

## Yuanhua Wang

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### EDUCATION

<b>Ph.D., Educational Psychology</b> <i>Texas Tech University</i>	December, 2019 Lubbock, TX
<b>M.S., Biological Science</b> <i>Texas Tech University</i>	May, 2013 Lubbock, TX
<b>M.S., Curriculum and Instruction</b> <i>Texas Tech University</i>	August, 2012 Lubbock, TX

### EMPLOYMENT

<b>Assistant Professor of Science Education</b> <i>West Virginia University</i>	2020-Present Morgantown, WV
<b>Graduate Instructor</b> <i>Texas Tech University</i>	2017-2019 Lubbock, TX

### SELECTED HONRS AND AWARDS

Open Educational Resources Grant Award, West Virginia University, 2022  
Summer Research Scholarship, West Virginia University, 2021  
Summer Research Scholarship, Texas Tech University, 2018  
Helen DeVitt Jones Fellowship, Texas Tech University, 2013 - 2016

### FUNDED GRANT

Kale, U. & Wang, Y. (2022-2025). National Science Foundation: Division Of Undergraduate Education. *Teaching Science with Computational Thinking: Preparing Preservice Elementary Educators of the Future STEM Workforce*. \$294,958. Award Number: 2142274. Project Role: Co-Principal Investigator.

### JOURNAL PUBLICATIONS

Wang, Y. (2023). Examining the role of sense of belonging and formative assessment in reducing the negative impact of learning anxiety in mathematics. *European Journal of Psychology of Education*, 1-23.

- Wang, J., **Wang, Y.**, Moore, Y., Sneed, S., Thacker, B., & Hart, S. (2023). Analyzing the patterns of questioning chains and their intervention on student learning in science teacher preparation. *International Journal of Science and Mathematics Education*.
- Wang, J., **Wang, Y.**, Wipfli, K., Thacker, B., & Hart, S. (2023). Investigating learning assistants' use of questioning in online courses about introductory physics. *Physical Review Physics Education Research*, 19(1), 010113.
- Wang, Y.** (2023). Self-concept, learning anxiety, and performance in mathematics learning: The moderating effect of teacher cognitive activation. *Eurasia Journal of Mathematics, Science and Technology Education*, 19(9), em2323.
- Wang, Y.**, Wang, J., Raymond, F., & Wang, J. (2023). Elementary pre-service teachers' horizon knowledge for teaching addition and subtraction: An analysis of video presentations. *Eurasia Journal of Mathematics, Science and Technology Education*, 19(6), em2276.
- Wang, J., & **Wang, Y.** (2021). Compare synchronous and asynchronous online instruction for science teacher preparation. *Journal of Science Teacher Education*, 32(3), 265-285.
- Wang, J., Sneed, S., & **Wang, Y.** (2019). Validating a 3E rubric assessing pre-service science teachers' practical knowledge of inquiry teaching. *EURASIA Journal of Mathematics, Science and Technology Education*, 16(2).
- Back, S. M., Tseng, W. C., Li, J., **Wang, Y.**, Phan, V. T., & Yeter, I. H. (2015). Training neighborhood residents to conduct a survey. *Journal of Higher Education Outreach and Engagement*, 19(2), 175-194.

## PROJECTS IN PROGRESS

- Wang, Y.** How and when does an early home learning environment improve children's kindergarten academic skills? the roles of language ability and self-control. (Revise and Resubmit). *Journal of Research in Childhood Education*.
- Wang, J. & **Wang, Y.** Investigating the authenticity of "students" in microteaching for science pre-service teacher education. (Revise and Resubmit). *Journal of Science Teacher Education*.
- Wang, J. & **Wang, Y.** Quantitative measurement of pre-service teachers' competence of questioning in scaffolding students' conceptual understanding. (Revise and Resubmit). *International Journal of Science and Mathematics Education*.
- Wang, Y.** & Kale, U. The effect of unplugged activities on preservice teachers' perception of competence, interest, and utility value. Working paper.

Kale, U. & **Wang, Y.** Future teachers' interest, competence, and perception of utility value regarding computational thinking in teaching science. Working paper.

Wang, J. & **Wang, Y.** Investigating learning assistants' knowledge of questioning on student knowledge of physics. Working paper.

Wang, J. & **Wang, Y.** Evaluating questioning competency in elementary pre-service teachers using Likert-scale questions. Working paper.

## TEACHING

### West Virginia University:

C&I 440: Elementary Science Method I

C&I 442: Elementary Science Method II

C&I 231: Mathematics for Elementary Teachers II

UTCH 322: Classroom Interactions in Mathematics and Science

C&I 602: Curriculum/Teaching Principles

EDUC 400: Instructional Design and Evaluation

### Texas Tech University:

BIO 1404: Biology II lab

BIO 1111: Environmental System lab

EDEL 4375: Teaching Science in Elementary (Online)

EDEL 4370: Teaching Mathematics in Elementary (Online)

## EDITORIAL AND REVIEW WORK

Grant Proposal Reviewer, *National Science Foundation, Division of Undergraduate Education*, 2022

Editorial Board Member, *Educational Research & Development Journal*, 2022-Present

Ad Hoc Reviewer, *Journal of Digital Learning in Teacher Education*, 2022, 2023

Proposal Reviewer, *AERA, Division C - Section 1d: Science*, 2022

## CONFERENCE PAPERS AND PRESENTATIONS

**Wang, Y.** (2023, April). *Reducing Learning Anxiety's Negative Impact: The Role of Sense of Belonging and Formative Assessment*. Paper presented at the American Educational Research Association (AERA) Annual Meeting, Chicago, Illinois.

**Wang, Y.** (2023, April). *The Effects of Self-Concept on Motivational Behaviors: The Contingent Roles of Cognitive Activation and Gender*. Paper presented at the American Educational Research Association (AERA) Annual Meeting, Chicago, Illinois.

- Wang, J., **Wang, Y.**, Thacker B., Wipfli, K., & Hart, S. (2022, March). *Investigating learning assistants' use of questioning in the online setting of an inquiry-oriented physics course*. Paper presented at the National Association for Research in Science Teaching (NARST), Vancouver, Canada.
- Wang, J., **Wang, Y.**, Guo, Y., & Kashef, S. (2022, March). *Examining elementary pre-service teachers' competence of questioning in leveraging students' conceptual understanding*. Paper presented at the National Association for Research in Science Teaching (NARST), Vancouver, Canada.
- Wang, Y.** & Caldera, Y. (2021, April). *Early Home Learning Environment, Language Ability, Self-regulation, and Academic Skills*. Paper presented at the American Educational Research Association (AERA), Virtual Annual Meeting due to COVID-19 pandemic.
- Wang, J. & **Wang, Y.** (2021, April). *Examine the Impact of Microteaching with Peers or Students in Preservice Science Teacher Education*. Paper presented at the American Educational Research Association (AERA), Virtual Annual Meeting due to COVID-19 pandemic.
- Wang, J. & **Wang, Y.** (2021, April). *Examine interactional formats in an online methods course for science teacher preparation*. Paper presented at the American Educational Research Association (AERA), Virtual Annual Meeting due to COVID-19 pandemic.
- Wang, J., **Wang, Y.**, Guo, L., Guo, Y., Sneed, S., & Wipfli, K. (2021, April). *Introduce a coding instrument for the quantitative analysis of teachers' questioning chains*. Paper presented at the National Association for Research in Science Teaching (NARST), virtual conference due to COVID-19 pandemic.
- Wang, Y.**, Wang, J., Flores, R., & Wang, G. (2018, April). *Examining the Types of Mathematical Connections Made by Elementary Preservice Teachers: A Video Analysis*. Paper presented at the American Educational Research Association (AERA) Annual Meeting, New York City, NY.
- Flores, R., Wang, J., Ortiz, R., Yi, M., **Wang, Y.**, Zeng, X., Wang, G., Zhang, S. & Neff, J. (2018, April). *Examining Elementary Preservice Teachers' Mathematics Knowledge for Teaching Using Video Surveys*. Paper presented at the American Educational Research Association (AERA) Annual Meeting, New York City, NY.
- Wang, G., Wang, J., Flores, R., Neff, J., & **Wang, Y.** (2018, April). *Impact of Jigsaw Collaboration on Preservice Teachers' Development of Specialized Content Knowledge for Teaching Mathematics*. Paper presented at the American Educational Research Association (AERA) Annual Meeting, New York City, NY.
- Wang, Y.**, Yi, M., Wang, G., & Flores, R. (2018, April). *Enhancing Preservice Teachers' Specialized Knowledge: An Intervention Study*. Presentation at the National Council of Teachers of Mathematics (NCTM) Annual Meeting, Washington, DC.
- Wang, Y.**, Wang, J., Flores, R., Yi, M., Neff, J., Zhang, S., & Zeng, X. (2017, April). *Elementary Preservice Teachers' Specialized Content Knowledge and Common Content Knowledge for Teaching Addition and Subtraction*. Paper presented at the American Educational Research Association (AERA) Annual Meeting, San Antonio, TX.

- Yi, M., Flores, R., Wang, J., **Wang, Y.**, Zeng, X., Zhang, S., & Neff, J. (2017, April). *The Influence of Van Hiele Theory-based Interventions on Elementary Pre-service Teachers' Geometry Knowledge for Teaching*. Paper presented at the American Educational Research Association (AERA) Annual Meeting, San Antonio, TX.
- Zeng, X., Wang, J., Flores, R., Zhang, S., **Wang, Y.**, Neff, J., & Yi, M. (2017, April). *Questioning to Understand Students: A Video-Analysis of Preservice Elementary Teachers' Use of Questions*. Paper presented at the American Educational Research Association (AERA) Annual Meeting, San Antonio, TX.
- Zhang, S., Flores, R., Wang, J., Zeng, X., Neff, J., Yi, M., & **Wang, Y.** (2017, April). *Elementary Preservice Teachers' Specialized Content Knowledge and Common Content Knowledge for Teaching Addition and Subtraction*. Poster presented at the American Educational Research Association (AERA) Annual Meeting, San Antonio, TX.
- Wang, Y.**, Wang, J., Flores, R. (2017, March). *Elementary Preservice Teachers' Horizon Knowledge for Teaching Addition and Subtraction: A Video Analysis Study*. Paper presented at the American Association of Colleges for Teacher Education (AACTE) Annual Meeting, Tampa, FL.
- Wang, Y.**, Wang, J., & Zeng, X. (2016, April). Preservice Teachers' Horizon Knowledge for Teaching Addition and Subtraction. A paper accepted by the annual meeting of the National Council of Teachers of Mathematics, San Francisco, California.
- Chesnut, S. R., **Wang, Y.**, & Barnard-Brak, L. (2015, April). *The influence of diverse personal factors and test anxiety on academic cheating behaviors*. A paper presented to the annual meeting of the American Educational Research Association (AERA), Chicago, Illinois.