

# Kunlei He

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## Research Interests and Methods

Topics	Child-computer interaction, conversational AI, early childhood learning
Methods	Experimental design, design-based implementation research, content analysis, structural equation modeling, machine learning

## Education

2027 (Expected)	<b>University of California, Irvine</b> – Irvine, CA Ph.D. in Education Advisors: Professors Mark Warschauer, & Penelope Collins.
2020	<b>Harvard Graduate School of Education</b> – Cambridge, MA M.Ed. in Language and Literacy Advisor: Professor Catherine Snow.
2019	<b>Wuhan University</b> – Wuhan, China B.A. in German

## Honors and Scholarships

2023	Best Paper Award, Interaction Design and Children Conference
2022	Teaching in Research Fellowship, University of California, Irvine
2020	Harvard Operation Impact First Prize, Harvard University
2020	Harvard President Innovation Challenge Semifinalist, Harvard University

## Publications

### Under-review Manuscripts

2024	Anonymous Authors (as the <b>First Author</b> ). Content Analysis on Children's Interactive Storytelling Apps [title modified to ensure blind review]. Submitted to <i>IDC'24</i>
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- 2024 Anonymous Authors (as the **First Author**). Home Deployment of a Bilingual Conversational Agent for Parent-Child Co-reading [title modified to ensure blind review]. Submitted to *CHI'24*
- 2024 Anonymous Authors (as the **Second Author**). Leveraging AI to Support Children's Science Learning from Educational Videos [title modified to ensure blind review]. Submitted to *Journal of Educational Psychology*

### Peer-reviewed Conference Proceedings

- 2023 Xu, Y., **He, K.**, Vigil, V., Ojeda-Ramirez, S., Liu, X., Levine, J., Cervera, K., & Warschauer, M. (2023, June) . "Rosita Reads With My Family": Developing A Bilingual Conversational Agent to Support Parent-Child Shared Reading. *In Proceedings of the 22nd ACM International Conference on Interaction Design and Children (IDC '23)*. Association for Computing Machinery, Chicago, IL, USA (**Best Paper Award**)

### Journal Articles

- 2021 **He, K.**, & Bowman, Y. Z. (2021). Association between teachers' shared book reading strategies and children's vocabulary development in rural China preschools. *Journal of Chinese Writing Systems*, 5(3), 185-193.

### Conference Presentations

- 2024 **He, K.**, Xu, Y., Levine, J., Ritchie, D., Bustamante., & Warschauer, M. (2024, March). *Artificial Intelligence Enhances Children's Science Learning from Television Shows by Boosting their Response to Questions of High Cognitive Demand* [Poster session]. Cognitive Development Society Conference, Pasadena, CA.
- 2023 **He, K.**, Xu, Y., Vigil, V., Ojeda-Ramirez, S., Cervera, K., & Warschauer, M. (2023, April). *Developing a Bilingual Dialogic Ebook with a Conversational Agent for Hispanic Families* [Paper session]. American Educational Research Association Annual Meeting, Chicago, IL.
- 2023 **He, K.**, Xu, Y., & Warschauer, M. (2023, February). *Leveraging Large Language Models to Improve the Design of Conversational Agents for Young Children's Learning*. CHI 2023 Workshop on Child-centred AI Design: Definition, Operation and Considerations, Hamburg, Germany.
- 2021 **He, K.**, & Bowman, Y. Z. (2021, April). *Association between Shared Book Reading Strategies and Children's Vocabulary Development in Rural China Preschools*. [Poster session]. American Educational Research Association Annual Meeting, Virtual.

## Teaching Experience

- 2022     **Guest lecturer**, EDUC 134 Teaching English Internationally  
**Guest lecturer**, EDUC 134 AI in Education

## Research Experience

- 2022–Present     **Digital Learning Lab**, University of California, Irvine  
Mentors: Dr. Mark Warschauer & Dr. Ying Xu.  
Design and evaluate AI-powered conversational agents to promote children’s language and STEM learning.
- 2021–2022     **The Snow Lab**, Harvard Graduate School of Education  
Mentors: Dr. Catherine Snow & Dr. Si Chen.  
Examined the associations between teachers’ shared book reading teaching strategies and children’s language learning outcomes.

## Service

### Professional Service

- 2023–Present     I serve as a reviewer for the following journals and conferences:  
Journal of Literacy and Technology  
ACM CHI Conference on Human Factors in Computing (CHI)  
ACM Conference on Interaction Design and Children (IDC)  
International Society of the Learning Sciences Conference (ISLS)

### University Service

- 2022–Present     Coordinator, Digital Learning Lab  
Mentor, UCI Undergraduate Research Opportunities Program
- 2024     Student Representative, UCI School of Education Admission Committee  
Peer Mentor, UCI Diverse Educational Community and Doctoral Experience
- 2023     Student Buddy, UCI School of Education Recruitment Weekend