

**Jenny P. Quintana-Cifuentes**  
Assistant Professor of Curriculum & Instruction  
University of Louisiana at Monroe

**Education**

Purdue University, College of Engineering, West Lafayette, Indiana US		
Ph.D.	Engineering Education Specialization in Design reasoning and decision making	August 2022
M.S.	Environmental and Ecology Engineering	August 2022
Purdue University, Polytechnic Purdue Institute, West Lafayette, Indiana US		
M.S.	Technology Leadership and Innovation	August 2018
Educational University of Colombia (Universidad Pedagógica Nacional) Bogota, Colombia		
B.S.	Technological Design	December 2008

**Employment History**

**Research**

- A. Assistant Professor of Curriculum & Instruction for the School of Education
  - a. University of Louisiana Monroe.
- B. Graduate research assistant for the school of Engineering Education
  - a. Research on a Science and Engineering for Infrastructure Transformation project funded by NSF, DRL Division of Research on Learning grant on STEM education in K-12 program. Purdue University, West Lafayette, USA (August 2019-2022)
- C. Graduate research assistant for Library Science and Engineering Information Specialist
  - a. Purdue University, West Lafayette, USA August 2019 to August 2020
- D. Graduate research assistant for the Teaching and Learning Technologies: Course Design and Development team
  - a. Purdue University, West Lafayette, USA August 2017 to August 2018
- E. Graduate research assistant in the Technology Leadership and Innovation program
  - a. Purdue University, West Lafayette, USA August 2016 to August 2017

**Teaching Experience**

- A. Assistant Professor for the School of Education University of Louisiana Monroe, Monroe, USA
  - a. Course CURR 7000: Doctoral Proseminar, CURR 7007 Research in Effective Teaching and Learning, and CURR 7002-4 Quantitative Methods in Educational Research. Aug 2022 to present.
- B. Graduate teaching assistant for first-year undergraduate students. Purdue University,
  - a. Course ENGR 131: Transforming Ideas to Innovation I, an undergraduate course with 100 students. West Lafayette, USA April 2020 to Aug 2022

## Publications

### Peer-reviewed Publications

#### i. *Journal Articles*

- A. Watson, S., Quintana-Cifuentes, J., Case-Hanks, A., & Schulte, A. (2024). The U.S. landscape of elementary teachers' science course requirements. *The Journal of Science Teacher Education*. <https://doi.org/10.1080/1046560X.2024.2322209>.
- B. Quintana-Cifuentes, J., & Purzer, S. (2022). Semantic fluency in design reasoning. *International Journal of Engineering Education*, 38(6). 1-13
- C. Purzer, S., Schimpf, C., Quintana-Cifuentes, J., Sereiviene, E. & Lingam, I. (2022). An engineering design review coaching tool for supporting teacher noticing and scaffolding. *The Science Teacher*. 89(6). <https://www.nsta.org/science-teacher/science-teacher-julyaugust-2022/refine-design>
- D. Purzer, S., Quintana-Cifuentes, J. & Menekse, M. (2022) The epistemology-based honeycomb of engineering design framework. *Journal of Engineering Education*. 111(1).p. <https://doi.org/10.1002/jee.20441>
- E. Shao, G., Quintana-Cifuentes, J., Zakharov, W. Purzer, S., & Kim, E (2020) Exploring potential roles of academic libraries in undergraduate data science education curriculum development. *The Journal of Academic Librarianship*. 47(1). <https://doi.org/10.1016/j.acalib.2021.102320>
- F. Purzer, S., & Quintana-Cifuentes, J. (2019) Integrating engineering in K-12 science education: spelling out the pedagogical, epistemological, and methodological arguments. *Discipline Interdisciplinary Science Education Research*. 1, 13. <https://doi.org/10.1186/s43031-019-0010-0>
- G. Asunda, P. & Quintana, J. (2018), Positioning the T and E in STEM: A STL analytical content review of engineering education and technology education research. *Journal of Technology Education*, 30(1). <https://doi.org/10.21061/jte.v30i1.a.1>

#### ii. *Book*

- A. Schimpf, C., Purzer, S. Quintana-Cifuentes J. & Sereiviene, E. (2021). What does it mean to be Authentic? Challenges and opportunities faced in creating K-12 design projects with multiple dimensions of authenticity. In Sanzo, K., Scribner, J.P., Wheeler, J.A., & Maslow, K.W. (Editors) *Design Thinking: Research, Innovation, and Implementation*. Information Age Publishing (Early access: <https://www.infoagepub.com/products/Design-Thinking>)

#### iii. *Conference Proceedings Papers and presentations*

- a. Quintana-Cifuentes, J. , Seah, Y. Y. (2023). The interplay of first-year engineering students' engineering design reasoning and quality of the sources for problem framing. Proceedings of the 53rd Annual Frontiers in Education (FIE) Conference. College Station, TX. October 18-21, 2023.
- b. Cruz Castro L. Quintana Cifuentes, J. & Kumar A. (2023). Preference for debugging strategies and debugging tools and their relationship with course achievement: Preliminary results of a study involving novice programmers. Proceedings of the 130<sup>th</sup> ASEE Annual Conference and Exposition. July, 2023
- c. Purzer, Jiang, Lyss-Loren, Dermirci, & Quintana-Cifuentes (2023). Reasoning through iteration: How do engineering design projects promote student learning and self-efficacy? National Association for Research in Science Teaching., Chicago, IL
- d. Quintana-Cifuentes, J., & Purzer, S. (2020). Examining fluency in design reasoning with the semantic quadrants for design discourse framework. Mudd Design Workshop IX, Claremont, CA.

## Grant/endowments

The Upshaw Family Professorship for the College of Education (2022-2024)