology value beliefs on 3D printing integration in K-12 science classrooms. *Educational Technology Research and Development*.
19. **Cheng, L.**, Karthikeyan, K., Rehman, M. S., Ritzhaupt, A. D., Antonyan, K., Shidfar, P., Nichols, J., Lee, M., & Abramowitz, B. (2023). Designing, developing, and validating a measure of undergraduate students' conceptions of artificial intelligence in education. *Journal of Interactive Learning Research*, 34(2), 275-311. <https://www.learntechlib.org/primary/p/222246/>
18. Schmidt, M. M., Lee, M., Francois, M.-S., Lu, J., Huang, R., **Cheng, L.**, & Weng, Y. (2023). Learning Experience Design of Project PHoENIX: Addressing the Lack of Autistic Representation in Extended Reality Design and Development. *Journal of Formative Design in Learning*. <https://doi.org/10.1007/s41686-023-00077-5>
17. **Cheng, L.**, Hampton, J., & Kumar, S. (2022). Engaging students via synchronous peer feedback in a technology-enhanced learning environment. *Journal of Research on Technology in Education*. <https://doi.org/10.1080/15391523.2022.2142874>
16. **Cheng, L.**, Wang, X., & Ritzhaupt, A. D. (2022). The effects of computational thinking integration in STEM on students' learning performance in K-12 education: A meta-analysis. *Journal of Educational Computing Research*. <https://doi.org/10.1177/07356331221114183>
15. Schmidt, M., Lu, J., Luo, W., **Cheng, L.**, Lee, M., Huang, R., Weng, Y., Kichler, J. C., Corathers, S. D., Jacobsen, L. M., Albanese-O'Neill, A., Smith, L. Westen, S., Gutierrez-Colina, A. M., Heckaman, L. Wetter, S. E., Driscoll, K. A., & Modi, A. (2022). Learning experience design of an mHealth self-management intervention for adolescents with type 1 diabetes. *Educational Technology Research and Development*. <https://doi.org/10.1007/s11423-022-10160-6>
14. **Cheng, L.**, Pastore, R., & Ritzhaupt, A. D. (2021). Examining the accelerated playback hypothesis of time-compression in multimedia learning environments: a meta-analysis study. *Journal of Educational Computing Research*, 60(3), 579-598. <https://doi.org/10.1177/073563312111043535>

13. **Cheng, L.**, Antonenko, P., Ritzhaupt, A. D., MacFadden, B. J. (2021). Exploring the role of 3D printing and STEM integration levels in students' STEM career interest. *British Journal of Educational Technology*, 52(3), 1262-1278. <https://doi.org/10.1111/bjet.13077>
12. **Cheng, L.**, Antonenko, P., Ritzhaupt, A. D., Dawson, K., Miller, D, MacFadden, B. J., Grant, C., Sheppard, T. D., & Ziegler, M. (2020). Exploring the influence of teachers' beliefs and 3D printing integrated STEM instruction on students' STEM motivation. *Computers & Education*, 158, 103983. <https://doi.org/10.1016/j.compedu.2020.103983>
11. Schmidt, M., **Cheng, L.**, Raj., S., & Wade, S. (2020). Formative design and evaluation of a responsive eHealth/mHealth intervention for positive family adaptation following pediatric traumatic brain injury. *Journal of Formative Design in Learning*, 4, 88-106. <https://doi.org/10.1007/s41686-020-00049-z>
10. Wilson, M., Ritzhaupt, A. D., & **Cheng, L.** (2020). The impact of teacher education courses for technology integration on pre-service teacher knowledge: A meta-analysis study. *Computers & Education*, 156, 103941. <https://doi.org/10.1016/j.compedu.2020.103941>
9. Rosenblum, L. P., **Cheng, L.**, Zebehazy, K, T., Wall Emerson, R., & Beal, C. R. (2020). Teachers' descriptions of mathematics graphics for students with visual impairments: A preliminary investigation. *Journal of Visual Impairment & Blindness*, 114(3), 331-236. <https://doi.org/10.1177/0145482X20923442>
8. **Cheng, L.**, & Beal, C. R. (2020). Effects of student-generated drawing and imagination on science text reading in a computer-based learning environment. *Educational Technology Research and Development*, 68(1), 225-247. <https://doi.org/10.1007/s11423-019-09684-1>
7. Natercia, V., Antonenko, P. Soltis, P.S., Soltis, D.E., Folk, R.A., Guralnick, R.P., Oliverio, J.C., Difato, T.T., Xu, Z., **Cheng, L.** (2020). Informal multimedia biodiversity awareness event as a digital ecology for promoting culture of science. *Education and Information Technologies*, <https://doi.org/10.1007/s10639-020-10121-7>
6. **Cheng, L.**, Ritzhaupt, A. D., & Antonenko, P. (2019). Effects of the flipped classroom instructional strategy on students' learning outcomes: A meta-analysis. *Educational Technology Research and Development*, 67(4), 793–824. <https://doi.org/10.1007/s11423-018-9633-7>
5. Rosenblum, P., **Cheng, L.**, Beal, C. R. (2018). Teachers of students with visual impairments share experiences and advice for supporting students in understanding graphics. *Journal of Visual Impairment and Blindness*, 112(5), 475-487. <https://doi.org/10.1177/0145482X1811200505>
4. Wang, J., Dawson, K., Saunders, K., Ritzhaupt, A. D., Antonenko, P., Lombardino, L., Keil, A., Dogan, N., Luo, W., **Cheng, L.**, Davis, R. O. (2018). Investigating the effects of modality and multimedia on the learning performance of college students with dyslexia. *Journal of Special Education Technology*, 33(3), 182-193. <https://doi.org/10.1177/0162643418754530>
3. Luo, T., Sickel, J., & **Cheng, L.** (2017). Preservice teachers' participation and perceptions of Twitter live chats as Personal Learning Networks. *TechTrends*, 61(3), 226-235. <https://doi.org/10.1007/s11528-016-0137-1>
2. Luo, T., Dani, D., & **Cheng, L.** (2016). Viability of using Twitter to support peer instruction in teacher education. *International Journal of Social Media and Interactive Learning Environments*, 4(4), 287-304. <https://doi.org/10.1504/IJSMILE.2016.081280>
1. **Cheng, L.** (2014). The use of web-based self-directed learning for Mandarin study. *Excellence in Education Journal*, 3(1), 46-94. <https://eric.ed.gov/?id=EJ1210200>

### Book Chapters

3. Ritzhaupt, A. D., **Cheng, L.**, Luo, W., & Hohlfeld, T. (2020). The digital divide in formal educational settings: The past, present, and future relevance. In M. J. Bishop, J. Elen, E. Boling, & V. Svihla, (Eds.), *Handbook of Research on Educational and Communications Technology* (pp. 483 - 504). New York, NY: Springer, Cham. [https://doi.org/10.1007/978-3-030-36119-8\\_23](https://doi.org/10.1007/978-3-030-36119-8_23)

2. Antonenko, P., Dawson, K., **Cheng, L.**, & Wang, J. (2020). Using technology to address individual differences in learning. In M. J. Bishop, J. Elen, E. Boling, & V. Svihla, (Eds.), *Handbook of Research on Educational and Communications Technology* (pp. 99 - 114). New York, NY: Springer, Cham. [https://doi.org/10.1007/978-3-030-36119-8\\_6](https://doi.org/10.1007/978-3-030-36119-8_6)
1. **Cheng, L.**, Rushing, R., Xu, Z., & Dogan, N. (2017). Theoretical Foundations of Distance Education. In *Distance Education: A Guide for Theory and Practice*. Open Educational Resource. [https://www.aritzhaupt.com/distance\\_education/theoretical-frameworks/](https://www.aritzhaupt.com/distance_education/theoretical-frameworks/)

### Under Review

**Cheng, L.**, Prihar, E., Baral, S., Gurung, A., Botelho, A. T., Haim A., Heffernan, C., Patikorn, T., Sales, A., & Heffernan, N. T. (Under Review). *Authoring Tools for Crowdsourcing from Teachers to Enhance Intelligent Tutoring Systems*.

### In Preparation

**Cheng, L.** et al. (In Preparation). Facilitating students' mathematics learning with ChatBot in an online learning platform

**Cheng, L.** et al. (In Preparation). A meta-analysis examining the effects of STEM+CT interventions on students' computational thinking in K-12 education

## RESEARCH EXPERIENCES

03/2022-present, **Research Scientist**, Computer Science Department, Worcester Polytechnic Institute

- Lead the writing and development of grant proposals, securing advisory board support, and obtaining letters of support to increase funding for math education and artificial intelligence related projects
- Conduct experimental research studies using the E-TRIALS platform and write conference proposals and manuscripts to disseminate research findings related to research infrastructure, artificial intelligence, and math education
- Conduct user-centered research to inform the iterative technology design and development
- Clean and process large scale datasets to make them analyzable and conduct data analysis using advanced techniques
- Design, develop, implement, and manage programs to recruit and support researchers in using the E-TRIALS platform to conduct randomized controlled trials
- Onboard new researchers by conducting informational webinars and walk new users through the process
- Coordinate and advise external research teams as they set up projects within the E-TRIALS infrastructure in accordance to the tenets of Open Science and support them on selecting math content associated with common core standards, experiment design, and data analysis
- Fetch data from databases using DBEaver
- Develop data analysis toolkit for researchers to guide their data analysis
- Work with product team on usability and design new features that will excite more researchers to use the E-TRIALS platform
- Work with product team and content team in building out the E-TRIALS infrastructure
- Manage the communications and messaging between E-TRIALS and the national community of researchers, funders, and policy-makers

09/2019-01/2022, **Post-Doctoral Associate & Research Assistant**, Institute for Advanced Learning Technologies at the University of Florida

- Provide research support with the design, development, and evaluation of educational technologies
- Develop study protocol, usability test protocol, and survey instrument for project PHoENIX
- Literature and product reviews and data analyses
- Research dissemination, including presentations, manuscripts, etc.
- Mentor graduate students on research studies
- Curate a research repository for online learning research for Florida Distance Learning Research Consortium
- Design, develop, and coordinate webinars regarding online learning research
- Coordinate Florida Distance Learning Research Consortium with multiple stakeholders including administrators, faculty, guest speakers, and diverse webinar participants
- Provide research consultation to State University System of Florida Board of Governors

08/2018-05/2019, **Research Assistant**, *iDigFossils: Engaging K-12 Students in Integrated STEM via 3D Digitization, Printing and Exploration of Fossil*, National Science Foundation grant, Award # 1510410, \$1,194,054.

- Data collection: class observation, teacher interviews, survey design
- Large datasets processing: cleaning, matching, and organization
- Data analysis: multilevel modeling, structural equation modeling, cluster analysis etc.
- Write conference proposals and manuscripts for journal publications

08/2016-08/2018, **Research Assistant**, *An intervention to provide youth with visual impairments with strategies to access graphical information in math word problems*, U.S. Department of Education IES grant, Award # R324A160154, \$1,397,638.

- Design and develop math curriculum and lesson units for the app
- Design and develop math word problems with graphical information
- Assist the iterative design and development of the app
- Edit videos for teacher professional development
- Data collection: develop surveys, create surveys with Qualtrics, manage survey data
- Data analysis: transcribe interview data, thematic analysis, survey analysis
- Write manuscripts and address reviewer comments for journal publication

01/2017-05/2017, **Research Assistant**, *Project LENS: Leveraging Expertise in Neurotechnologies to Study Individual Differences in Multimedia Learning*, National Science Foundation grant, Award # 1540888, \$817,500.

- Collect data using Eye-Tracking technology, EEG, fNIR, and NIH toolbox
- Revise experiment protocol

05/2016-08/2016, **Research Assistant**, *Converging Behavioral and Psychophysiological Measures: Evaluating the Effectiveness of Multimedia Learning Conditions with Dyslexic Learners*, UF Research Opportunity Fund, \$94,458.

- Build intervention with Experiment Builder
- Collect data using Eye-Tracking technology, EEG, and NIH toolbox across universities
- Curate and manage NIH toolbox cognition data
- Search, compile, code, and analyze literature

## TEACHING EXPERIENCES

*University of Florida, FL, USA*

Spring 2021

**Instructor, Distance Teaching and Learning**

- Graduate-level online course
- Design and teach this course to online Master's and Ed.D. students

- Fall 2020      **Instructor, Foundations of Educational Technology**
- Graduate-level online course
  - Teach this course to online Master's and Ph.D. students
- Summer 2020      **Co-Instructor, Managing Educational Projects**
- Graduate-level online course
  - Design instructional materials and assessments
  - Facilitate discussion, grade assignments and projects, and provide feedback
- Spring 2020      **Co-Instructor, Human-Computer Interaction and the Learner**
- Graduate-level face-to-face and online course
  - Design and develop instructional materials and engaging activities
  - Facilitate group activities and grade assignments
- Spring 2017      **Co-Instructor, Advanced Instructional Design**
- Graduate-level online course
  - Facilitate discussion, grade assignments, and provide feedback
- Fall 2016      **Lead Instructor, Introduction to Educational Technology**
- Undergraduate-level blended course
  - Design, develop, and teach two class sections
  - Coordinate this course and mentor three new instructors
- Spring 2016      **Instructor, Introduction to Educational Technology**
- Fall 2015
- Undergraduate-level blended course
  - Design, develop, and teach two class sections

***Marietta College, OH, USA***

- Spring 2014      **Adjunct Professor of Chinese**
- Fall 2013
- Design and develop three Chinese courses in the LMS Moodle
  - Teach beginner, intermediate, and advanced level Chinese classes
  - Design, develop, and integrate technology (animations etc.)
  - Direct the Language Lab and Conversational Table
  - Recruit Asian Studies students and organize cultural events
  - Connect Chinese and American students and promote American students' interests in learning Chinese language and culture
  - Facilitate and collaborate with Conversation Tutors Program, Global Connect Program, Global Palate, Lunar New Year Celebration, and International Week

***West Liberty University, WV, USA***

- Spring 2013      **Academic Tutor**
- Fall 2012
- Tutor undergraduate students in Computing & Instructional Technology class
- Chinese Teacher**
- Design, develop, and teach Chinese classes to undergraduate students

***Stephen Foster Elementary School, FL, USA***

- Spring 2017      **Classroom Assistant**
- Assist 3<sup>rd</sup> grade Math and Science classes

***Howard Bishop Middle School, FL, USA***

- Spring 2017      **Classroom Assistant**
- Assist 6<sup>th</sup> grade Science class

***Yiwu Cambridge English School, Zhejiang, China***



Summer 2011      **English Teacher**  
● Design, develop, and teach 5th grade English

*Zhengyuan Primary School, Hubei, China*

Summer 2007      **Math & English Teacher**  
● Teach 3rd, 4th, and 5th grade English and Math

### CONFERENCE PRESENTATIONS

33. Schmidt, M., Lu, J., **Cheng, L.**, & Lee, M. (November, 2021). *Empathy Methods and Personas for Learning Experience Designers*. Paper presented at 2021 Conference of Association for Educational Communications and Technology.
32. **Cheng, L.**, Pastore, R., & Ritzhaupt, A. D. (November, 2021). *Testing the accelerated playback hypothesis in multimedia learning environments: A meta-analysis*. Paper presented at 2021 Conference of Association for Educational Communications and Technology.
31. **Cheng, L.**, Antonenko, P., Ritzhaupt, A. D., & MacFadden, B. (April, 2021). *Exploring the Role of 3D Printing and STEM Integration Levels in Students' STEM Career Interest*. Paper presented at AERA Annual Meeting Virtual Online.
30. **Cheng, L.**, Antonenko, P., Ritzhaupt, A. D., Miller, M. D. & MacFadden, B. (April, 2020). *Exploring the Relationship Between 3D Printing Integration in Science Classrooms and Students' STEM Motivation* [Paper Session]. AERA Annual Meeting San Francisco, CA <http://tinyurl.com/t42m5np> (Conference Canceled)
29. Valle, N., Antonenko, P., Xu, Z., **Cheng, L.**, Soltis, D. E., Soltis, P. S., Folk, R. A., Guralnick, R. P., Oliverio, J. C. & Difato, T. T. (April, 2020). *The Influence of a Multimedia-Enhanced Biodiversity Awareness Event on Motivation for Environmental Action* [Roundtable Session]. AERA Annual Meeting San Francisco, CA <http://tinyurl.com/vmmfkkk> (Conference Canceled)
28. Zhu, J., Dawson, K., Ritzhaupt, A. D., Hampton, J., Agacli Dogan, N., Xu, Z., **Cheng, L.**, & Huang, R. (October, 2019). *Evaluating the multimedia and modality principles on students with and without dyslexia*. Paper presented at 2019 Conference of Association for Educational Communications and Technology, Las Vegas, NV.
27. Koh, D., Antonenko, P., Schenps, M., Pomplun, M., Wang, J., Dawson, K., Xu, Z., **Cheng, L.**, & Li, J. (October, 2019). *Examining visual attention and learning in organic chemistry task using 2D and 3D molecule models*. Paper presented at 2019 Conference of Association for Educational Communications and Technology, Las Vegas, NV.
26. **Cheng, L.**, Beal, C. R., & Ritzhaupt, A. D. (April, 2019). *Effects of student-generated drawing and imagination on science text reading in a computer-based learning environment*. Paper presented at the 2019 Conference of the American Educational Research Association, Toronto, Canada.
25. Wilson, M. L., Ritzhaupt, A. D., & **Cheng, L.** (April, 2019). *Meta-analyses into the relationship between teacher education and technology integration attitudes, beliefs, and knowledge*. Paper presented at the 2019 Conference of the American Educational Research Association, Toronto, Canada.
24. **Cheng, L.**, Luo, W., Antonenko, P., Grant, C., & MacFadden, B. (October, 2018). *The influence of 3D printing integration on students' attitudes to STEM and 21st century learning*. Paper presented at the 2018 Conference of Association for Educational Communications and Technology, Kansas City, Missouri.
23. **Cheng, L.**, Luo, F. (October, 2018). *The effects of learner-generated drawing on learning outcomes and engagement: A systematic review*. Roundtable presented at the 2018 Conference of Association for Educational Communications and Technology, Kansas City, Missouri.
22. Ritzhaupt, A.D., **Cheng, L.**, Li, J., & Luo, W. (October, 2018). *Reframing our notion of eBooks: Technological and pedagogical affordances in the 21<sup>st</sup> century*. Paper presented at the 2018

- Conference of Association for Educational Communications and Technology, Kansas City, Missouri.
21. **Cheng, L.,** & Beal, C. R. (October, 2018). *The effects of student-generated drawing and imagination on learning a science text*. Poster presented at the Diversity Graduate Research Symposium at the University of Florida.
  20. **Cheng, L.,** Beal, C. R., & Mocko, M. (April, 2018). *What undergraduates worry about in online statistics class? A mixed-method research*. Paper presented at the 2018 Conference of the American Educational Research Association, New York, NY.
  19. **Cheng, L.,** Ritzhaupt, A. D., & Antonenko, P. (April, 2018). *Moderating Variables of Flipped Classroom Effectiveness: A Meta-Analysis*. Paper presented at the 2018 Conference of the American Educational Research Association, New York, NY.
  18. Antonenko, P., Schneps, M., Lamb, R., Keil, A., Pomplun, M., Beal, C., Dawson, K., Koh, D., H., Saunders, K., Miller, S. Wang, J., Burgess, A., **Cheng, L.,** Xu, Z., Li, J., Hardy-Pieczarka, K., Okundaye, A. O., Calhoun, C., & Stieglitz, K. (April, 2018). *Cognitive predictors of 2D and 3D molecular model comparison in an authentic Organic Chemistry task*. Paper presented at the 2018 Conference of the American Educational Research Association, New York, NY.
  17. Antonenko, P., Schneps, M., Lamb, R., Keil, A., Pomplun, M., Dawson, K., Koh, D., H., Saunders, K., Wang, J., Burgess, A., **Cheng, L.,** Xu, Z., Li, J., Hardy-Pieczarka, K., Okundaye, A. O., Calhoun, C., Stieglitz, K., & Miller, S. (April, 2018). *Gender differences in mental rotation performance using 2D and 3D molecular representations*. Paper presented at the 2018 Conference of the American Educational Research Association, New York, NY. **[Best Paper Award]**
  16. Wang, J., Dawson, K., Saunders, K., Ritzhaupt, A. D., Antonenko, P., Lombardino, L., Keil, A., Dogan, N., Luo, W., **Cheng, L.,** Davis, R. O. (April, 2018). *Examining the effects of modality and multimedia on the learning performance of dyslexic students*. Paper presented at the 2018 Conference of the American Educational Research Association, New York, NY.
  15. **Cheng, L.,** & Beal, C. R. (April, 2018). *The effects of student-generated drawing and imagination on learning a science text*. Poster presented at the Graduate Student Research Day at the University of Florida, Gainesville, FL.
  14. Antonenko, P., Schneps, M., Lamb, R., Pomplun, M., Koh, D. H., Saunders, K., Burgess, A., **Cheng, L.,** Xu, Z., Li, J. (March, 2018). *2D or 3D? Effects of Stimulus Dimensionality on Molecular Model Comparison in Organic Chemistry Task*. Paper presented at the 2018 Conference of the National Association for Research in Science Teaching (NARST), Atlanta, GA.
  13. **Cheng, L.** (November, 2017). *Flipped Classroom Effectiveness: Student Level, Subject Area, and Study Duration Matters*. Poster presented at the 2017 Conference of Florida Educational Research Association, Cocoa Beach, FL. **[Best Poster Award]**
  12. **Cheng, L.,** Beal, C. R., & Mocko, M. (November, 2017). *Providing structure to facilitate constructive peer feedback in a technology-enhanced classroom*. Paper presented at the 2017 Conference of Association for Educational Communications and Technology, Jacksonville, FL.
  11. **Cheng, L.,** Beal, C. R., & Mocko, M. (November, 2017). *Statistics anxiety of undergraduate students in an online statistics course*. Roundtable presented at the 2017 Conference of Association for Educational Communications and Technology, Jacksonville, FL.
  10. **Cheng, L.,** Beal, C. R., & Luo, F. (November, 2017). *Student statistics anxiety in online and face-to-face statistics courses: A literature review*. Roundtable presented at the 2017 Conference of Association for Educational Communications and Technology, Jacksonville, FL.
  9. **Cheng, L.,** Ritzhaupt, A. D. & Antonenko, P. (April, 2017). *Is flipped classroom more effective than traditional classroom? A meta-analytic review*. Poster presented at the 2017 Conference of American Educational Research Association, San Antonio, TX.
  8. Wang, J., Dawson, K., Antonenko, Saunders, K., P., Lombardino, L., Ritzhaupt, A. D., Dogan, N., **Cheng, L.,** Luo, W., Beal, C., Davis, R. O., & Keil, A. (April, 2017). *Converging behavioral and psychophysiological measures: Evaluating the effectiveness of multimedia learning conditions*



- with dyslexic learners*. Symposium presented at the 2017 Conference of American Educational Research Association, San Antonio, TX.
7. **Cheng, L.** (March, 2017). *Using Google Form to Facilitate Peer Feedback Activity: A Case Study*. Roundtable session at the 2<sup>nd</sup> Annual College of Education Symposium, University of Florida.
  6. **Cheng, L.**, Ritzhaupt, A. D. & Antonenko, P. (November, 2016). *Is flipped classroom more effective than traditional classroom? A meta-analytic review*. Paper presented at the 2016 Conference of Florida Educational Research Association, Lakeland, FL.
  5. Beal, C. R., **Cheng, L.**, & Mocko, M. (November, 2016). *Sources of statistics anxiety reported by students in an online statistics course*. Paper presented at the 2016 Conference of Florida Educational Research Association, Lakeland, FL.
  4. **Cheng, L.**, Ritzhaupt, A. D., & Antonenko, P. (October, 2016). *The effectiveness of the flipped classroom: A meta-analysis of the empirical literature*. Paper presented at the 2016 Conference of Association for Educational Communications and Technology, Las Vegas, NV.
  3. Ritzhaupt, A. D., Beal, C., Davis, R., **Cheng, L.**, & Wang, J. (October, 2016). *Multimedia and modality principles as a feedback strategy in multimedia learning environments: An eye tracking study*. Paper presented at the 2016 Conference of Association for Educational Communications and Technology, Las Vegas, NV.
  2. Luo, T., **Cheng, L.**, & Dani, D. (October, 2016). *Using Twitter or Paper? – Supporting peer instruction in a teacher education classroom*. Paper presented at the 2016 Conference of Association for Educational Communications and Technology, Las Vegas, NV.
  1. Gaudino, A. C., & **Cheng, L.** (November 18, 2015). *Key Issues in International Placements*. Paper presented at the 2015 Global Education Conference, Online presentation.

### **TRAVEL GRANTS**

2019	University of Florida School of Teaching and Learning Travel Grant, \$265
2018	University of Florida School of Teaching and Learning Travel Grant, \$365
2018	University of Florida Graduate School Council Travel Grant, \$350
2017	Irving and Rose Fien Doctoral Student Travel Award, \$400
2017	University of Florida School of Teaching and Learning Travel Grant, \$475
2017	University of Florida Graduate School Council Travel Grant, \$350
2016	University of Florida School of Teaching and Learning Travel Grant, \$250

### **PROFESSIONAL SERVICES**

#### **Leadership**

2016-2018	Graduate Student Coordinator for Florida Educational Research Association
2012-2013	Founder and President of Chinese Club at West Liberty University

#### **Dissertation Committee**

2022-2023	Served as a dissertation committee member focusing on quantitative methodology for Tommy Henley’s dissertation titled “Breaking the Circumstance: Kay Factors Influencing Latino Male Aspirations for a Four-Year College Degree” at Millersville University.
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#### **Assistant Journal Editor**

2014-2020	Assistant Editor, <i>The Excellence in Education Journal</i> (ISSN 2474-4166, Indexed by ERIC)
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#### **Journal Article Reviewer**

2019-2022	Reviewer for <i>Computers &amp; Education</i>
2020-2022	Reviewer for <i>Educational Technology Research and Development</i>
2022	Reviewer for <i>International Journal of Human-Computer Interaction</i>
2020-2021	Reviewer for <i>Journal of Research on Technology in Education</i>
2021	Reviewer for <i>Journal of Science Education and Technology</i>
2021	Reviewer for <i>Education and Information Technology</i>
2019	Reviewer for <i>SAGE Open</i>
2017	Reviewer for the <i>Journal of Educational Computing Research</i>
2016	Reviewer for the <i>TechTrends Journal</i>

### Conference Proposal Reviewer

2021	American Educational Research Association <ul style="list-style-type: none"> <li>● Division C – Learning and Instruction</li> <li>● SIG – Instructional Technology</li> <li>● SIG-Advanced Technologies for Learning</li> <li>● SIG-Technology, Instruction, Cognition &amp; Learning</li> <li>● SIG-Online Teaching and Learning</li> </ul>
2020	American Educational Research Association <ul style="list-style-type: none"> <li>● Division C – Learning and Instruction</li> <li>● SIG – Instructional Technology</li> </ul>
2020	Association for Education Communications and Technology <ul style="list-style-type: none"> <li>● Division – Distance learning</li> <li>● Division – Emerging Learning Technologies</li> <li>● Division of Technology Integrated Learning</li> </ul>
2019	Florida Educational Research Association
2019	American Educational Research Association <ul style="list-style-type: none"> <li>● Division C – Learning and Instruction</li> <li>● SIG – Design and Technology</li> <li>● SIG – Instructional Technology</li> <li>● SIG – Learning Sciences</li> </ul>
2019	Association for Education Communications and Technology <ul style="list-style-type: none"> <li>● Division of Emerging Learning Technologies</li> <li>● Society of International Chinese in Educational Technology</li> </ul>
2018	American Educational Research Association <ul style="list-style-type: none"> <li>● Division C – Learning and Instruction</li> <li>● Division H – Research, Evaluation and Assessment in Schools</li> <li>● Division K – Teaching and Teacher Education</li> <li>● SIG – Advanced Technologies for Learning</li> <li>● SIG – Computer and Internet Application in Education</li> <li>● SIG- Media, Culture, and Learning</li> </ul>
2018	Association for Education Communications and Technology <ul style="list-style-type: none"> <li>● Division – Distance learning</li> <li>● Division – Emerging Learning Technologies</li> </ul>
2018	International Conference of Learning Sciences (ICLS)
2017	Association for Education Communications and Technology <ul style="list-style-type: none"> <li>● Division – Research &amp; Theory</li> <li>● Division – Culture, Learning and Technology</li> <li>● Division – School Media &amp; Technology</li> <li>● Division – Teacher Education</li> </ul>

- Division – Design and Development Showcase

### Grant Reviewer

2017-2018 Graduate Student Council Travel Grant at University of Florida

### Conference Volunteer Service

2018 Technology Support, Association for Education Communications and Technology  
 2018 Facilitator, Teacher Research Symposium at P. K. Yonge Developmental Research school, Florida  
 2016-2017 Technology Facilitator for Florida Educational Research Association

### Community & University Service

2020 Committee Member of UF Technology and Distance Education Committee  
 2018 Facilitator, Teacher Research Symposium at P. K. Yonge Developmental Research school, Florida  
 2018 Coordinator for the speaker event with Dr. Tsai, advertising, luncheon, campus tour  
 2018 Coordinator for student luncheons with three faculty candidates for UF educational technology department  
 2017-2018 Communications coordinator for invited speaker event at UF COE  
 2017 Volunteer services in math and science classrooms of two Alachua County Public Schools  
 2015 Field Resetter for the First Annual Alachua County VEX Robotics Competition. Received training about the competition. Reset the playing field after each match. Made the matches flow well and maintained a smooth pace of the event  
 2013-2014 Community Service during Make A Difference Day at Marietta College  
 2013-2014 Community Service in the Harmar Community service center of Marietta  
 2012 Academic Tutor for a Chinese student in Brooke High School, WV  
 2012 Volunteer to help victims of tornado-stricken at West Liberty, Kentucky  
 2012 Representative for the Asia Virtual Tour in the International Office of WLU  
 2011 Volunteer for the Kids Zone of WLU Homecoming Football Game  
 2011 Cultural exchange on the International Day of Wheeling Country Day School  
 2011 Translator and coordinator for visiting American scholars from West Liberty University

## MEDIA APPEARANCES

Reported by UF News (2016)

- Merging neuroscience and education research to personalize multimedia and online learning  
<https://news.ufl.edu/articles/2016/12/merging-neuroscience-and-education-research-to-personalize-multimedia-and-online-learning.html>

Covered by two local newspapers in Marietta, Ohio (2014)

- Nicholson. Visiting the world from Marietta. *J The Marietta Times*. April 3, 2014, Section B Page 1
- Nicholson. 19th International Week Continues at Marietta College. *J The Parkersburg News and Sentinel*. April 3, 2014, Page 5A

Interviewed and covered by WLTV-14, a local TV channel at West Liberty, WV. (2013)  
<https://youtu.be/k07Jp16CPqY>

## SKILLS

### Technology Skills

- **Web development and programming:** HTML, CSS, JavaScript, Java, PHP, SQL, MySQL
- **Media production** (Adobe Captivate, Articulate Storyline, Adobe Photoshop, Audacity, Camtasia, Adobe Premier, iMovie, etc.)
- **Online teaching** (Canvas, Zoom, Adobe Connect, Blackboard)
- **Learning management systems** (Canvas, Moodle, Livetext, Sakai)
- **Webinar production** (Zoom)
- **Google apps for education** (Sites, Drive, Docs, Sheets, etc.)

### Research and Methodology

- **Quantitative:** Descriptive and Inferential Statistics; Meta-Analysis; Structural Equation Modeling; Multilevel Modeling; Theory of Measurement; Program Evaluation; Rating Scale Design and Analysis; Instrument Validation; Learning Analytics
- **Qualitative:** Case study; Focus group; In-depth interview; coding; thematic analysis
- **Mixed methods:** Convergent parallel mixed methods design; Explanatory sequential mixed methods design
- **Software:** R, SPSS, *Mplus*, SAS, RapidMiner

### Administration Skills

- Event and meeting planning, organizing, and coordinating
- Interpersonal and communication skills
- Collaboration skills and leadership skills

### Language Skills

- Fluent native Chinese and fluent in English
- Chinese & English translation

## CERTIFICATES

Jumpstart Your Skills with Large Language Models

Data Wrangling in R

Teaching for Inclusivity and Accessibility Certificate

Teaching Effective Workshops on Technology Integration Certificate

Teaching Effective Workshops on Pedagogy Certificate

Teaching Aide Certification in West Virginia

Computer Programmer and Computer Operator Certification in West Virginia

Secretary I, II, III, and Executive Certification in West Virginia