王帅 (Shuai Wang)

长聘教轨副教授、博士生导师 上海交通大学教育学院 上海市闵行区东川路 800 号 邮箱: shuai.wang@sjtu.edu.cn

王帅,博士,长聘教轨副教授,博士生导师,教育学院院长助理(分管培训),入选上海市海外高层次引进人才/上海市领军人才计划。博士毕业于美国伊利诺伊大学香槟校区(UIUC)教育心理系。归国前任职于美国斯坦福国际咨询研究所多年,世界最负盛名的教育类智库之一;其长期使用量化分析的研究方法,设计与评价现代教育及科技的干预手段,为教育政策的制定与执行提供实证依据。

王帅博士主持、共同主持、深度参与十余项包含美国国家自然科学基金和美国教育部支持的教育学课题,在美期间担任美国国家自然科学基金评审。其研究发表在众多国际权威期刊上,并在众多 SSCI 学术期刊与国际重要会议担任评审。其研究受到国际媒体的关注,包含美国国家自然科学基金首页特写报道。

Education 教育经历

2016 美国伊利诺伊大学香槟校区

University of Illinois at Urbana-Champaign (UIUC), U.S.

教育心理学博士

Ph.D. in Educational Psychology

2011 美国伊利诺伊大学香槟校区

University of Illinois at Urbana-Champaign (UIUC), U.S.

统计学硕士

M.S. in Statistics

2009 青岛大学

Qingdao University, CN

英语学士

B.A. in English

校毕业致辞发言人

Valedictorian

2008 美国密苏里州立大学

Missouri State University (MSU), U.S.

交换学生

Exchange Student

Professional Experience 工作经历

2021-Present 院长助理,长聘教轨副教授,博士生导师

Assistant Dean, Tenure-track Associate Professor, Ph.D. Student Advisor

上海交通大学

Shanghai Jiao Tong University, CN

2016-2021 智库研究员

Education Researcher

美国斯坦福国际咨询研究所

SRI International (Also Known As: Stanford Research Institute), U.S.

2009-2015 讲师及助教

Lecturer and Graduate Teaching Assistant

美国伊利诺伊大学香槟校区

University of Illinois at Urbana-Champaign, U.S.

Selected U.S. Federal Grants 纵向课题

2020-2021 **Funding Source:** U.S. National Science Foundation

Role: Co-Principal Investigator 共同主持

Project: Automated Collaboration Assessment Using Behavioral Analytics

(#2000545).

Amount: \$749,976

2019-2021 **Funding Source:** U.S. National Science Foundation

Role: Co-Principal Investigator 共同主持

Project: Strengthening Middle School Mathematical Argumentation through Teacher Coaching: Bridging from Professional Development to Classroom

Practice (#2016849). **Amount:** \$2,980,888

2018-2021 Funding Source: U.S. Department of Education

Role: Participant 深度参与

Project: Mathematics, 3D Printing, and Computational Thinking through Work-

Based Learning for Middle Schoolers (MPACT) (#U411C180070).

Amount: \$3,923,862

2015-2019 **Funding Source:** U.S. National Science Foundation

Role: Consultant 顾问

Project: Collaborative Research: Investigating How English Language Learners Use Dynamic Representational Technology to Participate in Middle School

Mathematical Practices (#1534626).

Amount: \$1,124,073

2013-2017 **Funding Source:** U.S. Department of Education

Role: Participant 深度参与

Project: Validating the SunBay Middle School Digital Mathematics Program

(#U411B130019). **Amount:** \$11,981,927

Selected Foundation & Commercial Funding (Amount Undisclosed) 横向课题

2022 Funding Source: Shanghai Teacher Training Center 上海市师资培训中心

Role: Principal Investigator 主持

Project: 2022 Governance of Shanghai teacher data (teacher information

database)

2022 年教育专题数据库 (教职工信息库) 教师数据治理研究

2021 Funding Source: Shanghai Teacher Training Center 上海市师资培训中心

Role: Principal Investigator 主持

Project: 2021 Governance of Shanghai teacher data (teacher information

database)

2021 年教育专题数据库(教职工信息库)教师数据治理研究

2020-2021 **Funding Source:** IXL Learning

Role: Principal Investigator 主持

Project: Evaluation of IXL Math. IXL Learning is an educational technology company that offers e-learning tools for K-12 students and teachers, with 1 in 6

students already using IXL in the U.S.

2017-2021 **Funding Source:** Squirrel Ai Learning

Role: Principal Investigator 主持

Project: Evaluation of Squirrel Ai Learning, a Chinese commercial Artificial

Intelligence-based product that provides personalized and adaptive instruction to

students.

2019-2021 **Funding Source:** Imagine Learning, Inc.

Role: Participant 深度参与

Project: Evaluation of Imagine Learning's Imagine Math, a web-based

mathematics learning program for grades 3-8 combining adaptive instruction, a

motivational system, and on-demand support from virtual teachers.

2017-2021 **Funding Source:** Apple, Inc.

Role: Participant 深度参与

Project: Evaluation of Apple One-to-One ConnectED Program.

2016-2021 **Funding Source:** Pearson

Role: Participant 深度参与

Project: Evaluation of Mastering Chemistry, a tech-based adaptive learning resource used to improve Chemistry learning among post-secondary students.

2016-2019 **Funding Source:** Multi-funder Initiative Led by Achieving the Dream

Role: Participant 深度参与

Project: Evaluation of the Open Educational Resources Degree Initiative.

2016-2017 **Funding Source:** Mitchell Hamline School of Law

Role: Participant 深度参与

Project: Evaluation of a First-of-its-kind Hybrid Law Graduate Program.

2016-2018 **Funding Source:** Bill and Melinda Gates Foundation

Role: Participant 深度参与

Project: Evaluation of the Next Generation Courseware Challenge.

2016-2017 **Funding Source:** Bill and Melinda Gates Foundation

Role: Participant 深度参与

Project: Evaluation of EdReady.

2016-2017 **Funding Source:** Joyce Foundation

Role: Participant 深度参与

Project: Evaluation of instructional technologies to support adult basic education

programs in the instruction of basic literacy and numeracy skills.

Peer-reviewed Publications (* Corresponding Author)

[21] Summers, R., & **Wang, S.*** (2023). Measuring a cross-sectional sample of students' intentions to engage with science and modeling associations according to two theoretical perspectives. *International Journal of Science Education*. [SSCI, Q2]

- [20] Griffiths, R., Mislevy, J., & Wang, S.* (2022). Encouraging impacts of an open education resource degree initiative on college students' progress to degree. *Higher Education*. [SSCI, Q1]
- [19] Huang, F.†, Mislevy, J. L.†, **Wang, S.***†, Wei, X.†, & Zhang, X†. (2022). Editorial: Rigorous and high-quality efficacy studies of educational technology interventions. Section of Educational Psychology, appearing in both *Frontiers in Education* [ESCI] & *Frontiers in Psychology* [SSCI, Q1] [† Co-first Author; names are in alphabetical orders].
- [18] Liu, J., Pascarella, E., Wang, Q., Fu, J., & Wang, S.* (2022). Reproduction of educational disadvantage? Examining the bachelor's degree attainment, college GPA, and graduate

- degree plan of non-native English-speaking students. *Journal of Language, Identity, and Education*. [SSCI, Q2]
- [17] **Wang, S.*,** Griffiths, R., Christensen, C., D'Angelo, C., & Condon, K. (2022). An evaluation of a first-of-its-kind hybrid law degree program. *Journal of Computing in Higher Education*. [SSCI, Q1]
- [16] **Wang, S.*,** Christensen, C., Cui, W., Tong, R., Yarnall, L., Shear, L., & Feng, M. (2020). When adaptive learning is effective learning: Comparison of an adaptive learning system to teacher-led instruction. *Interactive Learning Environments*. [SSCI, Q1]
- [15] **Wang, S.***†, Christensen, C.†, Xu, Y., Cui, W., Tong, R., & Shear, L. (2020). Examining Chinese middle school students' motivation using the reduced instructional materials motivation survey (RIMMS): A validation study in the education technology setting. *Frontiers in Psychology*. [SSCI, Q1] [† Co-first Author]
- [14] **Wang, S.,** Perry, M.*, Mingle, L. A., & McConney, M. (2020). Examining discourse structures in Chinese and U.S. elementary mathematics classes. *International Journal of Educational Research*, *99*, 101493. [SSCI, Q2]
- [13] **Wang, S.***†, Bajwa, NP.†, Tong, R.†, & Kelly, H. (2020). Transitioning to online instruction. In: Burgos, D., Tlili, A., & Tabacco, A. (Eds.) *Radical Solutions for Education in a Crisis Context: COVID-19 as an Opportunity for Global Learning*. Springer. [† Co-first Author] [Book Chapter]
- [12] **Wang, S.*†,** Christensen, C.†, McBride, E.†, Kelly, H., Cui, W., Tong, R., Shear, L., Yarnell, L., & Feng, M. (2020). Identifying gaps in use of and research on adaptive learning systems. In H. Lane, S. Zvacek, & J. Uhomoibhi (Eds.), *CSEDU, Vol 1* (pp. 118-124). [† Co-first Author] [Book Chapter] [dblp index]
- [11] Tong, R.*†, **Wang, S.***†, McBride, E.†, Kelly, H.†, & Cui, W.† (2020). Data, mark of a new era. In: Burgos, D. (Ed.) *Radical Solutions & Learning Analytics: Personalised Learning and Teaching through Big Data*. Springer. [† Co-first Author] [Book Chapter]
- [10] **Wang, S.*,** Feng, M., Bienkowski, M., Christensen, C. & Cui, W. (2019). Learning from an adaptive learning system: Student profiling among middle school students. In H. Lane, S. Zvacek, & J. Uhomoibhi (Eds.), *CSEDU*, *Vol 1* (pp. 78-84). [Book Chapter] [dblp index]
- [9] Feng, M.*, Cui, W., & Wang, S. (2018). Adaptive learning goes to China. In C. P. Rosé, R. Martínez-Maldonado, H. U. Hoppe, R. Luckin, M. Mavrikis, K. Porayska-Pomsta, B. McLaren, & B. du Boulay (Eds.), AIED, Vol 10948 (pp. 89-93). Cham, Switzerland: Springer. [Book Chapter] [dblp index]
- [8] Lewis, S., Lindgren, R.*, **Wang, S.,** & Pea, R. (2018). Learning with media: harnessing viewpoint and motion to generate fields of potential action. *Journal of Media Psychology: Theories, Methods, and Applications, 31*(3), 128-136. [SSCI, Q3]

- [7] Summers, R.*, **Wang, S.**, Abd-El-Khalick, F., & Said, Z. (2018). Comparing Likert scale functionality across culturally and linguistically diverse groups in science education research: An illustration using Qatari students' responses to an attitude toward science survey. *International Journal of Science and Mathematics Education*, 17, 885-903. [SSCI, Q3]
- [6] Perry, M.*, **Wang, S.,** McConney, M., & Mingle, L. (2017). Discourse structure in Chinese and U.S. elementary fractions lessons. In E. Galindo & J. Newton (Eds.), *Proceedings of the 39th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (p. 1261). Indianapolis, IN: Hoosier Association of Mathematics Teacher Educators.
- [5] Israel, M.*, **Wang, S.,** & Marino, M. (2016). A multilevel analysis of diverse learners playing science video games: Interactions between gaming features, learning disability status, reading proficiency, and gender. *Journal of Research in Science Teaching*, 53, 324-345. [SSCI, Q1]
- [4] Lindgren, R.*, Tscholl, M., **Wang, S.,** & Johnson, E. (2016). Enhancing learning and engagement through embodied interaction with a mixed reality simulation. *Computers & Education*, 95, 174-187. [SSCI, Q1]
- [3] Said, Z., Summers, R.*, Abd-El-Khalick, F., & Wang, S. (2016). Attitudes toward science among Grades 3 through 12 Arab students in Qatar: Findings from a cross-sectional national study. *International Journal of Science Education*, 38(4), 621-643. [SSCI, Q2]
- [2] Abd-El-Khalick, F.*, Summers, R., Said, Z., **Wang, S.,** & Culbertson, M. (2015). Development and large-scale validation of an instrument to assess Arabic speaking students' attitudes toward science. *International Journal of Science Education*, *37*(16), 2637-2663. [SSCI, Q2]
- [1] Rodkin, P.*, Hanish, L.‡, **Wang, S.**‡, & Logis, H. (2014). Why the bully/victim relationship is so pernicious: a gendered perspective on power and animosity among bullies and their victims. *Development and Psychopathology*, 26(3), 689-704. [SSCI, Q1] [‡ Co-second author]

Selected Research Reports

- [7] Boyce, J., Wei, X., & Wang, S. (2019). ST Math: Nonregulatory ESSA standards evidence review & What Works Clearinghouse standards review. Menlo Park, CA: SRI International.
- [6] Griffiths, R., Boyce, J., Wang, S., & Wetzel, T. (2018). *Quasi-experimental study of Mastering Chemistry: Ohio State University*. Menlo Park, CA: SRI International.

- [5] Griffiths, R., Boyce, J., Wang, S., & Wetzel, T. (2018). Study of Mastering Chemistry at selective research university. Menlo Park, CA: SRI International.
- [4] Griffiths, R., Gardner, S., Lundh, P., Shear, L., Ball, A., Mislevy, J., **Wang, S.,** Desrochers, D., & Staisloff, R. (2018). *Participant experiences and financial impacts: Findings from year 2 of achieving the dream's OER degree initiative*. Menlo Park, CA: SRI International.
- [3] House, A., Means, B., Peters Hinton, V., Boyce, J., Wetzel, T., & Wang, S. (2018). *Next generation courseware challenge evaluation*. Menlo Park, CA: SRI International.
- [2] Griffiths, R., Mislevy, J., **Wang, S.,** Shear, L., Mitchell, N., Bloom, M., Staisloff, R., Desrochers, D. (2017). *Launching OER degree pathways: An early snapshot of achieving the dream's OER degree initiative and emerging lessons*. Menlo Park, CA: SRI International.
- [1] Murphy, R., Bienkowski, M., Bhanot, R., **Wang, S.,** Wetzel, T., House, A., Leones, T., Van Brunt, J. (2017). *Evaluating digital learning for adult basic literacy and numeracy*. Menlo Park, CA: SRI International.

<u>Selected Peer-reviewed Conference Presentations (* Corresponding Author)</u>

- [21] Wang, S.* (2022, October). 混合教学在法律研究生学位项目中的实证研究. 第八届全国教育实证研究论坛,中国上海.
- [20] Wang, S.* (2021, October). 对于开放教育资源学位的评价. 第七届全国教育实证研究论坛,中国上海.
- [19] Griffiths, R., Mislevy, J., & Wang, S.* (2021, April). *Impacts of an open education resource degree initiative on college student outcomes*. American Educational Research Association (AERA) Annual Conference, Online.
- [18] **Wang, S.*** (2020, December). *When is adaptive learning effective learning?* Invited to present at the 4th Global Summit on Artificial Intelligence and Big Data in Education, Beijing, China, and Online.
- [17] **Wang, S.*** (2020, November). *Personalised and adaptive learning*. Invited to present at UNIR and Birzeit University, Online.
- [16] **Wang, S.*,** Xu, Y., Christensen, C., Cui, W., Tong, R., Thai, K., Ball, A., Shear, L. (2020, April). *Learning mathematics with an adaptive system: Relationships between student characteristics, system usability, and student motivation*. American Educational Research Association (AERA) Annual Conference, Online.

- [15] Wang, S.* (2019, November). *Mathematics across cultures: a systemic functional linguistics approach*. Paper presented at the Text Linguistics Conference, Qingdao, China.
- [14] Wang, S.*, Xu, Y., Bienkowski, M., Cui, W., Thai, K., & Tong, R. (2019, May). Examining Chinese middle school students' motivation using the reduced instructional materials motivation survey (RIMMS): A validation study in the education technology setting. Paper presented at the International conference on Artificial Intelligence and Adaptive Education (AIAED), Beijing, China.
- [13] Gardner, S.*, Griffiths, R., Mislevy, J., Shear, L., **Wang, S.,** & Ball, A. (2019, April). *Open educational resources degree initiative student survey: Methods and findings.* Paper presented at the American Educational Research Association (AERA) Annual Conference, Toronto, Ontario.
- [12] Summers, R.*, Hutchison, A., & **Wang, S.** (2019, April). *Exploring students' intentions to engage with science: A side-by-side comparison of two theoretical models.* Paper presented at the National Association for Research in Science Teaching (NARST) Annual Conference, Baltimore, MD.
- [11] Wang, S.*, Bienkowski, M., Cui, W., Feng, M., Pei, Y., & Yin, T. (2019, April). *Putting technology to the test: Efficacy studies of an adaptive system in China*. Paper presented at the American Educational Research Association (AERA) Annual Conference, Toronto, Ontario.
- [10] Wang, S.*, & Yin, T. (2019, February). How good is good enough? Learning from rigorous evaluations of an AI-powered education system. Presented at the DeveloperWeek, San Francisco, CA.
- [9] Wang, S.*, & Perry, M. (2018, July). A Quantitative Approach to Understand Classroom Discourse: Hierarchical Generalized Linear Modeling of Conjunctions in Mathematics Lessons. Poster presented at the 45th International Systemic Functional Congress (ISFC), Boston, MA.
- [8] Griffiths, R.*, Christensen, C., & Wang, S. (2018, April). *An Evaluation of a First-of its-Kind Hybrid Law Program*. Paper presented at the American Educational Research Association (AERA) Annual Conference, NYC, NY.
- [7] Wang, S.*, & Perry, M. (2016, April). Conjunction is more than just a language unit: A comparative study of conjunctions in U.S. and Chinese mathematical lessons. Paper presented at the American Educational Research Association (AERA) Annual Conference, Washington, D.C.
- [6] Wang, S.* (2015, November). Understanding communicative features in mathematics learning differences between U.S. and China through analyses of conjunctions. Invited to present at the College of Education Mathematics Education Talks. University of Illinois, Urbana-

- Champaign, IL.
- [5] Lindgren, R.*, Tscholl, M., Wang, S., & Johnson, E. (2015, April). Enhancing learning and engagement through full-body interactions with an immersive science simulation. Paper presented at the American Educational Research Association (AERA) Annual Conference, Chicago, IL.
- [4] Rodkin, P.*, **Wang, S.**, Logis, H.*, & Hanish, L. (2014, July). *Popularity and aggression differences in bully-victim dyads*. Paper presented at the International Society for the Study of Behavioral Development (ISSBD) Biennial Conference, Shanghai, China.
- [3] Israel, M.*, Wang, S., Marino, M., & Basham, J. (2014, April). *Diverse learners playing science video games*. Paper presented at the American Educational Research Association (AERA) Annual Conference, Philadelphia, PA.
- [2] Johnson, E.*, Lindgren, R., Tscholl, M., & Wang, S. (2014, April). *Metacognitive scaffolding effects on conceptual learning in a whole-body interactive simulation environment.* Paper presented at the American Educational Research Association (AERA) Annual Conference, Philadelphia, PA.
- [1] Wang, S.*, Mingle, L. A., McConney, M., & Perry, M. (2011, April). *Mathematics across cultures: Teacher-facilitated horizontal discourse in Chinese and U.S. Mathematics lessons.* Paper presented at the American Educational Research Association (AERA) Annual Conference, New Orleans, LA.

Media Coverage and Mentions

- "Breaking language barriers: supporting non-native English-speaking students." *Times Higher Education (THE)*. 2022, December.
- "Learning futures that are adaptive to your specific needs." Thrive Global. 2021, June.
- "Adopting open educational resources can help students. But it takes time, money and effort." *EdSurge*. 2020, February.
- "Squirrel Ai Learning by Yixue Group gives a thesis presentation at the AERA Education Summit on innovative educational and learning styles." *PR Newswire*. 2019, June.
- "To build a great time for technology developers." *China Daily; Consumption Daily; PR Newswire*. 2019, April.
- "Creating a 'home' for fellow Illini." Illinois College of Education News. 2018, August.
- "'MEteor' teaches students about astrophysics." U.S. National Science Foundation Multimedia Gallery. 2016, November.

- "Embodied learning, physics & 7th graders." *U.S. National Science Foundation Homepage*. 2016, April.
- "Seventh-graders learn astrophysics through mixed-reality computer simulation." *Phys.org.* 2016, March.
- "Seventh-graders learn astrophysics through mixed-reality computer simulation." *Illinois News Bureau*. 2016, March.

Professional Service

Proposal Reviewer – National Level

U.S. National Science Foundation (NSF) Proposal Review Panel 美国国家自然科学基金评审

Guest Editor

Frontiers in Psychology [SSCI]: Rigorous and High-Quality Efficacy Studies of Educational Technology Interventions

Professional Organization Chair

IEEE Chair for Recommended Practices for Evaluation of Adaptive Instructional Systems (IEEE P2247.3TM)

Conference Session Chair

教育技术的评价与测量的实证研究. 第八届全国教育实证研究论坛 (FEER, 2022)

高等教育评价与测量的实证研究. 第七届全国教育实证研究论坛 (FEER, 2021)

Quantitative and Mixed-Method Studies in Mathematics Education Session, American Educational Research Association Annual Conference (AERA, 2021)

Evaluation and Assessment in Higher Education Session, Seventh Forum on Empirical Education Research (EER, 2021)

Research on Evaluation Session, American Educational Research Association Annual Conference (AERA, 2021)

Technology and Mathematics Session, American Educational Research Association Annual Conference (AERA, 2020)

Artificial Intelligence Session, International Conference on Computer Supported Education (CSEDU, 2020)

Journal Reviewer

Applied Psychological Measurement (APM)
Educational Data Mining (EDM)
Educational Studies
Educational Studies in Mathematics

Frontiers in Education
Frontiers in Psychology
International Journal of Science and Mathematics Education (IJSME)
International Journal of Science Education (IJSE)
International Journal of STEM Education
Journal of Computer Assisted Learning
Journal of Research in Science Teaching (JRST)
Mathematics
PLOS One

Conference Reviewer

American Educational Research Association Annual Conference (AERA) Artificial Intelligence in Education International Conference (AIED) International Conference on Computer Supported Education (CSEDU)

Book Proposal Reviewer

Cambridge University Press Springer