# Curriculum Vitae
## Nuodi Zhang
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## General Information

University Address: Educational Psychology and Learning Systems
College of Education
Florida State University
Tallahassee, Florida 32306-4453

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## Education Background

2021 - Present, PhD in Instructional Systems and Learning Technologies, College of Education, Florida State University

2015 - 2018, MA in Applied Linguistics, College of Humanity, Beijing University of Posts and Communications

## Publications

### Refereed journal publications

2. **Zhang, N.,** Ke, F., Dai, C-P., Southerland, S., & Yuan, X. (2024). Seeking to improve preservice teachers' responsive teaching: leveraging artificial intelligence-supported virtual simulation. *British Journal of Educational Technology, 00, 1–22.*. http://doi.org/10.1111/bjet.13522

1. Kim, C., Na, H., **Zhang, N.**, & Bai, C. (2024). Escape rooms for education: A meta-analysis. *International Journal of Instruction*, 17(4), 219-234. https://doi.org/10.29333/iji.2024.17413a

### Refereed conference proceedings

11. Bhowmik, S., West, L., Barrett, A., **Zhang, N.,** Dai, C-P, Sokolikj, Z., Yuan, X., Southerland, S., & Ke, F. Evelyn AI — A Large Language Model-powered Virtual Student Agent for Pre-service Teacher Training in Virtual Environments. *European Conference on Technology Enhanced Learning* (ECTEL) 2024

10. **Zhang, N.**, Ke, F., Barrett, A., & Sokolikj, Z. Work-in-progress—Improving Computational Thinking for Learners with Autism in the Virtual World: A Longitudinal Study. In *2024 10th International Conference of the Immersive Learning Research Network (iLRN). pp. 164-169.* IEEE. https://doi.org/10.56198/U6C0WYZ8W

9. Barrett, A**.,** **Zhang, N.,** Ke, F., & Dai, C.-P.. Comparing the science talk of AI and human students. In *Proceedings of the 18th International Conference of the Learning Sciences (ICLS)*, *pp.* 2073-2074. https://doi.org/10.22318/icls2024.963739

8. Dai, C-P., Ke, F., **Zhang, N.,** Barrett, A., Bhowmik, S., West, L., & Yuan, X. Preservice Teacher Learning in Virtual Reality Simulation with Artificial Intelligence-Powered Virtual Students: Emotions and Teacher Talks Patterns. In *Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024, pp. 1051-1054*. International Society of the Learning Sciences.

7. **Zhang, N.,** Ke, F., Barrett, A., & Sokolikj, Z. An Evidence-centered and Process-oriented

Assessment of Computational Thinking for Learners with Autism. In *Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024, pp. 2167-2168.* https://doi.org/10.22318/icls2024.721396

6. **Zhang, N.**, Ke, F., Dai, C-P., Southerland, S., Barrett, A., Bhowmik, S., West, L., & Yuan, X. Exploring Preservice Teachers' Perceptions and Experiences of Teaching AI Students in Virtual Simulations. In *Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024, pp. 2417-2418.* https://doi.org/10.22318/icls2024.484241

5. **Zhang, N.**, Ke, F., Dai, C. P., & Barrett, A. (2024). Supporting Preservice Teachers' Responsive Teaching in Artificial Intelligence-integrated Simulations. In *Proceedings of the 18th International Conference of the Learning Sciences-ICLS 2024, pp. 2051-2052.* https://doi.org/10.22318/icls2024.502726

4. **Zhang, N.**, Xu, J., Wang, Z., & Dennen, VP. Exploring College Students' Positions in Interaction with ChatGPT. *29th Annual Teaching, Colleges, & Community Worldwide Online Conference-TCC 2024*

3. Dai, C. P., Ke, F., **Zhang, N.**, Barrett, A., West, L., Bhowmik, S., Southerland, SA., & Yuan, X. (2024). Designing Conversational Agents to Support Student Teacher Learning in Virtual Reality Simulation: A Case Study. In *Proceedings of The ACM CHI Conference on Human Factors in Computing Systems*. https://doi.org/10.1145/3613905.3637145

2. Barrett, A., Ke, F., Dai, C. P., West, L., Bhowmik, S., & **Zhang, N.** (2023). AI-Integrated Virtual Students for Teacher Training: Comparing Simulation-Based Classroom Dialogue With the Real Thing. In *Proceedings of the 17th International Conference of the Learning Sciences-ICLS 2023, pp. 1797-1798.* International Society of the Learning Sciences.

1. Barrett, A., **Zhang, N.**, Ke, F., Moon, J., & Sokolikj, Z. (2022, May). Work-in-progress—Developing an Evidence-Centered Model for Computational Thinking in Virtual Worlds with Children with Autism. In *2022 8th International Conference of the Immersive Learning Research Network (iLRN)* (pp. 1-3). IEEE. http://doi.org/10.23919/iLRN55037.2022.9815999

## Concurrent and Poster Presentations

22. Shi, H., Caskurlu, S., **Zhang, N.**, Na, H. To What Extent Has Machine Learning Achieved in Predicting At-Risk Students? Evidence From Quantitative Meta-analysis. Poster session accepted at American Educational Research Association (AERA), Denver, CO, United States.

21. **Zhang, N.**, Ke, F., Dai, C-P., Barrett, A. In-the-moment interpretation of student reasoning and emotion for responsive teaching: A study on AI-supported simulation. Concurrent session accepted at American Educational Research Association (AERA), Denver, CO, United States.

20. Barrett, A., Ke, F., Bhowmik, S., West, L., **Zhang, N.**, Dai, C-P., Yuan, X. Prompt engineering techniques for consistently relevant math-science conversations with an AI-powered student. Concurrent session accepted at American Educational Research Association (AERA), Denver, CO, United States.

19. Dai, C-P., Ke, F., **Zhang, N.** (2025). Optimizing Learning Support Design: Predictive Links to Teaching Knowledge and Self-Efficacy in AI-Integrated Virtual Reality. Concurrent session accepted at American Educational Research Association (AERA), Denver, CO, United States.

18. **Zhang, N.**, Ke, F., Dai, C-P. (2025). Seeking to support preservice teachers' responsive teaching: leveraging artificial intelligence-supported virtual simulation. Concurrent session accepted at American Educational Research Association (AERA), Denver, CO, United States.

17. Ocak, C., Caskurlu, S., **Zhang, N.**, Jun, B. Critical Perspectives Towards Technology

Integration: Insights from In-service Teachers. Concurrent session presented at Association for Educational Communications and Technology (AECT).

16. Wang, Z., **Zhang, N.,** Xu, J., Dennen, VP. (2024). Exploring College Students' Use of ChatGPT and Digital Literacy. Concurrent session presented at Association for Educational Communications and Technology (AECT).

15. Barrett, A., **Zhang, N.,** Wei, S. (2024). The Benefits of Narrative Immersion for Learning: A Media Comparison Study Using Structural Equation Modeling. Concurrent session presented at Association for Educational Communications and Technology (AECT).

14. Dai, C-P., Ke, F., **Zhang, N.,** Barrett, A., Bhowmik, S., West, L., Yuan, X. (2024). Teacher Noticing in Virtual Reality Simulation Classrooms: From Human Puppeteer to AI-Powered Virtual Student Agents. Concurrent session presented at Association for Educational Communications and Technology (AECT).

13. **Zhang, N.,** Ke, F., Dai, C-P., Barrett, A., Southerland, S., West, L., Bhowmik, S.,  Yuan, X. (2024). Improving preservice teachers' culturally responsive teaching self-efficacy through artificial intelligence-supported virtual simulation. Concurrent session presented at Association for Educational Communications and Technology (AECT).

12. **Zhang, N.,** Ke., F., Barrett, A., Sokolikj, Z. (2024, May 11-14). Detecting Neurodiverse Learners' Frustration During Educational Gameplay Using Sequential Pattern Mining. Concurrent session presented  at American Educational Research Association (AERA), Philadelphia, PA, United States.

11. **Zhang, N.,** Ke, F., Dai, C-P., Southerland, S., Bhowmik, S., West, L., Yuan, X. (2024, April 11-14). Understanding preservice teachers' perceptions and experiences in an AI-empowered teaching simulation. Concurrent session presented at American Educational Research Association (AERA), Philadelphia, PA, United States.

10. Shi, H., **Zhang, N.,** Na, H., Caskurlu, S., (2024, April 11-14). Machine Learning Applications for At-Risk Students Prediction in Online Learning Environments: A Systematic Review and Quality Assessment. Roundtable session presented  at American Educational Research Association (AERA), Philadelphia, PA, United States.

9. Dai, C-P., Ke, F., **Zhang, N.,** Barrett, A., Bhowmik, S., West, L., Yuan, X. (2024, April 11-14). Preservice teachers' emotions and ambitious teaching in virtual reality simulation with artificial intelligence-powered virtual humans. Concurrent session presented at American Educational Research Association (AERA), Philadelphia, PA, United States.

8. Barrett, A., Ke, F., Dai, C-P., **Zhang, N.,** Bhowmik, S., West, L., Yuan, X., Southerland, S. (2024, April 11-14). Teacher training in virtual-world simulations: Analyzing pre-service science teacher talk moves with AI-powered student agents. Concurrent session presented at American Educational Research Association (AERA), Philadelphia, PA, United States.

7. Barrett, A.,  **Zhang, N.,** Ke, F., Sokolikj, Z. (2023, Oct 15-20). A Correlation Analysis of Evidence-Centered Computational Thinking Behaviors from Two Subjects Over One Year. Concurrent session presented at Association for Educational Communications and Technology (AECT). Orlando, FL, United States.

6. Barrett, A., **Zhang, N.,** Wei, S. (2023, Oct 15-20). Transforming Perceptions on the Immersive Learning Affordances of Non-Interactive Media. Concurrent session presented at Association for Educational Communications and Technology (AECT). Orlando, FL, United States.

5. Dai C-P., Ke, F., Barrett, A., **Zhang, N.,** West, L., Southerland, S., Bhowmik, S., Yuan, X. (2023, Oct 15-20). Classroom dynamics and teaching practices with artificial intelligence virtual students in virtual reality. Concurrent session presented at Association for Educational Communications

and Technology (AECT). Orlando, FL, United States.

4. **Zhang, N.**, Barrett, A., Ke, F., Sokolikj, Z. & Moon, J. (2023, August 22-26). Improving computational thinking for children with Autism in the virtual world. Concurrent session presented at European Association for Research on Learning and Instruction (EARLI), Thessaloniki, Greece.

3. Barrett, A., Dai, C.-P., West, L., Bhowmik, S., **Zhang, N.** & Ke, F. (2023, August 22-26). Preservice teacher discourse with AI-integrated virtual students: A look at sentence function. Concurrent session presented at European Association for Research on Learning and Instruction (EARLI), Thessaloniki, Greece.

2. Dai, C-P., Ke, F., Southerland, S., Dai, Z., & **Zhang, N.** (2022, October). *Scenario design in virtual reality with Artificial Intelligence (AI)-powered virtual agents*. Concurrent session presented at Association for Educational Communications & Technology international convention (AECT), Las Vegas, NV, United States (and online).

1. **Zhang, N.**, Barrett, A., Ke, F., Moon, J. & Sokolikj, Z. (2023, May). An evidence-centered model for computational thinking assessment: Longitudinal observations of autistic youths in virtual worlds. Poster session presented at *American Educational Research Association (AERA) annual meeting*.

## Experience

### Research
*Integrating ChatGPT into higher education.* Florida State University. FL.
    Graduate assistant, 2023 - present
*Cultivating Cultural Responsiveness in Preservice Teachers with Mixed Reality Simulations and Virtual Students.* Florida State University. FL.
    Principle investigator, 2023 - present
*Neurodiversity Understanding and Resources for Transformative Engagement (NURTURE).* Florida State University. FL.
    Graduate assistant, 2023 - present
*Teaching Practices with Multiplayer Mixed Reality Simulations and Virtual Students.* Florida State University. FL.
    Graduate assistant, 2022 - present
*Virtual-Reality-Based Social and Cognitive Skills Training for Children with High Functioning Autism.* Florida State University. FL.
    Graduate assistant, 2021 - present

### Teaching
EME 2040 Introduction to Educational Technology, FSU, 2024 Fall (in person)
IELTS speaking, grammar, and vocabulary. New Oriental. Beijing, China.
    Instructor. 2020-2021
English extensive reading (undergraduate). Beijing University of Posts and Communications, Beijing, China.
    Instructor. 2017 Feb-Jul

### Instructional Design
ByteDance, Beijing, China
    Instructional designer. 2021

**Scholarship and Funds**

College of Education, Health, and Human Sciences Scholarship Fund (2024 Spring), Florida State University. Total award $500.

Travel fund (2023). Funded by Congress of Graduate Students, Florida State University. Total award $950.

Travel fund (2023). Funded by Congress of Graduate Students, Florida State University. Total award $600.

Travel fund (2023). Funded by Marvalene Hughes Research in Education Conference Committee, Florida State University. Total award $2,000.`

**Awards**

Best Proposal Award, Teacher Education Division, Association for Educational Communications & Technology (AECT), 2024

Robert M. Gagné Research Competition Finalist, College of Education, Health, and Human Science, Florida State University, 2024

Liliana Muhlman Masoner Outstanding International Student, ISLT, Florida State University, 2024

Ruby Diamond Future Professor Award, ISLT, Florida State University, 2024

## Services

**Florida State University**

Search committee, ISLT, FSU (2023)

**To the field**

<u>Reviewer for Refereed Journals</u>

Journal of Technology-Integrated Lessons and Teaching (2024)

The Internet and Higher Education (2024)

Technology, Pedagogy, and Education (2024)

<u>Reviewer for conferences</u>

CHI 2024

ISLS 2024

iLRN 2024

ISLS 2024

AECT 2023

EARLI 2023

ISLS 2023

ISLS 2022