Chih-Pu Dai, Ph.D.

Assistant Professor of Learning Technologies and Performance Systems
Department of Educational Administration and Human Resource Development
College of Education & Human Development, Texas A&M University
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Education

2023 **Ph.D. in Instructional Systems and Learning Technologies**,
Department of Educational Psychology and Learning Systems,
College of Education, Florida State University, Tallahassee, FL

2022 **Graduate Certificate in Measurement and Statistics**,
Department of Educational Psychology and Learning Systems,
College of Education, Florida State University, Tallahassee, FL

Research Interest

My inter- and trans-disciplinary research focuses on Artificial Intelligence (AI) in education, AI literacy, and AI education. Specifically, I design and study inclusive and advanced learning technologies to support diverse learners. This includes integrating AI into Extended Reality (XR), Game-Based Learning, and Simulation-Based Learning Environments for teaching, learning, and human development.

Academic Appointments

Aug, 2025- **Assistant Professor of Learning Technologies and Performance Systems (LTPS),** Department of Educational Administration and Human Resource Development, College of Education & Human Development, Texas A&M University, College Station, TX

Aug, 2023-Jul, 2025 **Assistant Professor, Learning Design and Technology**
Department of Learning Design and Technology (LTEC),
College of Education, University of Hawai'i at Mānoa, Honolulu, HI
Graduate Faculty Status since Fall, 2023 (Ph.D.), Fall, 2024 (Ed.D.)
Research, Teaching, Service
Graduate Certificate in Online Learning and Teaching (COLT)
Program Coordinator since Fall, 2024-Summer, 2025

Refereed Journal Articles

[J17] Ke, F., West, L., **Dai, C-P.**, Pan, Y., & Xu, J. (2025). Teacher Learning with and about Digital Mathematical Task Design. *Technology, Knowledge and Learning*. https://doi.org/10.1007/s10758-025-09878-y [ESCI, Impact Factor: 3.5]

[J16] Caskurlu, S., Ocak, C., & **Dai, C-P.** (2025). The Scope of Multimodal Learning Analytics Research in K-8: A Systematic Review. *Journal of Learning Analytics*, 1-13. https://doi.org/10.18608/jla.2025.8505 [ESCI, Impact Factor: 2.9, Quartile: Q1, Open Access].

[J15] Zhang, N., Ke, F., **Dai, C-P.,** Southerland, S. A., Yuan, X. (2025). Seeking to support preservice teachers' responsive teaching: leveraging artificial intelligence-supported virtual simulation. *British Journal of Educational Technology, 56*(3), 1148-1169. http://doi.org/10.1111/bjet.13522 [SSCI]

[J14] Ke, F., **Dai, C-P.,** & West, L. (2024). Mathematical experience in game-based problem solving. *Journal of Computer Assisted Learning, 40*(3), 1083-1097. https://doi.org/10.1111/jcal.12938 [SSCI]

[J13] Ke, F., **Dai, C-P.,** West., L., Pan, Y., & Xu, J. (2024). Using mathematizing supports for applied problem solving in a game-based learning environment. *Journal of Educational Computing Research, 62*(2), 468-500. https://doi.org/10.1177/07356331231206990 [SSCI]

[J12] **Dai, C-P.,** Ke, F., Pan, Y., Moon, J., & Liu, Z. (2024). Effects of artificial intelligence-powered virtual agents on learning outcomes in simulation-based learning: A meta-analysis. *Educational Psychology Review, 36,* Article 31, 1-37. https://doi.org/10.1007/s10648-024-09855-4 [SSCI] (Impact factor: 10.1 (2023); ranked number 2 among a combination of 809 journals in Education and Educational Research/Psychology, Educational in SSCI index)

[J11] **Dai, C-P.** (2023). Designing Learning Support for Simulation-Based Preservice Teacher Learning with Artificial Intelligence-Powered Virtual Agents. *The International Journal for Educational Media and Technology, 17*(2), 31-39. [Invitation only]

[J10] **Dai, C-P.,** Ke, F., Dai, Z., & Pachman, M. (2023). Improving teaching practices via virtual reality-supported simulation-based learning: Scenario design and the duration of implementation. *British Journal of Educational Technology, 54*(4), 836-856. https://doi.org/10.1111/bjet.13296 [SSCI]

[J09] **Dai, C-P.,** Ke, F., Pan, Y., & Liu, Y. (2023). Exploring students' learning support use in digital game-based math learning: A mixed-methods approach using machine learning and multi-cases study. *Computers & Education*, *194,* 104698. https://doi.org/10.1016/j.compedu.2022.104698 [SSCI]

[J08] Pan, Y. Ke, F., & **Dai, C-P.** (2023). Patterns of using multimodal external representations in digital game-based learning. *Journal of Educational Computing Research, 60*(8), 1918-1941. https://doi.org/10.1177/07356331221087771 [SSCI]

[J07] **Dai, C-P.** & Ke, F. (2022). Educational applications of artificial intelligence in simulation-based learning: A systematic mapping review. *Computers & Education: Artificial Intelligence, 3,* 100087. https://doi.org/10.1016/j.caeai.2022.100087 [Scopus-indexed, DOAJ-indexed]

[J06] **Dai, C-P.**, Ke, F., & Pan, Y. (2022). Narrative-supported math problem solving in digital game-based learning. *Educational Technology Research & Development, 70*(4), 1261-1281. https://doi.org/10.1007/s11423-022-10129-5 [SSCI]

[J05] Kuba, R., Rahimi, S., Smith, G., Shute, V. J. & **Dai, C-P.** (2021). Using the first principles of instruction and multimedia learning principles to design and develop in-game learning support videos. *Educational Technology Research & Development, 69*(2), 917-943. https://doi.org/10.1007/s11423-021-09994-3 [SSCI]

[J04] Rahimi, S., Shute. V. J., Kuba, R., **Dai, C-P.,** Yang, X., Smith, G. & Alonso-Fernandez, C., (2021). The use and effects of incentive systems on learning and performance in educational games. *Computers & Education, 165,* 104135. https://doi.org/10.1016/j.compedu.2021.104135 [SSCI]

[J03] Shute, V. J., Rahimi S., Smith, G., Ke, F., Almond, R., **Dai, C-P**, Kuba, R., Liu, Z., Yang, X., & Sun, C. (2021). Maximizing learning without sacrificing the fun: Stealth assessment, adaptivity, and learning supports in educational games. *Journal of Computer Assisted Learning, 37*(1), 127-141. https://doi.org/10.1111/jcal.12473 [SSCI]
*Wiley (the publisher) recognized top cited article in 2020-2021 and 2021-2022.

[J02] Shute, V. J., Smith, G., Kuba, R., **Dai, C-P.,** Rahimi, S., Liu, Z., & Almond, R. G. (2021). The design, development, and testing of learning supports for the Physics Playground game. *International Journal of Artificial Intelligence in Education, 31*, 357-379. https://doi.org/10.1007/s40593-020-00196-1 [ESCI]

[J01] Liu, Z., Moon, J., Kim. B., & **Dai, C-P.** (2020). Integrating adaptivity in educational games: a combined bibliometric analysis and meta-analysis review. *Educational Technology Research & Development, 68*(4), 1931-1959. https://doi.org/10.1007/s11423-020-09791-4 [SSCI]

Refereed Book Chapters

[Ch04] **Dai, C-P.** (2024). Applying machine learning to augment the design and assessment of immersive learning experience. In M. S. Khine (Ed.). *Machine Learning in Educational Sciences: Approaches, Applications and Advances* (pp. 245-264). Springer. https://doi.org/10.1007/978-981-99-9379-6_12

[Ch03] Smith, G., Shute, V., Rahimi, S., **Dai, C-P.** & Kuba, R. (2023). Stealth assessment and digital learning game design. In M. McCreery, & S. K. Krach (Eds.), *Games as Stealth Assessment* (pp. 81-100). IGI Global. https://doi.org/10.4018/979-8-3693-0568-3.ch004

[Ch02] Dai, Z., Ke, F., **Dai, C-P.**, Pachman., M., & Yuan, X. (2021). Role-play in virtual reality: A teaching training design case using OpenSimulator. In G. Akcayir, & C. D. Epp (Eds.), *Designing, Deploying, and Evaluating Virtual and Augmented Reality in Education* (pp.143-163). Hershey, PA: IGI Global https://doi.org/10.4018/978-1-7998-5043-4.ch007

[Ch01] Ke, F., Dai, Z., **Dai, C-P.**, Pachman, M., Chaulagain, R., & Yuan, X. (2020). Designing virtual agents for simulation-based learning in virtual reality. In R. Zheng (Ed.), *Cognitive and Affective Perspectives on Immersive Technology in Education* (pp. 151-170). Hershey, PA: IGI Global https://doi.org/10.4018/978-1-7998-3250-8.ch008

Refereed Conference Proceedings

[C28] Zhang, N., Ke, F., **Dai, C-P.,** & Barrett, A. J. (2025). Examining how in-the-moment interpretations of student disciplinary thinking and emotions support responsive teaching: A study in AI-supported simulation. *Proceedings of International Conference of the Learning Sciences (ICLS)*. Helsinki, Finland.

[C27] Nuder, A.[#] & **Dai, C-P.** (2025). Cultivating Artificial Intelligence Literacy in Computer Science Education: A Systematic Review. *Proceedings of International Conference of the Learning Sciences (ICLS)*. Helsinki, Finland.
[+]This work was also presented locally: *Developing AI Literacy in Computer Science Education: Challenges, Strategies, and Prospects* at Graduate Student Research Symposium (GSRS) 2025, UH Mānoa College of Education

[C26] **Dai, C-P.,** Ke, F., Zhang, N., & Barrett, A. J. (2025). Experiencing Teaching in Artificial Intelligence-supported Virtual Reality Simulations: Unpacking Engagement. *Proceedings of International Conference of the Learning Sciences (ICLS)*. Helsinki, Finland.

[C25] Barrett, A., Ke, F., Zhang, N., **Dai, C.-P.,** Bhowmik, S. & Yuan, X. (2025). Pattern analysis of ambitious science talk between preservice teachers and AI-powered student agents. *The 15th International Learning Analytics & Knowledge Conference (LAK25)*, Dublin, Ireland.

[C24] Bhowmik, S., West. L., Barrett, A., Zhang N., **Dai, C-P.,** Sokolikj, Z., Southerland, S. A., Yuan, X., & Ke, F. (2024). Evaluation of an LLM-Powered Student Agent for Teacher Training. In R. Ferreira Mello, N. Rummel, I. Jivet, G. Pishtari, J. A. Ruipérez Valiente (Eds). *Technology Enhanced Learning for Inclusive and Equitable Quality Education: 19th European Conference on*

Technology Enhanced Learning, EC-TEL 2024 Krems, Austria, September 16–20, 2024 Proceedings, Part II. (pp. 68-74). Springer. https://doi.org/10.1007/978-3-031-72312-4_7

[C23] **Dai, C-P.,** Ke, F., Zhang, N. Southerland, S. A., Barrett, A., Bhowmik, S., West, L., & Yuan, X. (2024). Preservice Teacher Learning in Virtual Reality Simulation with Artificial Intelligence-Powered Virtual Students: Emotions and Teacher Talk Patterns. In R. Lindgren, A. Tutaleni, E. A. Kyza, C-K., Looi, D. T. Keifert, E. Suárez (Eds). *Proceedings of International Conference of the Learning Sciences (ICLS).* (pp. 1501-1504). Buffalo, NY: International Society of the Learning Sciences. https://repository.isls.org/bitstream/1/10616/1/ICLS2024_1051-1054.pdf

[C22] Zhang, N., Ke, F., **Dai, C-P.,** Southerland, S. A., Barrett, A., Bhowmik, S., West, L., Yuan, X. (2024). Exploring Preservice Teachers' Perceptions and Experiences of Teaching AI Students in Virtual Simulations. In R. Lindgren, A. Tutaleni, E. A. Kyza, C-K., Looi, D. T. Keifert, E. Suárez (Eds). *Proceedings of International Conference of the Learning Sciences (ICLS).* (pp. 2417-2418). Buffalo, NY: International Society of the Learning Sciences. https://repository.isls.org/bitstream/1/11045/1/ICLS2024_2417-2418.pdf

[C21] Zhang, N., Ke, F., **Dai, C-P.,** Barrett, A. (2024). Supporting Preservice Teachers' Responsive Teaching in AI-Integrated Simulations. In R. Lindgren, A. Tutaleni, E. A. Kyza, C-K., Looi, D. T. Keifert, E. Suárez (Eds). *Proceedings of International Conference of the Learning Sciences (ICLS).* (pp. 2051-2052). Buffalo, NY: International Society of the Learning Sciences. https://repository.isls.org/bitstream/1/10858/1/ICLS2024_2051-2052.pdf

[C20] Barrett, A., Ke, F., Zhang, N. & **Dai, C.-P.** (2024). Comparing the science talk of AI and human students. In R. Lindgren, A. Tutaleni, E. A. Kyza, C-K., Looi, D. T. Keifert, E. Suárez (Eds). *Proceedings of International Conference of the Learning Sciences (ICLS).* (pp. 2073-2074). Buffalo, NY: International Society of the Learning Sciences. https://repository.isls.org/bitstream/1/10869/1/ICLS2024_2073-2074.pdf

[C19] **Dai, C-P.,** Ke, F., Zhang, N., Barrett, A., West, L., Bhowmik, S., Southerland, S. A., & Yuan, X. (2024). Designing Conversational Agents to Support Student Teacher Learning in Virtual Reality Simulation: A Case Study. In F. Mueller, P. Kyburz, J. R. Williamson, C. Sas, M. L. Wilson, P. T. Dugas, & I. Shklovski. (Eds.). *CHI EA' 24: Extended Abstracts of the 2024 CHI Conference on Human Factors in Computing Systems,* Article No.: 513 (pp. 1-8). Honolulu, HI. [Track acceptance rate: 24%; overall acceptance rate: 26%] https://doi.org/10.1145/3613905.3637145

[C18] Barrett, A., Ke, F., **Dai, C-P.,** West, L., Bhowmik, S., Zhang, N. (2023). AI-integrated virtual students for teacher training: Comparing simulation-based classroom dialogue with the real thing. In Blikstein, P., Van Aalst, J., Kizito, R., & Brennan, K., (Eds.). *Proceedings of 17th International Conference of the Learning Sciences (ICLS) 2023,* (pp. 1797-1798). Montreal, Canada: International Society of the Learning Sciences. https://repository.isls.org/bitstream/1/10025/1/ICLS2023_1797-1798.pdf

[C17] Pan, Y., Ke, F., **Dai, C-P.**, West, L., & Xu, J. (2023). A design-based training workshop on teachers' math knowledge for teaching. In Blikstein, P., Van Aalst, J., Kizito, R., & Brennan, K., (Eds.). In Blikstein, P., Van Aalst, J., Kizito, R., & Brennan, K., (Eds.). *Proceedings of 17th International Conference of the Learning Sciences (ICLS) 2023*. (pp. 1891-1892). Montreal, Canada: International Society of the Learning Sciences. https://repository.isls.org/bitstream/1/10073/1/ICLS2023_1891-1892.pdf

[C16] **Dai, C-P.,** Ke, F., & Pan. Y. (2023). Exploring 6th to 8th graders' math play processes and strategies. In Blikstein, P., Van Aalst, J., Kizito, R., & Brennan, K., (Eds.). *Proceedings of 17th International Conference of the Learning Sciences (ICLS) 2023*. (pp. 1855-1856). Montreal, Canada: International Society of the Learning Sciences.

https://repository.isls.org/bitstream/1/10054/1/ICLS2023_1855-1856.pdf

[C14] Bhowmik, S., Barrett, A., Ke, F., Yuan, X., Southerland, S., **Dai, C-P.**, West, L., & Dai, Z. (2022). Simulating students: An AI chatbot for teacher training. In Chinn, C., Tan, E., Chan, C., & Kali, Y. (Eds.). *Proceedings of the 16th International Conference of the Learning Sciences (ICLS) 2022* (pp. 1972-1973). Hiroshima, Japan: International Society of the Learning Sciences. https://repository.isls.org/bitstream/1/8669/1/ICLS2022_1972-1973.pdf

[C13] Pan, Y., Ke, F., & **Dai, C-P.** (2022). Game design experience for teachers' design thinking in participatory design culture. In Chinn, C., Tan, E., Chan, C., & Kali, Y. (Eds.). *Proceedings of the 16th International Conference of the Learning Sciences (ICLS) 2022* (pp. 1922-1923). Hiroshima, Japan: International Society of the Learning Sciences. https://repository.isls.org/bitstream/1/8643/1/ICLS2022_1922-1923.pdf

[C12] **Dai, C-P.,** Ke, F., & Pan, Y. (2022). How learners use in-game learning support in digital game-based math learning? In Chinn, C., Tan, E., Chan, C., & Kali, Y. (Eds.). *Proceedings of the 16th International Conference of the Learning Sciences (ICLS) 2022* (pp. 1870-1871). Hiroshima, Japan: International Society of the Learning Sciences. https://repository.isls.org/bitstream/1/8616/1/ICLS2022_1870-1871.pdf

[C11] **Dai, C-P.** (2021). Exploring designs of AI-integrated pedagogical agents for teacher training in virtual reality. In *Proceedings of the 2021 Learning Sciences Graduate Student Conference (LSGSC)* (pp. 22-23). Champaign, IL: the University of Illinois at Urbana-Champaign.

[C10] **Dai, C-P.,** Ke, F., Dai, Z., West, L., Bhowmik, S., & Yuan, X. (2021). Designing artificial intelligence (AI) in virtual humans for simulation-based training with graduate teaching assistants. In de Vries, E., Hod, Y., & Ahn J. (Eds.). *Proceedings of the 15th International Conference of the Learning Sciences - ICLS 2021* (pp. 1101-1102). Bochum, Germany: International Society of the Learning Sciences. https://repository.isls.org/bitstream/1/7418/1/1101-1102.pdf

[C09] **Dai, C-P.** & Ke, F. (2021). Designing narratives in multimodal representations for game-based math learning and problem solving. In de Vries, E., Hod, Y., & Ahn J. (Eds.). *Proceedings of the 15th International Conference of the Learning Sciences - ICLS 2021* (pp. 909-910). Bochum, Germany: International Society of the Learning Sciences. https://repository.isls.org/bitstream/1/7615/1/909-910.pdf

[C08] **Dai, C-P.,** Ke, F., & Pan, Y. (2021). Participatory design of game-based math learning platform: Teacher-researcher negotiation and collaboration. In de Vries, E., Hod, Y., & Ahn J. (Eds.). *Proceedings of the 15th International Conference of the Learning Sciences - ICLS 2021* (pp. 907-908). Bochum, Germany: International Society of the Learning Sciences. https://repository.isls.org/bitstream/1/7614/1/907-908.pdf

[C07] **Dai, C-P.,** Ke, F., Pan, Y., & Dai, Z. (2020). Work-in-Progress—Learners' interaction with task narratives for math problem-solving in game-based learning. In Economou, D., Klippel, A., Dodds, H., Peña-Rios, A., Lee, M. J. W., Beck, D., Pirker, J., Dengel, A., Peres, T. M., & Richter, J. (Eds.) *Immersive Learning Research Network. Proceedings of 6th International Conference, iLRN 2020, Online, June 21-25, 2020. Immersive Learning Research Network.* (pp. 299-301)(IEEE). http://dx.doi.org/10.23919/iLRN47897.2020.9155180

[C06] Pan, Y., Ke, F., Uysal, S., Clark, M. K., & **Dai, C-P.** (2020). Learning mathematics from history: A case study on learning support design with history of mathematics in GBL. In Gresalfi, M. and Horn, I. S. (Eds.) *The Interdisciplinarity of the Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020, Volume 3.* (pp. 1745-1746) Nashville, Tennessee: International Society of the Learning Sciences. https://repository.isls.org/handle/1/6421

[C05] **Dai, C-P.**, Ke, F., Dai, Z., & West, L. (2020). Advocating facilitators' interdisciplinary learning with computer science teaching assistants in a virtual reality environment. In Gresalfi, M. and Horn, I. S. (Eds.) *The Interdisciplinarity of the Learning Sciences, 14th International Conference of the*

Learning Sciences (ICLS) 2020, Volume 4. (pp. 2333-2334). Nashville, Tennessee: International Society of the Learning Sciences. https://repository.isls.org//handle/1/6546

[C04] Dai, Z., Ke, F., & **Dai, C-P.** (2020). Exploring learner behavioral patterns in virtual-reality-based role-playing for teaching training. In Gresalfi, M. and Horn, I. S. (Eds.). *The Interdisciplinarity of the Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020, Volume 4*. (pp. 2403-2404). Nashville, Tennessee: International Society of the Learning Sciences. https://repository.isls.org/bitstream/1/6582/1/2403-2404.pdf

[C03] **Dai, C-P.** (2017). An exploratory study on integrating virtual reality video into L2 Chinese festival teaching. In J., Colpaert, A., Aerts, R., Kern, M., Kaiser (Eds.), *Proceedings of the XVIIIth International CALL Research Conference: CALL in Context* (pp.191-200). Berkeley, CA: University of California. ISBN 9789057285509

[C02] **Dai, C-P.** (2017). A narrative inquiry into Taiwanese grade school teachers' practice of Chinese as a foreign language in the Philippines. In J., Mena, A., García Valcarcel Muñoz Repiso, F., José García Peñalvo, M., Martín del Pozo (Eds.), *Search and research: Teacher education for contemporary contexts* (pp.169-178). Salamanca, Spain: Ediciones Universidad de Salamanca. ISBN 978-84-9012-769-8

[C01] **Dai, C-P.** (2013). An investigation on Thai learners' acquisition of "Dou" in Mandarin Chinese. *Proceedings of 2013 International Conference of Teaching Chinese as a Second Language*. (pp.861-868). Kaohsiung, Taiwan: Wenzao Ursuline University of Languages. [in Chinese]

Refereed Presentations, Posters, and Roundtables at Conferences

[P68] **Dai, C-P.,** Ke, F., Zhang, N., & Barrett, A. (2025, October). *Revisiting Engagement: Teacher Learning in AI-Enhanced Virtual Reality Simulations.* Concurrent Presentation accepted at Association for Educational Communications & Technology international convention (AECT), 2025, Las Vegas, NV.

[P67] **Dai, C-P.,** Eichelberger, A., & Tanners, A. (2025, October). *Refocusing Learning Experiences for Enhancing Artificial Intelligence Literacy in Undergraduate Students*. Concurrent Presentation accepted at Association for Educational Communications & Technology international convention (AECT), 2025, Las Vegas, NV.

[P66] Nuder., A.# & **Dai, C-P.** (2025, October). The Future of Computer Science Education with Artificial Intelligences Literacy: A Systematic Review. Concurrent Presentation accepted at Association for Educational Communications & Technology international convention (AECT), 2025, Las Vegas, NV.

[P65] Zhang, N., Ke, F., **Dai, C-P.,** & Barrett, A. (2025, April). *In-the-moment interpretation of student reasoning and emotion for responsive teaching: A study on AI-supported simulation*. Paper Session presented at the 2025 AERA Annual Meeting. Denver, CO.

[P64] Barrett, A., Bhowmik, S., West, L., Zhang, N., **Dai, C-P.,** & Yuan, X., (2025, April). *Prompt engineering techniques for consistently relevant math-science conversations with an AI-powered student.* Paper Session presented at the 2025 AERA Annual Meeting. Denver, CO.

[P63] **Dai, C-P.,** Ke, F., & Zhang, N. (2025, April). *Optimizing Learning Support Design: Predictive Links to Teaching Knowledge and Self-Efficacy in AI-Integrated Virtual Reality*. Roundtable Session presented at the 2025 AERA Annual Meeting. Denver, CO.

[P62] Zhang, N., Ke, F., & **Dai, C-P.** (2025, April). *Seeking to support preservice teachers' responsive teaching: Leveraging artificial intelligence-supported virtual simulation*. Poster Session presented at the 2025 AERA Annual Meeting. Denver, CO.

[P61] **Dai, C-P.** (2025, April). *Artificial Intelligence-powered Virtual Agent for Computer Science Education: Current Practices and Research Avenues.* Poster Session accepted at the 2025 AERA Annual

Meeting. Denver, CO.

[P60] **Dai, C-P.** & George, S. A. (2025, March). *Teacher Educators' Insights and Professional Development on Artificial Intelligence in Education*. Paper presented at the 2025 Annual Meeting of the Association of Teacher Educators (ATE). New Orleans, LA.

[P59] **Dai, C-P.** & Nuder, A. (2024, February). *Artificial Intelligence in Computer Science Education: Implications and Practices*. 2025 Hawai'i Computer Science PD Summit. The Office of Curriculum and Instructional Design, Computer Science Program, Hawaii State Department of Education (HIDOE), Waikiki, Honolulu, HI.

[P58] Zhang, N., Ke, F., **Dai, C-P.**, Barrett, A., Southerland, S., West, L., Bhowmik, S., & Yuan, X. (2024, October). *Improving preservice teachers' culturally responsive teaching self-efficacy through artificial intelligence-supported virtual simulation*. Concurrent Presentation presented at Association for Educational Communications & Technology international convention (AECT), 2024. Kansas City, MO. (Selected as "Presidential Session," presenting author).

[P57] **Dai, C-P.,** Ke, F., Zhang, N., Barrett, A., Southerland, S. A., West, L., Bhowmik, S., & Yuan, X. (2024, October). *Teacher Noticing in Virtual Reality Simulation Classrooms: From Human Puppeteer to AI-Powered Virtual Student Agents*. Concurrent Presentation presented at Association for Educational Communications & Technology international convention (AECT), 2024. Kansas City, MO.

[P56] **Dai, C-P.,** Leong, P., & Obae, C. (2024, October). *Toward the Metaverse Integration in Learning Design and Technology Courses: Principles and Guidelines*. Concurrent Presentation presented at Association for Educational Communications & Technology international convention (AECT), 2024. Kansas City, MO.

[P55] Obae, C., Leong, P., & **Dai, C-P.** (2024, September). *Bridging the divide: 3D virtual spaces for hybrid learning in educating future teachers*. EAF 2024 - Teacher Education Days 2024. University of Lapland, Rovaniemi, Finland.

[P54] **Dai, C-P.** (2024, July). *Supporting preservice teacher learning with AI-powered virtual agent in virtual reality simulation*. Thematic Session presented at the 2024 Association of Teacher Educators Summer Conference. Denver, CO.

[P53] **Dai, C-P.** & Ke, F. (2024, April). *The Impacts of Model-Based Support and Artificial-Intelligence-Powered Virtual Agents in Virtual Reality for Preservice Teachers*. Paper Session at the 2024 AERA Annual Meeting. Philadelphia, PA.

[P52] **Dai, C-P.,** Ke, F., Zhang, N., Southerland, S. A., Barrett, A., Bhowmik, S., West, L., & Yuan, X. (2024, April). *Preservice teachers' emotions and ambitious teaching in virtual reality simulation with artificial intelligence-powered virtual humans*. Roundtable session at the 2024 AERA Annual Meeting. Philadelphia, PA.

[P51] Caskurlu, S., Ocak, C., & **Dai, C-P.** (2024, April). *Multimodal Learning Analytics in K-8 Research: A Systematic Review*. Paper session at the 2024 AERA Annual Meeting. Philadelphia, PA.

[P50] Zhang, N., Ke, F., **Dai, C-P.,** Barrett, A., Southerland, S. A., Bhowmik, S., West, L., & Yuan, X. (2024, April). *Understanding preservice teachers' perceptions and experiences in an AI-empowered teaching simulation*. Paper Session at the 2024 AERA Annual Meeting. Philadelphia, PA.

[P49] Barrett, A., Ke, F., **Dai, C-P.,** Zhang, N., Bhowmik, S., West, L., Yuan, X., & Southerland, S. A. (2024, April). *Teacher training in virtual-world simulations: Analyzing pre-service science teacher talk moves with AI-powered student agents*. Roundtable at the 2024 AERA Annual Meeting. Philadelphia, PA.

[P48] LTEC faculty (2024, February). *Change for resiliency: One department's strategies for implementing culturally relevant education with a focus on Asia and the Pacific*. The 4th Southeast Asian Conference on Education (SEACE2024), The International Academic Forum (IAFOR). Chiang Mai,

Thailand.

[P47] West, L., Ke, F., Xu, J., **Dai, C-P.,** & Pan, Y. (2023, October). *Interdisciplinary collaborative design of an adaptive cognitive task planner for game-based math learning*. Concurrent Presentation accepted at Association for Educational Communications & Technology international convention (AECT), 2023. Orlando, FL.

[P46] Pan, Y., Ke, F., **Dai, C-P.,** West, L., & Xu, J. (2023, October). *Developing teachers' knowledge for teaching in a design-based training*. Poster accepted at Association for Educational Communications & Technology international convention (AECT), 2023. Orlando, FL.

[P45] Ocak C., Caskurlu, S., & **Dai, C-P.** (2023, October). *Developing A Checklist as a Guide to Conduct Multimodal Learning Analytics Research*. Concurrent Presentation accepted at Association for Educational Communications & Technology international convention (AECT), 2023. Orlando, FL.

[P44] **Dai, C-P.,** Ke, F., Barrett, A., Zhang, N., West, L., Southerland, S., Bhowmik, S., & Yuan, X. (2023, October). *Classroom dynamics and teaching practices with artificial intelligence virtual students in virtual reality*. Concurrent Presentation accepted at Association for Educational Communications & Technology international convention (AECT), 2023. Orlando, FL.

[P43] Barrett, A., **Dai, C-P.**, West, L., Bhowmik, S., Zhang, N., & Ke, F. (2023, August). *Preservice teacher discourse with AI-integrated virtual students: A look at sentence function.* Presentation presented for the 20th Biennial European Association for Research on Learning and Instruction (EARLI) Conference. Thessaloniki, Greece.

[P42] Pan, Y., Ke, F., & **Dai, C-P.** (2023, May). *Effects of game-based learning supports on students' math performance and perceived game flow*. Virtual Paper Session accepted at the 2023 AERA Annual Meeting. Chicago, IL.

[P41] Pan, Y. & **Dai, C-P.** (2023, May). *Developing conceptual and procedural knowledge for mathematical problem solving in digital game-based learning*. Virtual Paper Session accepted at the 2023 AERA Annual Meeting. Chicago, IL.

[P40] **Dai, C-P.,** Ke, F., Pan, Y., Moon, J., & Liu, Z. (2023, April). *A meta-analysis on the effects of using artificial intelligence-powered virtual agents in simulation-based learning*. Paper Session presented at the 2023 AERA Annual Meeting. Chicago, IL.
*Also presented at the 2023 Marvalene Hughes Research in Education Conference at College of Education, Florida State University, Tallahassee.

[P39] **Dai, C-P.,** Ke, F., Pan, Y., & Liu, Y. (2023, April). *A mixed-methods study exploring learning support use in digital game-based math learning*. Poster presented at the 2023 AERA Annual Meeting. Chicago, IL. https://aera23-aera.ipostersessions.com/Default.aspx?s=EA-C8-5E-31-71-45-7E-9A-2E-BC-1F-94-28-9B-32-EC#

[P38] **Dai, C-P.**, Ke, F., Pan, Y., & Liu, Y. (2022, October). *Cluster analysis of learning support use in digital game-based math learning*. Concurrent session presented at Association for Educational Communications & Technology international convention (AECT), Las Vegas, NV, USA (and online).

[P37] **Dai, C-P.** & Ke, F. (2022, October). *A scoping review on educational applications of artificial intelligence (AI) in simulation-based learning*. Concurrent session presented at Association for Educational Communications & Technology international convention (AECT), Las Vegas, NV, USA (and online).

[P36] **Dai, C-P.**, Ke, F., Southerland, S., Dai, Z., & Zhang, N. (2022, October). *Scenario design in virtual reality with artificial intelligence (AI)-powered virtual agents*. Concurrent session presented at Association for Educational Communications & Technology international convention (AECT), Las Vegas, NV, USA (and online).

[P35] Pan, Y., Ke, F., **Dai, C-P.** (2022, October). *What teachers learn in participatory game design?*. Poster

session presented at Association for Educational Communications & Technology international convention (AECT), Las Vegas, NV, USA (and online).

[P34] Pan, Y., Ke, F., & **Dai, C-P.** (2022, October). *Designing games for effective mathematics learning: Evidence from thirteen years of research*. Poster session presented at Association for Educational Communications & Technology international convention (AECT), Las Vegas, NV, USA (and online).

[P33] Pan, Y., Ke, F., & **Dai, C-P.** (2022, April). *The way of using multimodal external representations in game-based learning*. Poster presented at the 2022 AERA Annual Meeting. San Diego, CA. http://dx.doi.org/10.3102/IP.22.1890579

[P32] **Dai, C-P.**, Ke. F., Pan, Y., Dai, Z. (2022, April). *Narratives for math problem solving and associated gender differences in digital game-based learning*. Poster presented at the 2022 AERA Annual Meeting. San Diego, CA. http://dx.doi.org/10.3102/IP.22.1889053

[P31] Pan, Y., Ke, F., Xu, X., & **Dai, C-P.** (2022, April). *Learning math through gameplay: A systematic review on learning games in mathematical education*. Paper presented at the 2022 AERA Annual Meeting. San Diego, CA.

[P30] **Dai, C-P.,** Ke, F., Dai, Z., West, L., Bhowmik, S., & Yuan, X. (2022, April). *Toward artificial intelligence-integrated pedagogical agents for student instructor training in virtual reality*. Paper presented at the 2022 AERA Annual Meeting. San Diego, CA. http://dx.doi.org/10.3102/IP.22.1889108
*Also presented at the 2022 Marvalene Hughes Research in Education Conference at College of Education, Florida State University, Tallahassee.

[P29] Kuba, R., Xu, J., **Dai, C-P.,** & Ke, F. (2022, April). *Fundamental principles of interaction: Designing user interfaces for adaptive, linear, and free-choice game navigation paths*. Roundtable presented at the 2022 AERA Annual Meeting. San Diego, CA.

[P28] **Dai, C-P.,** Ke, F., & Pan, Y. (2022, January). *Heuristics from teachers for game-based math learning design and implementation*. Poster presented at the National Council of Teachers of Mathematics (NCTM) 2022 Research Conference, Virtual Event.

[P27] **Dai, C-P.** (2021, November). *Conversational agents with artificial intelligence (AI) for learning: Opportunities and challenges*. Poster presented at 2021 Florida Educational Research Association (FERA) 65th Annual Meeting. Tampa, FL.

[P26] **Dai, C-P.,** Ke, F., Pan, Y., & Dai, Z. (2021, November). *Narratives-supported math problem solving in game-based learning*. Concurrent session presented at Association for Educational Communications & Technology international convention (AECT), Chicago, IL + Virtual.

[P25] **Dai, C-P.,** Park, Y., & Mitchell, A. L. (2021, November). *Exploring future instructional designers' perceptions of and practices for online problem-based learning*. Concurrent session presented at Association for Educational Communications & Technology international convention (AECT), Chicago, IL + Virtual.

[P24] **Dai, C.-P.,** Ke, F., West, L., Dai, Z., Bhowmik, S., & Yuan, X. (2021, November). *Artificial intelligence in virtual humans for teaching assistant training: A design and development case study*. Concurrent session presented at Association for Educational Communications & Technology international convention (AECT), Chicago, IL + Virtual.

[P23] Pan, Y., Ke, F., Xu, X., & **Dai, C-P.** (2021, November). *A systematic review of empirical evidence of the learning games in math education*. Poster presented at Association for Educational Communications & Technology international convention (AECT), Chicago, IL + Virtual.

[P22] Ke., F., Dai., Z., **Dai., C-P.,** West., L., & Yuan., X. (2021, April). Mixed reality integrated learning environment for teaching training of STEM teaching assistants. In Symposium *Leveraging Mixed-reality Classroom Simulators for Professional Development to Support Student-centered STEM Learning Environments*. the 2021 National Association for Research in Science Teaching (NARST) Annual International Conference. Orlando, FL. (virtual)

[P21] **Dai, C-P.,** Ke, F., Dai, Z., Pachman, M., West, L., Bhowmik, S., & Yuan, X. (2021, April). *Examining associated factors for effective teaching training in virtual reality: An ordinal logistic regression analysis.* Paper presentation presented at the 2021 Virtual AERA Annual Meeting. Orlando, FL. https://tinyurl.com/2p8292em

[P20] Rahimi, S., Shute, V., Kuba, R., **Dai, C-P.**, Yang, X., Smith, G., & Alonso-Fernandez, C. (2021, April). *Maximizing learning and performance using incentive systems in educational games*. Roundtable presented at the 2021 Virtual AERA Annual Meeting. Orlando, FL.

[P19] **Dai, C-P.** & Ke, F. (2021, April). *Heuristics of task narrative design for problem solving in game-based math learning*. Paper presentation presented at the 2021 Virtual AERA Annual Meeting. Orlando, FL. https://tinyurl.com/ahpscx3k

*Also presented at the 2021 Marvalene Hughes Research in Education Conference at College of Education, Florida State University, Tallahassee.

[P18] Dai, Z., Ke, F., **Dai, C-P.**, Pachman, M., West, L., Bhowmik, S., & Yuan, X. (2021, April). *Using data mining of learner behaviors to inform design of role-play in virtual-reality-based teacher training*. Poster presented at the 2021 Virtual AERA Annual Meeting. Orlando, FL.

[P17] West, L., **Dai, C-P.**, Ke, F., Dai, Z., Pachman, M., Yuan, X., & Bhowmik, S. (2021, April). *Factors impacting reaction time to prompting in virtual teaching training*. Poster presented at the 2021 Virtual AERA Annual Meeting. Orlando, FL.

[P16] West, L., **Dai, C-P.**, & Ke, F. (2021, April). *Teaching ratio and geometry through 3D architectural design and game-based Learning*. Presentation at National Council of Teachers of Mathematics (NCTM) 2021 Virtual Annual Meeting. St. Louis, MO.

[P15] **Dai, C-P.** & Ke, F. (2020, November). *Task narrative design and problem solving in game-based math learning*. Paper presented at 2020 Florida Educational Research Association (FERA) Virtual Forum. FL.

[P14] **Dai, C-P.**, Ke, F., Dai, Z., West, L. (2020, November). *Problem-solving teaching training in a virtual reality learning environment*. Paper presented at 2020 Association for Educational Communications & Technology international convention (AECT), online, Jacksonville, FL.

[P13] Park, Y., Dennen, V., Adolfson, D., & **Dai, C-P.** (2020, November). *A content analysis of social media policy for school districts*. Paper presented at 2020 Association for Educational Communications & Technology international convention (AECT), online, Jacksonville, FL.

[P12] **Dai, C-P.,** Shute, V., Smith, G., Liu, Z., Kuba, R., & Rahimi, S. (2020, November). *Fostering game-based physics learning through game design features.* Paper presented at 2020 Association for Educational Communications & Technology international convention (AECT), online, Jacksonville, FL.

[P11] Kuba, R., Smith, G., Shute, V., **Dai., C-P.,** & Rahimi, S. (2020, November). *Applying multimedia principles in the design and development of learning support videos in game-based learning*. Paper presented at 2020 Association for Educational Communications & Technology international convention (AECT), Online, Jacksonville, FL.

[P10] **Dai, C-P.** (2020, April). *Promoting motivational and cognitive learning processes with game features: A literature review* [Poster Session]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/tc99gdu (Conference Canceled).

*Also accepted at the 2020 Marvalene Hughes Research in Education Conference at College of Education, Florida State University, Tallahassee (Conference Canceled).

[P09] **Dai, C-P.,** Ke, F., & West, L. (2020, April). *Towards meaningful game-based math learning with effective task design*. Poster accepted at 2020 Research Symposium of the National Council of Teachers of Mathematics (NCTM), Chicago, IL. (conference canceled due to COVID-19)

[P08] Dai, Z., Ke, F., **Dai, C-P.,** Pachman, M., & Yuan, X. (2020, March). *Exploring learners' behavioral patterns in a simulation-based teaching training in virtual reality*. Poster accepted at the Society for

Research on Educational Effectiveness (SREE) Spring 2020 conference, Arlington, VA. (conference canceled due to COVID-19)

[P07] **Dai, C-P.,** Park, Y., & Mitchell, A. L. (2019, November). *Future instructional designers' perceptions of online Problem-Based Learning (PBL)*. Paper presented at 2019 Florida Educational Research Association (FERA) 64th annual meeting, St. Petersburg, FL.

[P06] **Dai, C-P.** (2019, October). *What makes a learning game effective?: A literature review of game design elements*. Poster presented at 2019 Association for Educational Communications & Technology international convention (AECT), Las Vegas, NV.

[P05] **Dai, C-P.** (2019, October). *Examining technology integration in Burkina Faso: Inspiration of Taiwanese L2 Chinese teachers' beliefs and practices*. Poster presented at 2019 Association for Educational Communications & Technology international convention (AECT), Las Vegas, NV.

[P04] **Dai, C-P.** & Athittaya, K. (2013, March). *Contrastive Analysis between Thai and Chinese and its implication for CSL/CFL: On adverb "Dou"*. Paper presented at 2013 Conference of Graduate Student of Chinese Language Teaching and Overseas Chinese Education, Chung Yuan Christian University, Taiwan. [in Chinese]

[P03] **Dai, C-P.** & Yan, C.-Y. (2013, March). *A narrative inquiry on team teaching of novice teachers of Chinese as a Second Language*. Paper presented at 2013 Conference of Graduate Student of Chinese Language Teaching and Overseas Chinese Education, Chung Yuan Christian University, Taiwan. [in Chinese]

[P02] **Dai, C-P.** (2013, January). *Thai learners' perceptions of integrating virtual reality video into Chinese festival teaching*. Paper presented at the 5th World Chinese Language Teaching Graduate Students Forum, Xiamen, PR China. [in Chinese]

[P01] Chang, Y. & **Dai, C-P.** (2012, October). *Analysis of teaching material for new immigrants: An example of "Character recognition for adult new immigrants in Taoyuan County I, II"*. Paper presented at 2012 Interdisciplinary Conference of Chinese Language Education, National United University, Taiwan. [in Chinese]

Invited/Selected Presentations, Panels, Symposia, Media Appearance, and Outreach

Dai, C-P. & Nuder, A. (2025, April). *The College of Education Research Institute (CERI): CERI Conversations Research Sharing Event Research Practice Partnership*. College of Education, University of Hawai'i at Mānoa.

Dai, C-P. (2025, June). *Presentation on Generative Artificial Intelligence at Summer institute on Contemporary Asias: Pluralities beyond Areas*. Hosted by Dr. Peter D. Hershock, Asian Studies Development Program/Humane AI Initiative, East-West Center as *part of Dr. Hershock's National Endowment for the Humanities (NEH)* grant project. In *Contemporary Asias: Pluralities beyond Areas*. Honolulu, HI. [Grant Cancelled in April, 2025, PI notified by DOGE: Department of Government Efficiency]

+ My role was one of the Lecturers and Visiting Faculty, see https://www.neh.gov/programinstitutefellowship/contemporary-asias-pluralities-beyond-areas

Dai, C-P., Eichelberger, A., Hattori, M., Hoffman, D., Janakiraman, S., Leong, P., Menchaca, M., & Paek, S. [**LTEC Faculty*, alphabetical order***] (2025, Feburary). *Promoting Cultural Awareness in Artificial Intelligence for Sustainable Education: East-West Collaboration*. [Featured Keynote Plenary Panel]. The 4th Southeast Asian Conference on Education (SEACE), Kuala Lumpur, Malaysia & Online.

Dai, C-P. (2025, January 28). *Leveraging Artificial Intelligence Tools for Enhanced Learning and Productivity*

[Invited Webinar]. The College of Education Alumni Association, University of Hawai'i at Mānoa.

Dai, C-P. (2024, November 04). *Exploring the World of Artificial Intelligence* [Invited Talk in Ms. Lori Kwee's Third Grade Class]. Ala Wai Elementary School, Honolulu, HI.

Dai, C-P. (2024, November 04). *Symposium: Immersive Learning in Virtual Reality with Artificial Intelligence.* Presented at Dai, C-P. (Host), an academic visit by Prof. Yukie Saito (Professor of Global Informatics Department of Chuo University, Japan) and their students. Department of Learning Design and Technology, University of Hawai'i at Mānoa, Honolulu, HI.

McKimmy, P., Grove, J., Oppegaard, B., **Dai, C-P.**, González-Lloret, N., Loza de Siles, E., & Molybog., I. [Panelists]. (2024, October 11). *Faculty Forum: AI in Higher Education*. In Babakhanyan, A. (Host), the **Faculty Puwalu Research Forum**, the Office of the Vice Provost for Research and Scholarship, University of Hawai'i at Mānoa.

Dai, C-P. (2024, August 28). *Immersive Environment and Simulation Technologies for Teacher Education*. In Liu, L. (Host), Kim, M., Pecore, J (Panelists). Invited Share Case event at Division of Emerging Learning Technologies (DELT), Association for Educational Communications and Technology (AECT)

O'Shea, P. (Host). (2024, August 11). The Versatilist with Chih-Pu Dai - Preservice Teacher Learning in Virtual Reality Simulation with Artificial Intelligence-Powered Virtual Students: Emotions and Teacher Talk Patterns. [Audio podcast episode]. In *The Versatilist Podcast* (https://www.podomatic.com/podcasts/versatilist). A podcast supported by the Immersive Learning Research Network (iLRN). https://www.podomatic.com/podcasts/versatilist/episodes/2024-08-11T12_43_16-07_00

Leong, P. & **Dai, C-P.** (2024). *Here Or There (HOT)/hybrid classes at the Learning Design & Technology (LTEC) Department, College of Education, University of Hawaii at Manoa.* The EU Commission's European Digital Education Hub (EDEH).

Dai, C-P. & George, S. (2024, July). Harnessing Artificial Intelligence (AI) to Advocate for Transformative Teaching. [Invited Workshop]. *Association of Teacher Educators: ATE's 2024 Summer Conference*, Denver, CO.

Dai, C-P. (2024, April). *Augmenting Learning with Artificial Intelligence-Powered Virtual Agents in Immersive Learning Environments* [Plenary Session]. 29th Annual Teaching, Colleges & Community Worldwide Online Conference (TCC 2024 Online Conference), TCCHawaii.org, Honolulu, HI.

Zhang, N., Ke, F., **Dai, C-P.,** Southerland, S. A., Barrett, A., Bhowmik, S., West, L., & Yuan X. (2024, April). *Exploring Preservice Teachers' Perceptions and Experiences of Teaching Artificial Intelligence-powered Students in Virtual Simulations*. Student Posters at ISLT@50 Conference, Instructional Systems and Learning Technologies (ISLT) Program, Florida State University, Tallahassee, FL.

Barrett, A., Ke, F., Zhang, N. & **Dai, C-P.** (2024, April). *Ambitious talk move patterns in preservice teacher discourse with AI-integrated student agents*. Student Posters at ISLT@50 Conference, Instructional Systems and Learning Technologies (ISLT) Program, Florida State University, Tallahassee, FL.

Dai, C-P. (2024, April). *Artificial Intelligence and Augmented Learning Design*. Roundtable Discussion selected at ISLT@50 Conference, Instructional Systems and Learning Technologies (ISLT) Program, Florida State University, Tallahassee, FL.

Dai, C-P. (2024, March 28). *Adaptive Learning and Artificial Intelligence as the Future for Personalized Training Paths for Trainees.* In Koohestani, J. (Host). The Champion's Path (https://www.thechampionspath.net/). Retrieved from https://youtu.be/oTw8CVXi8dI

Dai, C-P. (2024, March 06). *How to teach elementary/secondary students to use artificial intelligence?*

[Breakout session]. Waipahu High School Teacher Workshop (AI EmpowerED: Navigating the Future of Teaching). Waipahu High School, Waipahu, HI.

Dai, C-P. (2024, March 06). *Artificial Intelligence in Education* [Keynote address]. Waipahu High School Teacher Workshop (AI EmpowerED: Navigating the Future of Teaching). Waipahu High School, Waipahu, HI.

Dai, C-P., Eichelberger, A., Hoffman, D., Janakiraman, S., Leong, P., & Menchaca, M. [**LTEC Faculty*, alphabetical order***] (2024, February). *Change for Resiliency: One Department's Strategies for Implementing Culturally Relevant Education with a Focus on Asia and the Pacific* [Featured Keynote Plenary Panel]. The 4th Southeast Asian Conference on Education (SEACE), Chiang Mai, Thailand & Online.

Menchaca, M. P., McKimmy, P., Hirata, D., & **Dai, C-P.** (2024, January 04). Practical Approaches to AI in Academia. In Menchaca, M. P. (Chair), *Practical Approaches to AI in Academia* [Keynote Panel Plenary Session]. The International Academic Forum (IAFOR) International Conference on Education in Hawai'i (IICE), and The IAFOR International Conference on Arts & Humanities in Hawai'i (IICAH), Honolulu, HI.

Dai, C-P. (2023, October, 19). In Weston, D. (Host). *A consultation and discussion (virtual) based on Chih-Pu Dai's recent papers on Teacher Development, AI, and Virtual Reality.* Teacher Development Trust, London, UK.

McKimmy, P., Menchaca, M. P., Allen, S., & **Dai, C-P.** [Panelist] (2023, September 07). Panel Discussion. In McKimmy, P. (Chair), *AI in Your Syllabus and Classroom: A Presentation and Discussion* [Syposium]. Leading with Excellence conference, Office of the Vice Provost for Academic Excellence, University of Hawai'i at Mānoa, Honolulu, HI.

O'Shea, P. (Host). (2023, January 15). The Versatilist with Chih-Pu Dai. [Audio podcast episode]. In *The Versatilist Podcast* (https://www.podomatic.com/podcasts/versatilist). A podcast supported by the Immersive Learning Research Network (iLRN). https://www.podomatic.com/podcasts/versatilist/episodes/2023-01-15T19_38_26-08_00

Yuan, X., Ke, F., Southerland, S. A., & **Dai, C-P.** (2022, June). *Teaching practices with multiplayer mixed reality simulations and virtual students*. Poster presented at The American Association for the Advancement of Science (AAAS) NSF Improving Undergraduate STEM Education Program: Education and Human Resources (IUSE: EHR) National Summit. Washington, D.C. https://tinyurl.com/5n6c4mbe **Invited; conceptualization and poster creation supervised by the PIs.*

Dai, C-P., Ke, F., Dai, Z., West, L., Bhowmik, S., & Yuan, X. (2020, June). *Designing interactions in a computer-based virtual world for teaching training*. Refereed showcase presented at iLRN 2020: 6th International Conference of the Immersive Learning Research Network (Immersive Learning Project Showcase & Competition), San Luis Obispo, California. (Virtual Conference).

Research Experience

Summer 2019-Summer, 2023

Researcher, Florida State University

Graduate Research Assistant, Florida State University

Work in the *Cyberlearning Design and Research Group* (PI: Dr. Fengfeng Ke) on various National Science Foundation (NSF) grant projects conducting multiple independent and collaborative research projects under the awards and the supervision of the PI

Teaching Practices with Multiplayer Mixed Reality Simulations and Virtual Students; Co-PIs: Drs. Sherry Southerland and Xin Yuan. (NSF Improving Undergraduate STEM Education, IUSE) ($598,943)

Mixed Reality Integrated Teaching Training for STEM Graduate Teaching Assistants; Co-PI: Dr. Xin Yuan. (NSF Research Traineeship (NRT), IUSE) ($499,994)

Mathematical Learning via Architectural Design and Modeling Using E-Rebuild; Co-PIs: Drs. Russell Almond, Valerie Shute, Kathleen Clark, and Gordon Erlebacher) (NSF Discovery Research K-12, DRK-12) ($2,025,271)

- Digital project: Ke, F., **Dai, C-P**., [Scripting, Editing, Producing, Co-facilitating the discussion] & West, L. (2020). *E-Rebuild Scalable Architectural Game for Math Learning.* *https://multiplex.videohall.com/presentations/1749*

Fall, 2022-Spring, 2023 **Graduate Research Assistant,** Florida State University
Work on research projects supervised by Dr. Secil Caskurlu
Systematic literature review on multimodal learning analytics and K-12 education research

Spring, 2019-Spring, 2021 **Graduate Research Assistant**, Florida State University
Work on the NSF cyberlearning grant (Discovery Research K-12) team designing and developing learning supports, refining research instruments, collecting data in K-12 schools, and disseminating research findings; contributing to annual report writing and preparation.
Game-based Assessment and Support of STEM-related Competencies (Physics Playground) (PI: Dr. Valerie J. Shute; Co-PIs: Drs. Fengfeng Ke and Russell G. Almond; concluded May 31, 2021) ($1,066,257)

Courses Taught and Other Teaching Experience

At University of Hawai'i at Mānoa

Fall, 2023-Summer, 2025 **Course Redesign** (with Dr. Ariana Eichelberger and Dr. Adam Tanners), Deparetment of Learning Design and Technology, University of Hawai'i at Mānoa
LTEC 112: Technologies for Academic Success [Undergraduate]
[Revamping the course to stay up to date with artificial intelligence]
New Course Instructor, Designer and Developer, Department of Learning Design and Technology, University of Hawai'i at Mānoa
LTEC 645: Artificial Intelligence for Human Learning [Graduate]
(Approved by the University July, 2024)
Course Instructor, Department of Learning Design and Technology, University of Hawai'i at Mānoa
LTEC 750E: Seminar in Educational Technology Issues (E) Research [Graduate, Spring, 2025]
LTEC 647E: Learning with Emerging Technologies (E) Critical Trends: Artificial Intelligence [Graduate, Fall, 2024]
LTEC 668: Quantitative Research in Educational Technology [Graduate, Fall, 2024]

LTEC 647B: Learning with Emerging Technologies (B) Mobile Learning [Graduate, Summer II, 2024]
LTEC 112: Technologies for Academic Success [Undergraduate, Summer I, 2024, 2025]
LTEC 661: Design Thinking [Graduate, Spring, 2024]
LTEC 611: Educational Technology Research & Evaluation [Graduate, Spring, 2024; Teaching Assistant supervised: Yada Ponpittayalert, Spring, 2025]
LTEC 623: Digital Video Design [Online, Graduate, Teaching Assistant supervised: Jessica Chillingworth, Fall, 2023] [student course evals: 4.88/5.00]

At Florida State University

Summer, 2023 **Graduate Teaching Assistant,** Department of Educational Psychology and Learning Systems, Florida State University
EME 6357 - Evaluation of Training in HPT [with Dr. Jeff Phillips]

Fall, 2021-Spring, 2022 **Graduate Assistant in Teaching,** Department of Educational Psychology and Learning Systems, Florida State University
EME 6507 - Development of Multimedia Instruction, graduate-level hybrid course [Spring, 2022] [with Drs. Fengfeng Ke & Lukas Zhichun Liu]
EME 5077- Mobile Learning, graduate-level online course [Fall, 2021] [with Dr. Yasin Yalsin]

Invited Lectures and Other Teaching Experience

Fall, 2022 **Invited Lecture,** Department of Educational Psychology and Learning Systems, Florida State University
EME 5078 - Design of Online & Digital Adaptive Learning, graduate-level online course [Dr. Secil Caskurlu] – *Adaptive learning and the infusion of artificial intelligence in digital game-based and simulation-based learning*
Invited Lecture, Department of Educational Leadership, Policy, & Technology Studies, College of Education, University of Alabama
INTE534 - Issues and Trends of Instructional Technology [Dr. Jewoong Moon] – *The design of simulation-based learning experience with intelligent virtual agents: Challenges and prospects*

Spring, 2022 **Featured Innovator (Invited Speaker)**, Innovation Hub, Florida State University.
The Seminole Innovators Program [graduate/undergraduate students, Spring, 2022]: *Innovations in simulation-based learning for teacher education with virtual students*

Fall, 2012 **Teaching Assistant**, Chung Yuan Christian University, Taiwan
Spring 2013: CL204A Educational Psychology, CL202B Mandarin Phonology, CL202G Child Language Development, CL303G Chinese Curriculum and Instruction Design
Fall 2012: CL202D Introduction to Teaching Chinese as a Second Language, CL201A Mandarin Pronunciation

Fall, 2012 **Teaching Assistant**, Chang Gung University, Taiwan

GC1003 Chinese Literature

Graduate Student Advising

Graduate Assistant Mentoring

Azibun Nuder, Aug 2024-June 2025 (M.S., Information and Computer Sciences Department), University of Hawai'i at Mānoa

Doctoral Dissertation Committees

Shawna Gunnarson, 2025 (Ph.D. Committee Member for Comprehensive Exam, Department of Learning Design and Technology, Comprehensive Exam Passed), University of Hawai'i at Mānoa
Ongart Ratchaworapong, 2024-current (Ed.D. Committee Member, Department of Educational Administration, proposal defended), University of Hawai'i at Mānoa
Daniel Boulos, 2023-current (Ph.D. Committee member, Department of Learning Design and Technology, proposal defended), University of Hawai'i at Mānoa
Jessica Chillingworth, 2024-2025 (Ph.D. Committee member, Department of Learning Design and Technology, dissertation successfully defended), University of Hawai'i at Mānoa

Industry Consultation

Orange Therapeutics - AI Technologies Specialist (2025)
A startup company focusing on AI-driven extended reality solutions for pain relief, https://www.orangetherapeutics.com

Sponsored Research Project

Dai, Chih-Pu (PI). (Aug 2024 - May 2025). *Artificial Intelligence (AI) and Computer Science (CS): Impacts on Teaching and Learning in CS*. Hawai'i Education Research Network (College of Education, University of Hawai'i at Mānoa) and Hawai'i State Department of Education (HIDOE) (Research-Practice Partnership). $26,946 (GA support). [Final project report submitted June 6, 2025]

Honors and Awards

2023, 2025	**Mānoa Faculty Research Travel Award** ($2,000), Office of the Vice Provost for Research and Scholarship, University of Hawai'i at Mānoa
2024	**Best Proposal Award,** *Improving preservice teachers' culturally responsive teaching self-efficacy through artificial intelligence-supported virtual simulation*. Teacher Education Division, Association Educational Communications & Technology
2024	**Gagné/Briggs Outstanding Dissertation Award,** Instructional Systems and Learning Technologies, Florida State University
2023	**Dissertation Research Grant** ($1,000), Graduate School, Florida State University
2021-2022	**Ruby Diamond Future Professor Award Nomination** (2nd time), Instructional Systems and Learning Technologies, Florida State University

2020-2021	**Liliana Muhlman Masoner Outstanding International Student Award** ($1,000), Instructional Systems and Learning Technologies, Florida State University
2019-2020	**Ruby Diamond Future Professor Award** ($500), Instructional Systems and Learning Technologies, Florida State University
2019- 2023	**Travel Grants** ($1,200), the Congress of Graduate Students, Florida State University.
2019- 2023	**Marvalene Hughes Research in Education, Council on Research in Education (CORE), and EPLS Student Conference Travel Awards** ($3,990), Florida State University
2019-2022	**Travel Grants** ($2,550), Instructional Systems and Learning Technologies (Student Support Fund), Florida State University
2021	**ISLS – Wallace Foundation Scholarship Award** ($120)
2020	**AECT Scholarship Award** ($65)
2020	**Ascendium-Sponsored Practitioner Fellowships,** Society for Research on Educational Effectiveness (SREE) and Ascendium (Full coverage $1,498 proposed for attending SREE 2020 March conference in Arlington, VA) (Awarded, conference canceled due to COVID-19)
2019	**The Professional Development Travel Award** ($166), Department of Educational Psychology and Learning Systems, Florida State University
2018	**The Adelaide D. Wilson Graduate Fellowship** ($1,000 FSU fellowship), Florida State University
2018-2019	**The Gagné-Briggs Endowed Scholarship** ($25,000), Instructional Systems and Learning Technologies, Florida State University

Professional Services

Ad-hoc reviewer for journals and book chapters

(Web of Science profile: https://www.webofscience.com/wos/author/record/HHN-2084-2022)

2021-2023, 2025	Journal of Educational Computing Research
2023, 2025	British Journal of Educational Technology
2025	BMC Medical Education
2025	Cognitive Computation
2025	International Journal of STEM Education
2025	STEM Textbook for Education Proposal Review (Elsevier)
2024-2025	Advances in Methods and Practices in Psychological Science
2024-2025	Educational Psychology Review
2024-2025	Technology, Pedagogy and Education
2023-2025	Behaviour & Information Technology
2024-2025	Computers in Human Behavior
2024-2025	Computers in Human Behavior: Artificial Humans
2024-2025	Journal of Computer Assisted Learning
2023-2025	Interactive Learning Environments
2023-2025	International Journal of Human-Computer Interaction
2024	The International Journal for Educational Media and Technology
2024	Scientific Reports
2024	AERA Open

2024	npj Science of Learning (SSCI, Q1, part of the prestigious *Nature* Portfolio)
2024	Journal of New Approaches in Educational Research
2024	Discover Artificial Intelligence
2024	Contemporary Educational Psychology
2024	Virtual Reality
2024	Information and Learning Sciences
2023-2024	IEEE Transactions on Learning Technologies
2023-2024	Research and Practice in Technology Enhanced Learning
2024	The ACM CHI conference on Human Factors in Computing Systems
2023	Multimedia Tools and Applications
2023	Cogent Engineering
2020-2023	The Internet and Higher Education
2023	Cogent Education
2021-2023	Journal of Pedagogical Research
2023	Higher Learning Research Communications
2022	Computers & Education: Artificial Intelligence (Reviewer pool)
2022	Journal of Science Education and Technology
2022	Computer Animation and Virtual Worlds (SCI-indexed)
2021	Reviewer, Book Chapter in *Games as Stealth Assessments,* Edited by Michael P. McCreery & S. Kathleen Krach (Eds.), IGI Global

Ad-hoc reviewer and/or review panel for grant proposals

2024-2025	Croatian Science Foundation (Hrvatska zaklada za znanost, HRZZ)
2023-2024	NSF National Science Foundation (NSF)
2024	Institute of Education Sciences (IES) of the US Department of Education

Conference reviewer and committee

2020-2026	**Conference Reviewer**, American Educational Research Association (AERA)
2020-2025	**Conference Reviewer,** Annual Meeting of the International Society of the Learning Sciences (ICLS and CSCL)
2024	**Reviewer,** the International Conference on Computers in Education (ICCE) 2024, Extended Summary (ES)
2024	**Conference Co-Chair** International Conference on Computers in Education, C5: ICCE Sub-Conference on Educational Gamification and Game-based Learning (EGG), The Asia-Pacific Society for Computers in Education (APSCE)
2019-2025	**Conference Reviewer**, Association for Educational Communications and Technology (AECT)
2022-2023	**Program Committee Member and Reviewer** 30th/31st International Conference on Computers in Education, C5: ICCE Sub-Conference on Educational Gamification and Game-based Learning (EGG), The Asia-Pacific Society for Computers in Education (APSCE)
2021	**Conference Reviewer,** the 2021 Learning Sciences Graduate Student Conference

(LSGSC)
2021 **Reviewer,** SREE conference (the Research Methods section)

Professional Organizations

The International Academic Forum (IAFOR)
Association of Computer Machinery (ACM)
American Educational Research Association (AERA), 2019-2024
International Society for the Learning Sciences (ISLS), 2020- 2023
Association for Educational Communications & Technology (AECT), 2019- 2023
Florida Educational Research Association (FERA), 2019-2021
Immersive Learning Research Network (iLRN), 2020
Society for Research on Educational Effectiveness (SREE), 2020
International Study Association on Teachers and Teaching (ISATT), 2017

Services

College of Education, Department of Learning Design and Technology

2024, 2025	Burniske Award (Outstanding Master's Project) Review Committee, LTEC Department
2024-2025	College of Education, Department of Learning Design and Technology, the Advisory Search Committee for Assistant Professor, Learning Design and Technology
2024-2025	College of Education Senate Committee (Diversity), Co-Chair
2024-2025	College of Education (COE) Senate
2023-2024	College of Education (COE) Senate (Alternate of LTEC Department)
Fall, 2024	Discover UH Mānoa Open House (Oct, 26, 2024), Virtual Reality Cart hosted by the LTEC department
Fall, 2024-Summer, 2025	Graduate Certificate Coordinator, Online Learning and Teaching (COLT), LTEC Department
Spring, 2024-Summer, 2025	Admission Review Committee (MEd program, COLT Certificate), Department of Learning Design and Technology, University of Hawai'i at Mānoa
Fall, 2023	Discover UH Mānoa Open House (Oct, 21, 2023), Virtual Reality Cart hosted by the LTEC department

Professional Community

2026	2026 Association of Teacher Educators Annual Meeting, Conference Planning Committee (Publicity), Co-Chair
2025	SIG Executive Chair SIG Educational Gamification and Game-based Learning (EGG), The Asia-Pacific Society for Computers in Education (APSCE)
2024	SIG Co-Chair SIG Educational Gamification and Game-based Learning (EGG), The Asia-Pacific Society for Computers in Education (APSCE)
2024	Board Member-at -Large, Emerging Learning Technologies, Association for Educational Communications and Technology (AECT)
Fall, 2023	Session Facilitator

	Association for Educational Communications and Technology (AECT) International Convention, Orlando, FL. Divisions of *Emerging Learning Technologies* and *Design and Development*
Fall, 2022	Volunteer Association for Educational Communications and Technology (AECT) International Convention, Las Vegas, NV. Moderating concurrent sessions and assisting in Help Desk & Tech Center
Spring, 2022	Presentation Session Chair, *Learning Experience Design & Design Thinking* (SIG-Design and Technology), 2022 American Educational Research Association (AERA) Annual Meeting, San Diego, CA.
Fall, 2021	Volunteer (Presentation Session Facilitator, *Instructional Technology II*) 2021 Florida Educational Research Association 65th Annual Meeting, Tampa, FL.
Spring, 2021	Q&A Facilitator 2021 American Educational Research Association (AERA) Virtual Annual Meeting (Division G, Section 5; Division C, Section 1a)
Fall, 2020	Volunteer 2020 Association for Educational Communications and Technology (AECT) International Convention Moderating virtual concurrent sessions and assisting in virtual Help Desk & Tech Center
Spring, 2020	Assistant to the conference planners (Dr. James D. Klein and Demetrius Rice) Alumni-Student Knowledge Exchange (ASKe) conference, Instructional Systems and Learning Technologies program, Florida State University (switched online due to COVID-19)
2019	Volunteer (Tech Center) 2019 Association for Educational Communications and Technology (AECT) International Convention