Xiaoshan Huang

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Research Interests

Emotions and Emotion Regulation · Socially-Shared Regulation · Computer-Supported Collaborative Learning · Social Presence · Group Cohesion · Multi-Modal Analysis · Educational Data Mining

Education

- 2021-present **Ph.D. Learning Sciences, Educational Psychology**, *McGill University*, Montreal, Canada, CGPA: 4.00 / 4.00.
 - 2019-2021 **M.Ed. Educational Psychology**, *McGill University*, Montreal, Canada, CGPA: 3.98 / 4.00.
 - 2018.03- Certificate of Exchange Student. Cognitive Sciences & British Literature, University 2018.06 of California, San Diego, California, the United States, CGPA: 3.58 / 4.00.
 - 2015-2019 **B.A. English Language and Literature**, *Shenzhen University*, Shenzhen, China, CGPA: 3.50 / 4.00.

Research Experience

Sep. Advanced Technologies for Learning in Authentic Settings (ATLAS) Research Team, 2019-Present Research Assistant.

- Worked under the supervision of Dr. Susanne Lajoie, McGill University.
- Lead projects in socio-emotional interaction and human-AI interaction within technology-rich learning environments.
- Analyzed multimodal data including verbal, behavioral, and physiological data (e.g., InqScribe, VESTA, and Whisper for audio transcription; FaceReader for facial expression, and MATLAB and python for electrodermal activities (EDA) and heart rates variabilities (HRV).
- Assisted in self- regulation and emotions in technology-supported learning projects.
- Collaborated in literature searching, writing, and publishing research papers in conference proceedings and followed up with new research protocols.

Internship and Work Experience

- Sep. **Bronfman Jewish Education Centre, Montreal, Canada**, *Workshop Teacher on Execu-* 2019-Dec. *tive Functions*.
 - 2019 A structured field work under the supervision of Dr. Carly, Rosenzwieg.
 - Developed resources focused on executive function skills for students from elementary to high schools.
 - Identified, planned, and delivered subject-theme educational activities for students of varying age groups.
 - Received an element of training with a supportive and high-performing team.

Aug. Shenzhen Yifeng Global Education, Shenzhen, China, IELTS Teacher.

- 2018-Sep. Tutored students in English listening, reading, and writing to maximize their understanding and scores.
 - Developed academic strategies, reviewed worksheets and created mock tests to prepare students with IELTS exam.
 - Guided students to adopt effective strategies to learn English and helped them achieve better performance in the IELTS exam (10 percent higher than their original scores).
 - Leaded and motivated students to complete assignments and helped them improve efficiency and effectiveness in learning.

Sep. Blang Education Center Co., Ltd., Shenzhen, China, English Teacher.

- 2017-Dec. Attended teacher training sessions and learned about general teaching standards.
 - 2017 Assisted supervisors in preparing teaching materials, writing reports, and other academic affairs, improving quality of teaching and working efficiency.
 - Taught English to Grade 11 and Grade 12 students, and helped them improve their English grammar, reading, writing, and speaking, and prepare for the Hong Kong Diploma of Secondary Education Examination (HKDSE).
 - Collected feedbacks from students and improved teaching practices.

Awards & Honors

- 2023 Fonds de recherche du Québec Société et culture (FRQSC), 83,333 CAD
- 2022-2023 Graduate Excellent Award, 20,000 CAD
 - 2022 Graduate Research Enhancement and Travel (GREAT) Award, 190 CAD
 - 2022 Education Graduate Students' Society (EGSS) Professional and Research Development Award, 250 CAD
- 2021-2022 McGill University International Tuition Scholarship (DFWs), 10,000 CAD
- 2021-2022 Educational & Counselling Psychology (ECP) Graduate Excellence Fellowship, 11,800 CAD
 - 2021 Educational & Counselling Psychology (ECP) Emerging Researcher Award, 8,200 CAD
 - 2018 USIEA-IELTS Scholarship (awarded by U.S. International Education Association), *1,000 USD*
 - 2017 Foreign Language Exam Scholarship, 200 USD
- Mar. 2017 Excellent Leader in Winter Social Practice, honorary award
- 2016 & 2017 Excellent Student of Art and Sports, 400 USD

- 2016 4th Prize in Women's Single in Freshmen Badminton Competition at Shenzhen Univ, honorary award
- 2015 Annual Outstanding Host of the Student Union, honorary award

Peer-reviewed Publications

- 2024 **Huang, X.,** Li, S., Wang, T., & Lajoie, S.P. (Submitted). The effects of emotion regulation and students' perceived challenges on emotion synchrony in collaborative learning. *Affective Science*.
- 2024 **Huang, X.,** Li, S., Wang, T., & Lajoie, S.P. (Major Revision). Exploring the relationships between learners' social and cognitive presence patterns and peer feedback in digital social reading. *SN Social Sciences*.
- 2024 **Huang, X.,** Zheng, J., Li, S., Zhu, G., Du, H., Zhong, T, Hou, C., & Lajoie, S.P. (Major Revision). Investigating the Effect of Emotional Tone on Learners' Reading Engagement and Peer Acknowledgment in Social Annotation. *Australasian Journal of Educational Technology*.
- 2024 **Huang, X.,** & Lajoie, S.P. (Major revision). Promising Techniques for Studying Emotion Regulation in Teamwork: Advantages and Challenges of Measuring Emotional Responses. *Current Psychology*.
- Zhu, G., Zhong, T., Du, H., **Huang, X.,** Zheng, J., Li, S., & Hou, C. (Under Review). Top friends in online social annotation: Offline group affiliation and disciplinary background-based homophily. *The Internet and Higher Education*.
- 2024 Li, S., **Huang, X.,** Lin, L., & Chen, F. Peer Interaction in Social Annotation: How to Get Upvotes? *British Journal of Educational Technology*.
- 2024 Nguyen, A., Hong, Y., Huong, D., & **Huang, X.**. Examining doctoral students' regulation of academic writing processes in human-AI collaboration with ChatGPT. *Studies in Higher Education*.
- 2024 Li, S., **Huang, X.,** Zhu, G., Du, H., Zhong, T., Hou, C., & Zheng, J. Exploring behavioral patterns and their impact on social annotation outcomes. *Journal of Computer Assisted Learning*.
- 2023 Chen, F., Li, S., Lin, L., & **Huang, X.,**. Identifying temporal trajectories of student engagement in social annotation during online collaborative reading. *Education and Information Technologies*.
- Huang, X., Li, S., & Lajoie, S.P. The relative importance of cognitive and behavioral engagement to task performance in self-regulated learning with an intelligent tutoring system. In: Frasson, C., Mylonas, P., Troussas, C. (eds) Augmented Intelligence and Intelligent Tutoring Systems. ITS 2023. Lecture Notes in Computer Science, vol 13891. Springer International Publishing.
- 2023 Lin, L., Li, S., **Huang, X.,** & Chen, F.. Longitudinal changes of student engagement in social annotation: A growth modeling approach. *Distance Education*.

- 2023 **Huang, X.,** & Lajoie, S.P. Social emotional interaction in collaborative learning: Why it matters and how can we measure it?. *Social Sciences and Humanities Open*.
- 2023 **Huang, X.,** Ruiz-Segura, A., Tan, C., Wang, T., Sharma, R., & Lajoie, S.P. Social presence in technology-rich learning environments: A systematic review. *Journal of Information and Learning Sciences*.
- 2023 Li, S., **Huang, X.,** Wang, T., Zheng, J., & Lajoie, S.P. (Submitted). Using the linguistic features of think-aloud transcripts to predict reasoning activities in clinical problem solving. *Computers and Education*.
- 2023 **Huang, X.,** Li, S., Wang, T., Pan, Z., & Lajoie, S.P. Exploring the co-occurrence of students' learning behaviours and medical reasoning processes: An epistemic network analysis. *Journal of Computer Assisted Learning*.
- 2023 Huang, L., Chen,B., Doleck, T., **Huang, X.,** Tan, C., Lajoie, S.P., & Wang, M. Multimodal learning analytics for assessing teachers' self-regulated learning in planning technology-integrated lessons in a computer-based environment. *Education and Information Technologies*.
- Wang, T., Li, S., **Huang, X.,** & Lajoie, S. P. Task complexity affects temporal characteristics of self-regulated learning behaviours in an intelligent tutoring system. *Educational Technology Research and Development*.
- Jiang, Y., Lin, W., **Huang, X.,** Duan, L., Wu, Y., & Jiang, P. How to prompt training effectiveness? An investigation on achievement goal setting intervention in workplace learning. *Journal of Workplace Learning*.
- 2022 **Huang, X.,** Huang, L., & Lajoie, S.P. Exploring teachers' emotional experience in TPACK development. *Educational Technology Research and Development*.
- 2022 Li, S., **Huang, X.,** Wang, T., Pan, Z., & Lajoie, S.P. Examining the interplay between self-regulated learning activities and types of knowledge within a computer-simulated environment. *Journal of Learning Analytics*.
- Wang, T., Li, S., **Huang, X.,** Pan, Z., & Lajoie, S. P. Examining students' cognitive load in the context of self-regulated learning with an intelligent tutoring system. *Education and Information Technologies*.
- Wang, X., Xue, T., Green, A., Gu, L., He, Y., **Huang, X.,** Jin, Z., & Wu, Y. Workplace learning in china: Transferring training into practice to improve performance. *International Journal for Research in Vocational Education and Training*.
- 2020 **Huang, X.,** Huang, L., & Lajoie, S.P. (2020). Relations between SRL and teachers' emotions in technology integration. In *EDULEARN20 Proceedings*, pp.2249-2256. https://10.21125/edulearn.2020.0692

Conference Papers

2024 **Huang, X.,** & Gao, J. (2024, August). A Comprehensive User Experience Analysis of Emotional Tones and Key Themes in ChatGPT Reviews. Paper to be present at the annual conference of the American Psychological Association, Seattle, WA, US

- Zhang, Y., Huang, X., Wang, S., Song, Y., Jin, HY., & Cutumisu, M. (2024, June). Employing tree-based algorithms to predict secondary students' body image satisfaction in PISA 2022. Paper submitted to the annual conference of the Canadian Society for the Study of Education (CSSE), Montreal, QC, Canada
- 2024 Gao, J., **Huang, X.,** Dubé, A., & Lobczowski, N. (2024, June). *Exploring Duolingo users' learning experience through text mining*. Paper to be present at the Annual Conference of the International Society of the Learning Sciences, Buffalo, US
- Zhu, G., Zhong, T., Du, H., Zheng, J., Huang, X., Li, S., & Hou, C. (2024, June). Homophily in hybrid learning: Are your top social annotation friends also your offline group members? Paper to be present at the Annual Conference of the International Society of the Learning Sciences, Buffalo, US
- 2024 Huang, X., Wu, H., Liu, X., & Lajoie, S. P. (2024, May). Examining the role of peer acknowledgements on social annotations: Unraveling the psychological underpinnings. Paper to be present at the ACM CHI Conference on Human Factors in Computing Systems, Honolulu, US
- 2024 **Huang, X.,** Zheng, J., Li, S., & Lajoie, S. P. (2024, April). *Investigating the effect of emotional tone on learners' engagement and peer acknowledgment in social annotation.* Paper to be present at the Annual Meeting of the American Educational Research Association, Pennsylvania, US
- 2024 Li, S., Huang, X., Zhu, G., Du, H., Zhong, T., Hou, C., & Zheng, J. (2024, April). Behavioral patterns in social annotation and their effects on learning performance. Paper to be present at the Annual Meeting of the American Educational Research Association, Pennsylvania, US
- 2024 Wang, T., Zheng, J., Huang, X., Chen, M., Ruiz-Segura, A & Lajoie. S.P. (2024, April). Student engagement profiles in technology-rich environments: What they reveal about motivational beliefs, perceived difficulty, and performance. Paper to be present at the Annual Meeting of the American Educational Research Association, Pennsylvania, US
- Zhong, T., Zhu, G., Du, H., Huang, X., Li, S., Zheng, J & Hou, C. (2024, April). Overlapping between offline and online group membership in a social annotation network. Paper to be present at the Annual Meeting of the American Educational Research Association, Pennsylvania, US
- 2024 Lin, W., Wang, X., **Huang, X.**, Liang, M & Wu, Y. (2024, March). *Enhancing workplace training efficiency: An exploration of employees' behavioral patterns on training outcome using learning analytics*. Paper to be present at the 14th International Learning Analytics and Knowledge Conference, Kyoto, Japan. *BEST PRAC REPORT NOMINEE*
- Hou, C., Zhu, G., Zheng, J., Li, Li., **Huang, X.,** Zhong, T., Li, S., Du, H., & Ker, C. (2024, April). *Prompt-based and fine-tuned GPT models for context-dependent and independent deductive coding in social annotation*. Paper to be present at the 14th International Learning Analytics and Knowledge Conference, Kyoto, Japan

- 2023 **Huang, X.,** Li, S., Wang, T., & Lajoie, S. P. (2023, August). *Learners' presence patterns and their relationship with peer feedback in digital social reading*. Paper presented at the 20th Biennial European Association for Research on Learning and Instruction (EARLI) Conference, Thessaloniki, Greece
- 2023 **Huang, X.,** Beck, S., Huang, L., & Lajoie, S. P. (2023, June). *How do teachers experience and regulate emotions in online instruction?* Paper presented at the Annual Meeting of the International Society of the Learning Sciences, Montreal, Canada
- 2023 Li, S., Zheng, J., Huang, X., Wang, T., & Lajoie, S. P. (2023, June). Detection of goal setting and planning in self-regulated learning using machine learning and think-aloud protocols. Paper presented at the Annual Meeting of the International Society of the Learning Sciences, Montreal, Canada
- 2023 Zheng, J., Li, S., **Huang, X.,** Wang, T., & Lajoie, S. P. (2023, June). *Do thinking styles change with task complexity in problem-solving?* Paper presented at the Annual Meeting of the International Society of the Learning Sciences, Montreal, Canada
- 2023 **Huang, X.,** Wang, T., Li, S., Ruiz-Segura, A., Tan, C., & Lajoie, S.P. (2023, April). *Emotion synchrony in collaborative learning: The effects of emotion regulation and students' perceived challenges.* Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, US
- 2023 **Huang, X.,** Ruiz-Segura, A., Tan, C., Wang, T., Sharma, R., & Lajoie, S.P. (2023, April). *A systematic review of social presence in technology-rich learning environments.* Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, US.
- 2023 Tan, C., Huang, X., Ruiz-Segura, A., Lajoie, S. P., & Wiseman, J. (2023, April). Co-occurrence of self-regulated learning and emotions: A case study on learning to manage deteriorating patients. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, US.
- 2023 Tan, C., Wang, T., **Huang, X.**, Lajoie, S. P., & Wiseman, J. (2023, April). *Managing a deteriorating patient: How medical students' self-regulated learning and emotions predict cognitive load*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, US.
- 2023 Ruiz-Segura, A., Wang, T., **Huang, X.,** Tan, C., Zhang, Y., Li., T., & Lajoie, S. P. (2023, April). *Understanding the relationship of flying performance and emotions in an aviation training task*. Paper to be presented at the Annual Meeting of the American Educational Research Association, Chicago, US.
- 2023 Wang, T., Ruiz-Segura, A., Li, S., Huang, X., Tan, C., & Lajoie, S. P. (2023, April). Temporal characteristics of self-regulated learning behaviors influences students' problemsolving efficiency in a technology-rich learning environment. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, US.

- Wang, T., Zheng, J., Tan, C., Ruiz-Segura, A., **Huang, X.,** & Lajoie, S. P. (2023, April). Computer-based scaffoldings facilitate students' metacognitive monitoring and problem-solving efficiency in an intelligent tutoring system. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, US.
- 2022 **Huang, X.,** Beck, S., Huang, L., & Lajoie, S.P. (2022, April). *Exploring teachers' emotions and emotion regulation in online contexts*. Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, California, US.
- 2022 Beck, S., **Huang, X.,** Huang, L., & Lajoie, S.P. (2022, April). *Teaching during COVID-19:* A grounded theory of instructors' lived experiences and coping in remote/online settings. Paper presented at the Annual Meeting of the American Educational Research Association Annual Conference, San Diego, California, US.
- 2022 Ruiz Segura, A., Wang, T., Tan, C., Huang, X., & Lajoie, S. (2022, April). Feedback as a moderator of the relationship between medical students' achievement goal orientations and emotions. Paper presented at the Annual Meeting of the American Educational Research Association Conference, San Diego, US.
- 2022 Wang, T., Li, S., Ruiz-Segura, A., Tan, C., Huang, X., & Lajoie, S.P. (2022, April). How task complexity affects medical students' self-regulated learning: A process analysis. Paper presented at the Annual Meeting of the American Educational Research Association Conference, San Diego, US.
- 2021 **Huang, X.,** Huang, L., & Lajoie, S. P. (2021, April). *Examining teaching experience, prior knowledge and SRL's influence on teachers' epistemic emotions in TPACK*. Paper presented at the Annual Meeting of the American Educational Research Association, Orlando, US.
- Huang, X. (2021, March). How can a change laboratory be applied to improve learners' learning behavior? Oral presentation at the McGill's Education Graduate Students' Society (EGSS) Annual Conference, Montreal, QC.

Teaching Experience

2024 Winter EDPE 375 Introductory Statistics, Teaching Assistant

- Assist the course instructor Dr. Patrick Devey in the online course which provides an introduction to the fundamentals of descriptive and inferential statistics.
- Attend office hours and reply to students' inquiry about the course regarding topics in descriptive statistics include introduction to statistics, measures of central tendency, variability and correlation.
- Assess students' assignments on inferential statistics concentrate on basic procedures in between-group hypothesis testing using dependent and independent t-tests and withingroup hypothesis testing using correlation.

2023 Fall EDPE 640 Emerging Technologies for Educational Change, Teaching Assistant

- Evaluated, marked and responded to students' reflections and discussions on the discussion forum.
- Assisted the course instructor Dr. Adam Dubé with group presentation submissions.
- Evaluated and marked students' final projects including the annotated bibliographies and papers related to the application of technology in various learning contexts, for instance, virtual reality in medical training, gamed-based learning for children engagement, and generative Artificial Intelligence in education.

2022 Winter EDPT 204 Creating and Using Media for Learning, Teaching Assistant

- Facilitated discussions and responded to students' questions on Perusall, a discussion forum for collaborative learning and knowledge sharing.
- Assisted the instructor with small group discussions and evaluated the lab activities.
- Evaluated and marked students' media products on educational technologies such as Adobe Spark, FlipGrid, and Peardect.

Nov. 2021 EDPE 666 Foundations of Learning Science, Guest Speaker

- Introduced analytic methods on think-aloud protocols including transcript techniques and codding skills in previous research projects in Learning Sciences.
- Assisted group leader to lead class activity in better knowledge acquisition of the topic.
- Booted students' critical thinking and answered students' questions in class.

2021 Fall EDPT 200 Integrating Educational Technologies in Classrooms, Teaching Assistant

- Assisted the course instructor's instruction in class and facilitate students with reading materials on Launchpad.
- Helped with the small group discussions, lab activities, and personal website building during the class.
- Evaluated and marked students' weekly journal and critical reflections.

Assessment and Review Activities

- 2023 International Journal of Human-Computer Interaction, Invited Reviewer
- 2023 Journal of Learning Analytics, Invited Reviewer
- 2023 **European Association for Research on Learning and Instruction (EARLI)**, Section 8 Motivation and Emotion, **Graduate Reviewer**
- 2022 **Frontiers in Psychology**, the special issue on Methodological and Empirical Advancements in Emotions and their Regulation in Various Collaborative Learning Contexts, **Guest Reviewer**
- 2022 Knowledge Management & E-Learning: An International Journal (KM&EL), Reviewer

2021 the Annual Meeting of the American Educational Research Association (AERA), Division C - Cognitive and Motivational Processes & Special Interest Group (SIG) -Technology, Instruction, Cognition, and Learning, Graduate Reviewer

Leadership and Community Activities

2023 Fall Social Interaction & Research Communication-Doctoral Consortium at McGill ECP, Founder.

- Founded and host bi-weekly online doctoral consortium forums that invites guest speakers from international institutions to share their latest insights in their domain of expertise.
- Facilitated interactions and conversations among invited scholars and graduate students who are interested in learning and/or conducting research on diverse topics in Educational Psychology.

2023 summer The 20th Biennial European Association for Research on Learning and Instruction (EARLI) Conference, Section chair.

- Host a round-table discussion where four papers presentations were involved on the topic of Teaching Practices as the section chair.
- o Facilitated conversations on research thoughts exchange among audience and presenters.

Sep.2022- The Quebec Scientific Entrepreneurship Program (QcSE), Member.

- Dec.2022 Participated in a 12-week program subsidized by the Fonds de recherche du Québec.
 - Communicated with other STEM and Social Science researchers from Quebec, learned the fundamentals of entrepreneurship, and evaluated an idea's market potential, transforming academic research into a world-changing tech company.

2022 Summer Educational and Counselling Psychology (ECP) Programs Event, Speaker.

• Discovered, prepared & presented information about the Learning Sciences concentrations for upcoming graduate students in Educational and Counselling Psychology.

Sep.2021- **Department of Educational Psychology and Counselling Psychology, International** Sep.2022 **Student Group (ECP-ISG)**, *Community Member*.

- Organized two social events (virtual due to COVID) for supporting international students' mental and social needs.
- Coordinated with community members to hold academic workshops for students on formal writing and professional development.
- Attended committee meetings to discuss potential actions to build up stronger connection in the ECP community and host supportive workshops and events.
- Organized a video competition on the topic "How have you experienced multiculturalism at McGill?".

Nov.2019- **Department of Educational Psychology and Counselling Psychology at McGill Uni-**Mar.2020 **versity**, *Hiring Committee – Co-Student Representative*.

- Attended a training on equitable recruitment practices.
- Reviewed and ranked candidates' confidential application documents.
- Attended committee meetings to determine the short list of applicants to be interviewed and organized the "Lunch with ECP Graduate Students."

Mar.2017- Shenzhen Lighten Entrepreneurship Promotion Association, Coordinator.

- Mar.2018 Participated in the formulation of the Chamber of Commerce to organize programs, committed to internal membership building, and coordinated communication.
 - o Assisted the founder in publicizing affairs, issued invitation and created sign-up applet to ensure the smooth running of the normal operation and activities.
 - Structured meeting record, advanced the implement of proposal.

Workshops

2023 Fall CREAT lab Methods workshops, co-host

- o Co-host the bi-weekly methodology workshops with Dr. Nikki Lobczowski for training junior PhD students on practical methods applications in their research interests.
- Organized and participated in the training of students in qualitative analytics methods such as code mapping and crowdsourcing.
- Worked collaboratively with Dr. Lobczowski to operate the workshops smoothly, including designing the content for workshop flyers, outlining workshop slides and making appointments for meeting cohorts.

2021 Summer ST Math (MIST) workshop, remote

- o Participated in the daily ST Math (MIST) workshop host by Dr. Rutherford from University of Delaware.
- Attended trainings to students in quantitative analytics methods such as R and STATA in the research areas of educational games.
- Worked collaboratively on brainstorming for potential research questions and analyzing current data using methods learned.

Technical Skills

Languages

Softwares & Quantitative analysis: Python, R & RStudio, MATLAB, SQL, SPSS, MPlus, RapidMiner,

Epistemic Network Analysis, SmartPLS Qualitative Analysis: MAXQDA, NVivo Visualization: Tableau, Figma, XMind

Transcription: OpenAI Whisper, Microsoft Azure Cognitive Services