Dr. Yizhen (Eejain) **Huang**

Post-doctoral Researcher in Educational Psychology

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Current Research Interests

- Application of virtual reality simulations for promoting instructional quality and educational success
- Experimental investigations of teachers' cognition and emotion in physical and virtual reality through multi-modal data
- Antecedents and outcomes of teachers' professional vision

Scientific Career

Aggarwal-Blackburn Visiting Scholar *Kent State University, United States*

EXTENDED REALITY INITIATIVE (XRI), SCHOOL OF TEACHING, LEARNING AND CURRICULUM STUDIES *2022/09*

- Lead Professor: Prof. Dr. Karl W. Kosco

Research Associate *Kiel University, Germany*

DEPARTMENT OF RESEARCH ON TEACHING AND TEACHER EDUCATION *2019–Present*

- Lead Professor: Prof. Dr. Thilo Kleickmann

Research Associate *University of Potsdam, Germany*

EDUCATIONAL RESEARCH IN EDUCATIONAL SCIENCES, DEPARTMENT OF EDUCATION *2018–Present*

- Lead Professor: Prof. Dr. Dirk Richter

Education

Ph.D. in Education and Psychology *University of Michigan, Ann Arbor, United States*

COMBINED PROGRAM IN EDUCATION AND PSYCHOLOGY *2016–2018*

- Graduate Date: August 17, 2018
- Dissertation Title: "Learning from Teacher's Eye Movement: Expertise, Subject Matter and Video Modeling"
- Doctoral Committee: Kevin F. Miller (chair), Kai S. Cortina, Richard D. Gonzalez, Priti R. Shah

M.S. in Psychology *University of Michigan, Ann Arbor, United States*

COMBINED PROGRAM IN EDUCATION AND PSYCHOLOGY *2013–2016*

- Graduate Date: December 22, 2016

B.S. in Psychology *Beijing Normal University, China*

SCHOOL OF PSYCHOLOGY *2009–2013*

- Graduate Date: July 01, 2013

Funded Research Projects

Compare interactive simulation and 360 video in virtual reality for teacher professioinal learning (€3,850) *Kent, United States and Potsdam, Germany*

UNIVERSITY OF POTSDAM   *2022*

- KoUP [Cooperation Funding at the University of Potsdam]
- Co-Principal Investigator. Co-PIs: Karl W. Kosco

Virtual Reality in Teacher Education *Potsdam, Germany*

EDUCATIONAL RESEARCH IN THE EDUCATIONAL SCIENCES, UNIVERSITY OF POTSDAM   *2019–Present*

- Internal Funding
- Co-Principal Investigator. Co-PIs: Dirk Richter, Thilo Kleickmann, Eric Richter

Understand Teacher's Professional Development Choices in Brandenburg *Potsdam, Germany*

EDUCATIONAL RESEARCH IN THE EDUCATIONAL SCIENCES, UNIVERSITY OF POTSDAM   *2018–2019*

- Internal Funding
- Co-Principal Investigator. Co-PIs: Eric Richter, Dirk Richter

Look through You: How First-person Perspective Video Promotes Perceptual Problem Solving? ($3,000) *Ann Arbor, United States*

RACKHAM GRADUATE SCHOOL, UNIVERSITY OF MICHIGAN   *2017–2018*

- Rackham Graduate Student Research Grant
- Principal Investigator. Co-PIs: Kevin F. Miller, Kai S. Cortina

Effects of Modeling that Convey Moral Standards on Delay of Gratification among Chinese and US Preschoolers ($5,000) *Ann Arbor, United States*

THE INTERNATIONAL INSTITUTE, UNIVERSITY OF MICHIGAN   *2016*

- International Institute Individual Fellowships
- Principal Investigator. Co-PIs: Kevin F. Miller, Kai S. Cortina

The Influence of First-person Perspective Video on Early Childhood Sex-typed Toy Choices ($4,000) *Ann Arbor, United States*

SCHOOL OF EDUCATION, UNIVERSITY OF MICHIGAN   *2014*

- Professor & Mrs. Cho-Yee To Fund
- Principal Investigator. Co-PIs: Kevin F. Miller, Kai S. Cortina

Awards, Scholarships, Further Competitive Grants

Kongressreisenprogramm [Congress Travel Program] (€2,259) *Bonn, Germany*

DAAD [GERMAN ACADEMIC EXCHANGE SERVICE]   *2022*

- Federal-level support for active participation of German scientists in international scientific congresses.

AERA SIG-IT Best Paper Award ($350) *Virtual*

AMERICAN EDUCATIONAL RESEARCH ASSOCIATION (AERA) INSTRUCTIONAL TECHNOLOGY SPECIAL INTEREST GROUP (SIG-IT)   *2021*

- Selected as the best research paper submitted to SIG-IT and accepted for presentation at the AERA 2021 Conference.

Study Innovation Prize (€100) *Potsdam, Germany*

FACULTY OF HUMAN SCIENCES, UNIVERSITY OF POTSDAM   *2020*

- Selected as the top three innovative teaching projects that promote good practice in E-Learning.

Potsdam Travel Grant (€1,480) *Potsdam, Germany*

POTSDAM GRADUATE SCHOOL, UNIVERSITY OF POTSDAM   *2019*

- Institute-level support for presentations in scientific events.

Rackham Conference Travel Grant ($800) *Ann Arbor, United States*

RACKHAM GRADUATE SCHOOL, UNIVERSITY OF MICHIGAN   *2015*

- Institute-level support for graduate students in good academic standings for academic conferences.

Publications

REFEREED JOURNAL ARTICLES

Richter, E., Hußner, I., **Huang, Y.**, Richter, D., & Lazarides, R. (2022). Video-based reflection in teacher education: Comparing virtual reality and real classroom videos. *Computers & Education*, 104601. `https://doi.org/10.1016/j.compedu.2022.104601`

Huang, Y., Richter, E., Kleickmann, T., & Richter, D. (2022). Class size affects preservice teachers' physiological and

psychological stress reactions: An experiment in a virtual reality classroom. *Computers & Education*, *184*, 104503. `https://doi.org/10.1016/j.compedu.2022.104503`

Huang, Y., Richter, E., Kleickmann, T., & Richter, D. (2022). Comparing video and virtual reality as tools for fostering interest and self-efficacy in classroom management: Results of a pre-registered experiment. *British Journal of Educational Technology*. `https://doi.org/10.1111/bjet.13254`

Huang, Y., Richter, E., Kleickmann, T., Wiepke, A., & Richter, D. (2021). Classroom complexity affects student teachers' behavior in a VR classroom. *Computers & Education*, *163*, 104100. `https://doi.org/10.1016/j.compedu.2020.104100`

Huang, Y., Miller, K. F., Cortina, K. S., & Richter, D. (2021). Teachers' professional vision in action: Comparing expert and novice teacher's real-life eye movements in the classroom. *Zeitschrift Für Pädagogische Psychologie*, 1–18. `https://doi.org/10.1024/1010-0652/a000313`

Richter, E., Marx, A., **Huang, Y.**, & Richter, D. (2020). Zeiten zum beruflichen Lernen: Eine empirische Untersuchung zum Zeitpunkt und der Dauer von Fortbildungsangeboten für Lehrkräfte [Time for professional learning: an empirical study about timing and duration of teacher training]. *Zeitschrift für Erziehungswissenschaft [Journal of Educational Science]*, *23*(1), 145–173. `https://doi.org/10.1007/s11618-019-00924-x`

Book Chapters and Reports

Cortina, K. S., Miller, K. F., Hua, S., Peist, E., **Huang, Y.**, & Wei, Y. (2013). Behavioral regulation of preschoolers in China and the US: the role of attention. In N. McElvany & H. G. Holtappels (Eds.), *Empirische Bildungsforschung: Theorien, Methoden, Befunde und Perspektiven [Empirical educational research: theories, methods, findings, and perspectives]* (pp. 125–133). Waxmann Verlag. `https://books.google.com?id=rUAdAAAAQBAJ`

Other Publications

Huang, Y. (2018). *Learning from teacher's eye movement: Expertise, subject matter and video modeling* [Doctoral dissertation, University of Michigan]. `https://doi.org/2027.42/145853`

Huang, Y. (2017). *A discussion on data visualization in 21st century education*. Blog of Center for Academic Innovation at University of Michigan. `https://ai.umich.edu/blog/a-discussion-on-data-visualization-in-21s`

Huang, Y., Foley, K., & Jankovic, F. (2017). *A picture is worth a thousand words: Understanding learners through visualization*. Blog of Center for Academic Innovation at University of Michigan. `https://ai.umich.edu/blog/a-picture-is-worth-a-thousand-words-understanding-learners-through-visualization/`

Submitted Manuscripts

Huang, Y., Lazarides, R., & Richter, D. (2022). *Teachers' adaptations to COVID-19: Perceived preparedness for distance education, frequency of teacher–student contact, and resources in ICT [Under review]*.

Huang, Y., Richter, E., Kleickmann, T., & Richter, D. (2021). Virtual reality in teacher education from 2010 to 2020: A review of program implementation, intended outcomes, and effectiveness measures [Accepted for publication]. In K. Scheiter & I. Gogolin (Eds.), *Bildung für eine digitale Zukunft [Education for a Digital Future]*. Springer. `https://edarxiv.org/ye6uw/`

Presentations

Refereed Conference Presentations

Huang, Y., Richter, E., Kleickmann, T., Wiepke, A., & Richter, D. (2021, April). *Classroom complexity affects student teachers' behavior in a VR classroom* [Paper presentation]. American Educational Research Association (AERA) 2021 Annual Meeting, Virtual.

Huang, Y., Richter, E., Kleickmann, T., & Richter, D. (2020, December 11). *Virtual reality and teacher education: A literature review for the last decade* [Paper presentation]. ZfE-Forum 2020: Bildung für eine digitale Zukunft [Journal of Educational Science Forum 2020: Education for a Digital Future], Virtual.

Huang, Y., Richter, E., & Richter, D. (2020, April). *Presence and efficacy: Training preservice teachers' classroom management skills in virtual reality* [Paper presentation]. American Educational Research Association (AERA) 2020 Annual Meeting, San Francisco, CA, United States (Conference Canceled). `http://tinyurl.com/vqq6flp`

Huang, Y., Miller, K. F., Cortina, K. S., & Richter, D. (2019, February). *Learning from teacher's eyes: Expertise and eye movements* [Paper presentation]. Gesellschaft für Empirische Bildungsforschung [Society for Empirical Educational Research] (GEBF) 2019 Annual Meeting, Köln, NW, Germany.

Richter, D., Wiepke, A., Richter, E., **Huang, Y.**, & Zender, R. (2019, February). *Nutzung von Virtual Reality-Technologie zur Erfassung von Klassenführungskompetenzen in der Lehrerausbildung [Using virtual reality technology to assess classroom management skills in teacher education]* [Paper presentation]. Gesellschaft für Empirische Bildungsforschung [Society for Empirical Educational Research] (GEBF) 2019 Annual Meeting, Köln, NW, Germany.

Richter, E., Marx, A., **Huang, Y.**, & Richter, D. (2019, February). *Zeiten zum Lernen: Eine empirische Analyse zum Zeit-punkt und der Dauer von Fortbildungsveranstaltungen für Lehrkräfte [Times to learn: An empirical analysis of the timing and duration of professional development events for teachers]* [Paper presentation]. Gesellschaft für Empirische Bildungsforschung [Society for Empirical Educational Research] (GEBF) 2019 Annual Meeting, Köln, NW, Germany.

Park, I., **Huang, Y.**, & Sun, X. (2018, April). *Effects of first impressions and instructional quality on student engage-ment: A continuous evaluation* [Symposium]. American Educational Research Association (AERA) 2018 Annual Meeting, New York, NY, United States.

Huang, Y., Miller, K. F., Cortina, K. S., & Su, L. (2017, April). *Effects of modeling on delay of gratification among Chinese preschoolers: Testing a new method for assessing self-control* [Poster presentation]. Society for Research in Child Development (SRCD) 2017 Biennial Meeting, Austin, TX, United States.

Huang, Y., Su, L., & Miller, K. F. (2015, March). *Looking through you: First-person perspective video affects Chinese preschoolers' sex-typed toy choices* [Poster presentation]. Society for Research in Child Development (SRCD) 2015 Biennial Meeting, Philadelphia, PA, United States.

Wang, Z., & **Huang, Y.** (2013, April). *Attention, self-regulation, and looking at distractions in preschool Chinese children* [Poster presentation]. Society for Research in Child Development (SRCD) 2013 Biennial Meeting, Seattle, WA, United States.

INVITED TALKS

Huang, Y. (2022, September). *Teach in virtual reality (VR): Understand preservice teachers' behaviors through VR ex-periments* [Talk]. Combined Program in Education and Psychology Colloquium Series, University of Michi-gan, Ann Arbor, MI, United States.

Huang, Y. (2022, September). *Uncoil preservice teachers' experiences through virtual reality experiments* [Talk]. The Gerald H. Read Center for International and Intercultural Education Guest Talk, Kent State University, Kent, OH, United States.

Huang, Y. (2022, June). *Professional vision in virtual reality: Experimental investigations of preservice teachers' noticing* [Talk]. Research Colloquium of Eye Tracking Working Group in Methods of Empirical Classroom Research, University of Augsburg, Germany. `https://www.uni-augsburg.de/de/fakultaet/philsoz/ fakultat/empirische-unterrichtsforschung/forschung/arbeitsgruppe-eye-tracking/`

Huang, Y. (2022, March). *Features and applications of the Potsdam virtual reality classroom* [Talk]. Module of Im-mersive Learning Environments from the Swiss Competence Centre for Innovations in Learning, St.Gallen, Switzerland.

Huang, Y. (2021, December). *Classroom features and preservice teachers' behaviors: Experimental investigations in a virtual reality (VR) classroom* [Talk]. Research Colloquium of the Professorships at the Department of Educational Science, University of Potsdam, Potsdam, Germany.

Huang, Y. (2018, October). *Learning from teacher's eye movement: Expertise, subject matter and video modeling* [Talk]. Research Colloquium of the Professorships at the Department of Educational Science, University of Potsdam, Potsdam, Germany.

Huang, Y. (2017, March). *Effects of modeling on delay of gratification among Chinese preschoolers: Testing a new method for assessing self-control* [Talk]. Combined Program in Education and Psychology Colloquium Se-ries, University of Michigan, Ann Arbor, MI, United States.

Huang, Y. (2015, October). *Looking through you: First-person perspective video affects Chinese preschoolers' sextyped toy choices* [Talk]. Combined Program in Education and Psychology Colloquium Series, University of Michigan, Ann Arbor, MI, United States.

Teaching Experience

Education on the Horizon: Teaching and Learning with Technology — *University of Potsdam*
[Undergraduate seminar] Instructor — *2019–Present*

Enhance Teaching and Learning through the Perspective of Cognitive Psychology — *University of Potsdam*
[Undergraduate seminar] Instructor — *2018–Present*

Understand Schooling through the Lens of Cross-cultural Comparisons — *University of Potsdam/Kiel University*
[Undergraduate seminar] Instructor — *2018–Present*

Educational Psychology and Human Development — *University of Michigan*
[Undergraduate seminar] Graduate Student Instructor — *2016*

Research Methods in Educational and Cross-cultural Contexts — *University of Michigan*
[Undergraduate seminar] Graduate Student Instructor — *2015*

Introduction to Psychology — *University of Michigan*
[Undergraduate seminar] Graduate Student Instructor — *2014–2017*

Psychology Subject — *Gucheng High School, Beijing, China*
High School Teacher — *2012*

Supervision of Theses

- Are Comic Books Suitable for Teaching Second Language? —- Example of English in German Secondary Education [Bachelor, 2020/10, University of Potsdam]
- Aufmersamkeitsverteilung bei Praxissemesterstudierenden [Distribution of visual attention among teacher trainees] [Master, 2020/06, University of Potsdam]

Working Experience

Data Visualization Specialist — *Ann Arbor, United States*
Digital Education & Innovation Lab, The Office of Academic Innovation, University of Michigan — *2016–2017*
- Responsible for managing, mining, analyzing and visualizing big data set for the Massive Open Online Courses provided by University of Michigan.

Program Leader — *Ann Arbor, United States*
Global Course Connection in China, Center for Global and Intercultural Study, University of Michigan — *2013–2017*
- Responsible for leading international comparison studies both in US and China, as well as facilitating the cultural and academic exchange between American and Chinese college students.

Graphic Designer — *Virtual*
Freelance — *2011–Present*
- Graphic designer specialized in scientific illustration and data visualization

Professional Service

Ad-hoc Peer Review

- Asia Pacific Education Review (2022–Present)
- Computers & Education (2021–Present)
- Frontiers in Psychology (2022-Present)
- European Journal of Teacher Education (2021–Present)
- International Conference on Information Systems (ICIS) (2022)

Institutional Service

Admissions Committee   *University of Michigan*
Combined Program in Education and Psychology   *2017–2018*

Colloquium Planning Committee   *University of Michigan*
Combined Program in Education and Psychology   *2016–2017*

Communications Committee   *University of Michigan*
Combined Program in Education and Psychology   *2014*

Executive Committee Cohort Representative   *University of Michigan*
Combined Program in Education and Psychology   *2013*

Graduate Student Mentor   *University of Michigan*
The Michigan Association of Psychology Scholars   *2013*

Current Memberships

- American Educational Research Association: Division C (Learning and Instruction), SIG 119 (Technology, Instruction, Cognition, and Learning), SIG 052 (Instructional Technology)
- American Psychological Association: Division 7 (Developmental Psychology), Division 15 (Educational Psychology)

Skills

Data Science	R, Mplus, SPSS, Tableau, Python
Reproducible Report	Markdown, org-babel, LaTeX, Pandoc
Programming Languages	C/C++/C#
Apparatus	SMI Mobile Eye-tracking system, Tobii Eye-tracking system, Pupil Labs Eye-tracking system, HTC VIVE
Quantitative Methods	Hierarchical Linear Modeling, Structural Equation Modeling, Survey Design, Unsupervised/Supervised Machine Learning
Languages	English, Mandarin

Place: Berlin, Germany

Date: 2022-09-10