Dr. Yizhen (Eejain) Huang

Seelingstraße. 29, 14059 Berlin

■ huang@eejain.com | 希 eejain.com



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-
- Antecedents and outcomes of teachers' professional vision

Scientific Career ____

Aggarwal-Blackburn Visiting Scholar

EXTENDED REALITY INITIATIVE (XRI), SCHOOL OF TEACHING, LEARNING AND CURRICULUM STUDIES

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

Research Associate Kiel University, Germany 2019-Present

DEPARTMENT OF RESEARCH ON TEACHING AND TEACHER EDUCATION

• Lead Professor: Prof. Dr. Thilo Kleickmann

EDUCATIONAL RESEARCH IN EDUCATIONAL SCIENCES, DEPARTMENT OF EDUCATION

· Lead Professor: Prof. Dr. Dirk Richter

University of Potsdam, Germany

University of Michigan, Ann Arbor,

Kent State University, United States

2018-Present

United States

United States

2016-2018

2022/09

Education

Research Associate

Ph.D. in Education and Psychology

COMBINED PROGRAM IN EDUCATION AND PSYCHOLOGY

• Graduate Date: August 17, 2018

• Graduate Date: December 22, 2016

- · 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, M.A. in Statistics

DUAL DEGREE PROGRAM 2016-2018

• Graduate Date: August 17, 2018

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

COMBINED PROGRAM IN EDUCATION AND PSYCHOLOGY

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 Kent, United States and Potsdam, learning (€3,850) 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

2017-2018

- 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

- · 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

- · 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]

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

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

AERA SIG-IT Best Paper Award (\$350)

Virtual

2022

2021

2020

2019

2014

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

Study Innovation Prize (€100)

Potsdam, Germany

FACULTY OF HUMAN SCIENCES, UNIVERSITY OF POTSDAM

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

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

REFERED 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* [German Journal of Educational Psychology], 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 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) 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 experiments* [Talk]. Combined Program in Education and Psychology Colloquium Series, University of Michigan, 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 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, V.** (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' 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

[UNDERGRADUATE SEMINAR] INSTRUCTOR 2019-Present

Enhance Teaching and Learning through the Perspective of Cognitive Psychology

[UNDERGRADUATE SEMINAR] INSTRUCTOR 2018-Present

University of Potsdam/Kiel **Understand Schooling through the Lens of Cross-cultural Comparisons**

[UNDERGRADUATE SEMINAR] INSTRUCTOR 2018-Present

Educational Psychology and Human Development University of Michigan

[UNDERGRADUATE SEMINAR] GRADUATE STUDENT INSTRUCTOR

Research Methods in Educational and Cross-cultural Contexts University of Michigan

[Undergraduate seminar] Graduate Student Instructor

Introduction to Psychology University of Michigan

[UNDERGRADUATE SEMINAR] GRADUATE STUDENT INSTRUCTOR 2014-2017

Psychology Subject Gucheng High School, Beijing, China HIGH SCHOOL TEACHER

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

University of Potsdam

University of Potsdam

University

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

Responsible for managing, mining, analyzing and visualizing big data set for the Massive Open Online Courses provided by University of Michi-

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

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

COMBINED PROGRAM IN EDUCATION AND PSYCHOLOGY

University of Michigan COMBINED PROGRAM IN EDUCATION AND PSYCHOLOGY 2016-2017

Communications Committee University of Michigan

Executive Committee Cohort Representative University of Michigan

COMBINED PROGRAM IN EDUCATION AND PSYCHOLOGY

Graduate Student Mentor University of Michigan

THE MICHIGAN ASSOCIATION OF PSYCHOLOGY SCHOLARS

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

Hierarchical Linear Modeling, Structural Equation Modeling, Survey Design, **Quantitative Methods**

Unsupervised/Supervised Machine Learning

Languages English, Mandarin

Place: Berlin, Germany

Date: 2022-09-11