

Jingwen He

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EDUCATION

Ph.D. Candidate of Educational Psychology and Educational Technology 08/2023-present

Department of Counseling, Educational Psychology & Special Education, **Michigan State University**

Expected to graduate in May 2025

Thesis topic: Enhancing AI-Generated Feedback: The Role of Instructor Self-Disclosure in Fostering Student-Instructor Connection

Ph.D. student of Learning Technology, **The Ohio State University** (GPA: 3.90/4.0) 08/2021-08/2023

Master of Educational Assessment and Evaluation (GPA: 3.80/4.0) 09/2018-06/2021

Collaborative Innovation Center of Assessment toward Basic Education Quality (CICABEQ)

Beijing Normal University

Thesis topic: The Impact of Affective-Support Feedback on Students' Autonomous Inquiry Learning

Bachelor of Educational Management (GPA: 3.81/4.0) 09/2014-06/2018

Faculty of Education, **Beijing Normal University**

Thesis topic: An Empirical Study on Teaching Autonomy Support of Elementary School Teachers in Beijing

RESEARCH AND TEACHING INTEREST

My research focuses on the social-emotional dimensions of feedback, particularly in student-teacher relationships and motivation, as well as advanced methodologies for measuring engagement through data mining, experience sampling method, and video analysis. Additionally, I explore AI-facilitated assessment and evaluation to enhance educational practices. In my teaching, I specialize in educational psychology theory and quantitative methodology.

RESEARCH EXPERIENCE

Graduate Research Associate, Michigan State University, East Lansing, U.S. 08/2023-present

- *Hybrid2: Creating equitable spaces for science discourse in blended learning environments*, funded by the Institute for Education Sciences (IES), US Department of Education.
 - Designed survey and developed a comprehensive quantitative data collection plan.
- Facilitated grant writing for research on Artificial Intelligence and academic cheating.
- Managed Experience Sampling Method (ESM) data to measure students' situational engagement.
 - Applied advanced statistical methods to analyze multidimensional engagement factors from ESM surveys, pre/post surveys, and app usage data.

Graduate Research Associate, The Ohio State University, Columbus, U.S. 08/2021-08/2023

- *Assessment of students' social emotional skills in academic setting*, funded by the Ohio Department of Education.
 - Documented and managed longitudinal data collection over six years from 23 secondary schools.
 - Investigated changes in students' motivation trajectories throughout middle and high school.
- *The Influence of Contextual Features on Learning Engagement in Out-of-Classroom Settings for Academically At-Risk College Students*, funded by the Spencer Foundation.
 - Conducted learning analytics using K-means clustering and sequential pattern analysis to analyze student log data, measuring behavioral engagement and exploring pageview transition patterns.

Research Assistant, Beijing Normal University, Beijing, China

10/2017-08/2021

- *Web-based Science Inquiry Environment (WISE) Project*, funded by the National Natural Science Foundation of China.
 - Designed five project-based curriculums on web-based learning environment, wrote instructional guide for science teachers. Implemented project in five provinces in China and taught more than 2000 students.
 - Designed a series of mixed-method studies examining the impact of teachers' instructional feedback on students' social-emotional learning (e.g., basic psychological needs, motivation, self-regulated learning) and science knowledge integration skills.
 - Applied advanced methodologies to measure multidimensional engagement, utilizing video and the Facial Action Coding System to assess emotions during online science inquiry activities. Extracted key features from students' learning log data to measure behavioral engagement and its relationship with science learning performance.
- *Teacher Autonomy and Engagement: A Mixed-Methods Study in Beijing Elementary Schools*
 - Collected both quantitative and qualitative data from 520 elementary teachers in Beijing, China.
 - Employed Structural Equation Modeling (SEM) to analyze the relationship between teachers' perceived autonomy support and their work engagement, while exploring the mediating roles of basic psychological needs satisfaction and intrinsic motivation.
 - Utilized a sequential explanatory mixed methods design, combining quantitative analysis with semi-structured interviews to gain deeper insights into teachers' experiences.

Research Intern, Education Ecosystem Evolution Academy, Beijing, China

01/2020-07/2020

- Conducted comprehensive literature reviews and collaborated on teacher interviews as part of a team tasked with researching and developing standards for future teachers in China.
- Contributed to the writing and content development of educational standards aimed at fostering competency-based education within Chinese schools.

Data Analytics Intern, Collaborative Innovation Center of Assessment toward Basic Education Quality (Data Analysis Department), Beijing, China

08/2019-09/2019

- Participated in big data processing and data cleaning for the National Basic Education Quality Assessment.
- Analyzed assessment data to provide insights on the quality of basic education nationwide.

PUBLICATIONS

Peer-Reviewed Journal Article

9. He, J., Jiang, Z., Pan, Z., Men, Q., & Xie, K. (2025). The Transition Patterns of Learners' Behavior and the Association with Motivation and Cognitive Engagement in Online Learning. *Research and Practice in Technology Enhanced Learning*, 20, 026. (2023 ESCI Impact Factor 3.1)
8. Jiang, Z., Xu, Z., Pan, Z., He, J., & Xie, K. (2023). Exploring the Role of Artificial Intelligence in Facilitating Assessment of Writing Performance in Second Language Learning. *Languages*, 8(4), 247. (2023 ESCI Impact Factor 0.9)
7. He, J., Liu, Y., Ran, T., & Zhang, D. (2022). How Students' Perception of Feedback Influences Self-Regulated Learning: The Mediating Role of Self-Efficacy and Goal Orientation. *European Journal of Psychology of Education*, 1-19. (2023 SSCI Impact Factor 2.7)
6. He, J., Jin, B., Xu, Z., & Zhang, D. (2022). Measuring Elementary Students' Behavioral Engagement in Web-based Science Inquiry Learning. *Journal of Online Learning Research*, 8(3), 289-313.
5. He, J., Simon, S., & Chiang, F. K. (2022). A Comparative Study of Pre-Service Teachers' Perceptions on STEAM Education in UK and China. *STEM Education*, 2(4), 318-344.
4. Zhang, D., He, J., & Fu, D. (2021). How Can We Improve Teacher's Work Engagement? Based on Chinese Experiences. *Frontiers in psychology*, 12, 721450-721450. (2023 SSCI Impact Factor 2.6)

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3. Hackman, S. T., Zhang, D., & He, J. (2021). Secondary School Science Teachers' Attitudes towards STEM Education in Liberia. *International Journal of Science Education*, 43(2), 223-246. (2023 SSCI Impact Factor 2.2)
 2. Wei, D., Zhang, D., He, J., & Bobis, J. (2020). The Impact of Perceived Teachers' Autonomy Support on Students' Mathematics Achievement: Evidences Based on Latent Growth Curve Modelling. *European Journal of Psychology of Education*, 35(3), 703-725. (2023 SSCI Impact Factor 2.7)
 1. Chiang, F. K. & He, J. (2017). Analysis of Types of STEM Education Activities at Domestic and Abroad, *The Information Technology Education in Primary and Secondary School*, 11, 64-70. (In Chinese)

Book Chapter

3. He, J., Li, T., Xu, Z., & Xie, K. (2024). *Leveraging Generative AI in Designing and Delivering Individualized Responsive Feedback for Pre-Service Teachers in Higher Education*, Artificial Intelligence and Human Agency: Perspectives on Cognitive, Social, and Psychological Contexts, Springer. (Accepted in 2024, In Press)
2. He, J., Frazier, M., & Xie, K. (2023). *Student-Instructor Relationships in Online Learning in Higher Education*. In *Innovation Trends and Educational Technology in Higher Education*, IGI Global. (Accepted in 2023, In Press)
1. Hawk, N., He, J., & Xie, K. (2023). *A Comprehensive Framework of Engagement in K-12 Virtual Learning: Examining Communities of Support*. In Zimmerman, A. (eds.), *Research, Practice, and Innovations in Teacher Education During a Virtual Age*, IGI Global.

Manuscript Under Review

4. He, J., Jiang, Z., & Xie, K. (2024). Emotional Cost in High School Teachers: The Effect of School Support, Parent-Teacher Relationships, and Teacher Motivation. *Teachers and Teaching*.
3. He, J., Jiang, Z., & Xie, K. (2024). Exploring the Mediating Role of Relatedness Support in Autonomy Support, Structural Support and Motivation: Satisfaction with Student-teacher Relationships. *European Journal of Psychology of Education*.
2. Xie, K., Jiang, Z., Pan, Z., Men, Q., & He, J. (2024). Profiles of Students' Behavioral Engagement and Their Associations to Academic Motivation in Online Learning. *Journal of Computing in Higher Education*.
1. He, J., Liu, Y., Zhao, W., Xie, K., & Zhang, D. (2024). The Impact of Affective-Support Feedback on Students' Science Inquiry Learning. *The Journal of Experimental Education*.

Conference Presentation

13. He, J., Jiang, Z., & Xie, K. (2024, August). Emotional Cost in High School Teachers: Influence of School Support, Relationships, and Motivation. Paper Presentation at the Annual Conference of American Psychological Association (APA). Seattle, WA.
12. He, J. & Xie, K. (2024, August). The Role of Self-Efficacy and Self-Regulation in Students' Choice of Study Environments. Virtual Poster Presentation at the Annual Conference of American Psychological Association (APA). Seattle, WA.
11. He, J., Jiang, Z., & Xie, K. (2023, August). *How Do Teacher Autonomy Support and Structural Support Influence Student-Teacher Relationships?* Poster Presentation at the Annual Conference of American Psychological Association (APA), Washington, DC.
10. Xie, K., Jiang, Z., Pan, Z., Men, Q., & He, J. (2023, April). *Examining Learning Engagement through Sequential Pattern Mining*. Paper Presentation at the Annual Meeting of the American Educational Research Association (AERA), Chicago, IL.
9. Xie, K., Huang, L., Shortt, M., He, J., & Jiang, Z. (2023, April). The Role of Students' Motivation in Engagement and Performance in Online Learning in Higher Education Settings: A Systematic Analytical Review. Paper Presentation at the Annual Meeting of the American Educational Research Association (AERA), Chicago, IL.
8. He, J., Xie, K., Jiang, Z., & Vongkulluksn, V. (2023, April). *Examining Motivation Development During Adolescence Using a Combination of Variable-Centered and Person-Centered Approaches*. Poster

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- Presentation at the Annual Meeting of the American Educational Research Association (AERA), Chicago, IL.
7. Hawk, N.A., He, J., & Xie, K. (2022, October). *Communities of Support: Development of a Comprehensive Framework of Student Engagement in K-12 Virtual Learning*. Paper Presentation at the convention of the Association for Educational Communications and Technology (AECT), Las Vegas, NV.
 6. Pan, Z., Jiang, Z., Men, Q., He, J. & Xie, K. (2022, October). *A Two-Level Cluster Analysis that Integrates Fine-Grained Event-Based Sequences with Learner-Based Behavioral Patterns*. Paper Presentation at the convention of the Association for Educational Communications and Technology (AECT), Las Vegas, NV.
 5. Jin, B., Zhang, D., & He, J. (2021, April). The Role of Feedback Perception on Students' Motivation and Self-Regulated Learning in Web-Based Learning Environment. Paper Presentation at the Annual Meeting of the American Educational Research Association (AERA), Virtual.
 4. He, J., Jin, B., & Zhang, D. (2021, April). *Using Affection Supportive Feedback to Promote Students Engagement in Web-Based Science Learning Environment*. Roundtable Presentation at the Annual Meeting of the American Educational Research Association (AERA), Virtual.
 3. He, J. & Teng, J. (2020). *Learning and Practicing 21st Century Skills: A Comparative Study on Student Teachers Between Finland and China*. Paper Presentation at the Annual Conference of the Comparative and International Education Society (CIES), Miami, FL.
 2. Hou Y., He, J., & Zhang, D. (2019, April). *The Effects of Social Support and Achievement Motivation on Collaboration Problem Solving---Comparative study between China and the U.S.*, Paper Presentation at the Annual Meeting of the American Educational Research Association (AERA), Toronto, Canada.
 1. Cui Y., Wang, X., He, J., & Zhang, D. (2018). *The Empirical Study of Students' Opportunity to Express Opinions Freely in Web-based Science Inquiry Learning*. The 22nd Global Chinese Conference on Computers in Education (GCCCE 2018), pp: 87-95.

TEACHING AND CONSULTING

- Instructor for TE150 (Reflections on Learning), Michigan State University, U.S.** 01/2024-12/2024
- Contributed to course instruction by grading assignments and providing detailed, constructive feedback to enhance student learning.
 - Incorporated AI tools to support teaching and streamline feedback processes, aligning with constructivist learning principles to foster student engagement.
- Statistics Consultant, Quantitative Methodology Center, Columbus, U.S.** 08/2022-08/2023
- Offered quantitative methodology consultation to over 150 faculty members and students within the EHE department at The Ohio State University.
 - Lectured on two inferential statistics workshops.
 - Taught statistics at the Metro Early College High School design learning program.
- Teaching Assistant for Hierarchical Linear Model, Beijing Normal University, China** 09/2020-12/2020
- Provided grading, facilitated lab sessions, and offered software (HLM, SPSS, MPLUS, R) and data analysis support to assist students in mastering complex statistical techniques.
- Teaching Assistant for Multivariate Statistics, Beijing Normal University, China** 03/2020-06/2020
- Provided grading, facilitated lab sessions, and offered software (SPSS) and data analysis support to help students grasp advanced statistical concepts and techniques.
- Teaching Assistant for Educational Statistics, Beijing Normal University, China** 03/2019-06/2019
- Provided grading, organized lab sessions, and offered software (SPSS) and data analysis support to assist non-domestic students in understanding foundational statistical concepts.
- Science Teacher at Primary School of Niulanshan No.1 middle school, Beijing, China** 10/2017-11/2017
- Taught 4th grade and 6th grade science courses and conducted a two-week project-based learning course.

LEADERSHIP AND SERVICE EXPERIENCE

Reviewer for Journals and Book chapters

- Environment and Social Psychology
- Heliyon
- Qeios
- Book chapter: Artificial Intelligence and Human Agency in Education: Perspectives on Cognitive, Social, and Psychological Contexts
- Book chapter: Innovation Trends and Educational Technology in Higher Education

Reviewer for Conferences

- American Psychological Association Conference (APA), 2023
- International Conference of the Learning Sciences (ISLS), 2022
- Quantitative Methodology Conference, 2022

Guest Speaker for HDFS 2410 (Child Development)

04/19/2023

- Presented Self-Determination Theory, Expectancy-Value Theory, and Achievement Goal Theory.
- Discussed an empirical study on student motivation during middle and high school.
- Explained the use of both variable-centered and person-centered approaches to examine changes in motivation scores and profiles over time.

Fox Leadership International, University of Pennsylvania, U.S.

07/2017-08/2017

- Engaged in Fox Leadership International, focusing on global challenges such as aging, water protection, and vaccination during a two-week leadership and cultural exchange program.

Team Leader in PEER 2018 Summer Camp, Guangxi, China

07/2018-08/2018

- Led the planning and execution of a three-week summer camp, effectively building and managing a cohesive team.
- Collaborated with school leaders to address challenges related to course delivery, financial management, and logistical arrangements, ensuring the successful implementation of the camp program.

AWARDS AND SCHOLARSHIP

- Summer Research Fellowship, Michigan State University, 2023 (Department Research Grant for Graduate Students, examined the role of teacher autonomy support and structural support on students' motivation)
- University Fellowship, The Ohio State University, 2021 (Highly Competitive)
- Jingshi Second-rank Scholarship, CICABEQ, Beijing Normal University (BNU), 2020 (Top 30%)
- Jingshi First-rank Scholarship, CICABEQ, Beijing Normal University (BNU), 2019 (Top 10%)
- Outstanding Graduates in Beijing, Beijing Normal University (BNU), 2018 (Top 5%)
- Youth Entrepreneurship Competition in Beijing, Gold award, 2016 (Top 10%)
- Three-Year Jingshi First-rank Scholarship, Faculty of Education, BNU, 2015-2017 (Top 10%)
- Two-Year Competition Second-rank Scholarship, Faculty of Education, BNU, 2016-2017 (Top 30%)
- Three-Year Straight-A-Student, Faculty of Education, Beijing Normal University (BNU), 2015-2017

SKILLS

- Quantitative Research: R, SPSS, STATA, MPLUS, Survey Design, Data Cleaning, Regression Modeling, Structural Equation Modeling, Hierarchical Linear Modeling, Machine Learning
- Qualitative Research: Semi-structured Interview, Focus Group Interview, Participant Observation, NVivo
- Educational Measurement: Psychometrics, Item Response Theory, Classical Test theory, Test Development
- Instructional Design: Canvas LMS, D2L, Microsoft Office, Video Editing, Photography

REFERENCES

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