

Dr. Yizhen (Eejain) Huang

POST-DOCTORAL RESEARCHER IN EDUCATIONAL PSYCHOLOGY

Educational Research in the Educational Sciences, Universität Potsdam, Karl-Liebknecht-Str. 24/25, 14476 Potsdam, Germany

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Current Research Interests

- Experimental investigations of teachers' cognition and emotion in physical and virtual reality
- Application of simulation in virtual reality for teacher education
- Teachers' professional vision and eye movements

Scientific Career

Research Associate

DEPARTMENT OF RESEARCH ON TEACHING AND TEACHER EDUCATION

- Lead Professor: Prof. Dr. Thilo Kleickmann

Kiel University, Germany

2019–Present

Research Associate

EDUCATIONAL RESEARCH IN EDUCATIONAL SCIENCES, DEPARTMENT OF EDUCATION

- Lead Professor: Prof. Dr. Dirk Richter

University of Potsdam, Germany

2018–Present

Education

Ph.D. in Psychology

COMBINED PROGRAM IN EDUCATION AND PSYCHOLOGY

- 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

University of Michigan, Ann Arbor,

United States

2013–2018

M.S. in Psychology

COMBINED PROGRAM IN EDUCATION AND PSYCHOLOGY

University of Michigan, Ann Arbor,

United States

2016–2017

B.S. in Psychology

SCHOOL OF PSYCHOLOGY

Beijing Normal University, China

2009–2013

Funded Research Projects

Virtual Reality in Teacher Education

EDUCATIONAL RESEARCH IN THE EDUCATIONAL SCIENCES, UNIVERSITY OF POTSDAM

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

Potsdam, Germany

2019–Present

Understand Teacher's Professional Development Choices in Brandenburg

EDUCATIONAL RESEARCH IN THE EDUCATIONAL SCIENCES, UNIVERSITY OF POTSDAM

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

Potsdam, Germany

2018–2019

Look through You: How First-person Perspective Video Promotes Perceptual Problem Solving?

RACKHAM GRADUATE SCHOOL, UNIVERSITY OF MICHIGAN

- Rackham Graduate Student Research Grant (\$3,000)
- Principal Investigator. Co-PIs: Kevin F. Miller, Kai S. Cortina

Ann Arbor, United States

2017–2018

Effects of Modeling that Convey Moral Standards on Delay of Gratification among Chinese and US Preschoolers

THE INTERNATIONAL INSTITUTE, UNIVERSITY OF MICHIGAN

- International Institute Individual Fellowships (\$5,000)
- Principal Investigator. Co-PIs: Kevin F. Miller, Kai S. Cortina

Ann Arbor, United States

2016

- Professor & Mrs. Cho-Yee To Fund (\$4,000)
- Principal Investigator. Co-PIs: Kevin F. Miller, Kai S. Cortina

Awards and Other Fundings

KoUP [Cooperation Funding at the University of Potsdam] (€3,850)

Potsdam, Germany

UNIVERSITY OF POTSDAM

2022

- Institute-level support for international collaboration

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

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., 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-21st-century-education/>
- 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.** (2022). Comparing video and virtual reality as tools for fostering interest and self-efficacy in classroom management: Results of a pre-registered experiment [Accepted for publication]. *British Journal of Educational Technology*.
- 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://edaxiv.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/vqq6f1p>
- 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 Lehrerbildung [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 Zeitpunkt 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 engagement: 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)

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, 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, May). *Teach in virtual reality (VR): Experimental investigations of preservice teachers' behaviors in a VR classroom* [Talk]. Research Colloquium of Department of Educational Research and Educational Psychology, IPN – Leibniz Institute for Science and Mathematics Education, Kiel, Germany.

Huang, Y. (2022, March). *Features and applications of the Potsdam virtual reality classroom* [Talk]. Module of Immersive 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 Series, University of Michigan, Ann Arbor, MI, United States.

Huang, Y. (2015, October). *Looking through you: First-person perspective video affects Chinese preschoolers' sex-typed 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

[UNDERGRADUATE SEMINAR] INSTRUCTOR

University of Potsdam

2019–Present

Enhance Teaching and Learning through the Perspective of Cognitive Psychology

[UNDERGRADUATE SEMINAR] INSTRUCTOR

University of Potsdam

2018–Present

Understand Schooling through the Lens of Cross-cultural Comparisons

[UNDERGRADUATE SEMINAR] INSTRUCTOR

University of Potsdam/Kiel

University

2018–Present

Educational Psychology and Human Development

[UNDERGRADUATE SEMINAR] GRADUATE STUDENT INSTRUCTOR

University of Michigan

2016

Research Methods in Educational and Cross-cultural Contexts

[UNDERGRADUATE SEMINAR] GRADUATE STUDENT INSTRUCTOR

University of Michigan

2015

Introduction to Psychology

[UNDERGRADUATE SEMINAR] GRADUATE STUDENT INSTRUCTOR

University of Michigan

2014–2017

Psychology Subject

HIGH SCHOOL TEACHER

Gucheng High School, Beijing, China

2012

Working Experience

Data Visualization Specialist

DIGITAL EDUCATION & INNOVATION LAB, THE OFFICE OF ACADEMIC INNOVATION, UNIVERSITY OF MICHIGAN

Ann Arbor, United States

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

GLOBAL COURSE CONNECTION IN CHINA, CENTER FOR GLOBAL AND INTERCULTURAL STUDY, UNIVERSITY OF MICHIGAN

Ann Arbor, United States

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

FREELANCE

Virtual

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

COMBINED PROGRAM IN EDUCATION AND PSYCHOLOGY

University of Michigan

2017–2018

Colloquium Planning Committee

COMBINED PROGRAM IN EDUCATION AND PSYCHOLOGY

University of Michigan

2016–2017

Communications Committee

COMBINED PROGRAM IN EDUCATION AND PSYCHOLOGY

University of Michigan

2014

Executive Committee Cohort Representative

COMBINED PROGRAM IN EDUCATION AND PSYCHOLOGY

University of Michigan

2013

Graduate Student Mentor

THE MICHIGAN ASSOCIATION OF PSYCHOLOGY SCHOLARS

University of Michigan

2013

Current Memberships

- Society for Research in Child Development
- 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, 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

References

Prof. Dr. Kevin F. Miller

PROFESSOR OF PSYCHOLOGY AND EDUCATION, UNIVERSITY OF MICHIGAN

kevinmil@umich.edu; 734-615-1800

Prof. Dr. Kai S. Cortina

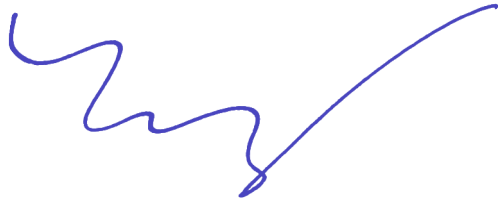
PROFESSOR OF PSYCHOLOGY, UNIVERSITY OF MICHIGAN

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Prof. Dr. Dirk Richter

PROFESSUR FÜR ERZIEHUNGSWISSENSCHAFTLICHE BILDUNGSFORSCHUNG [PROFESSORSHIP OF EDUCATIONAL RESEARCH IN THE EDUCATIONAL SCIENCES], UNIVERSITY OF POTSDAM

*dirk.richter@uni-potsdam.de;
0331-977-2133*

A handwritten signature in blue ink, consisting of a series of loops and a long, sweeping stroke that extends towards the upper right.