Curriculum Vitae

Dr. Jewoong Moon

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CONTACT INFORMATION

E-mail address: jmoon19@ua.edu
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ResearchGate: https://www.researchgate.net/profile/Jewoong-Moon
Lab Website: https://adielab.ua.edu

University address: Department of Educational Leadership, Policy, and Technology Studies
Autherine Lucy Hall 315E
The University of Alabama
Tuscaloosa, Alabama

RESEARCH EXPERTISE

Digital Game-Based Learning, Inclusive and Immersive Learning Design (Extended Reality), Learning Analytics, and Educational Data Mining.

EDUCATION

2021 Ph.D., Florida State University, Tallahassee, FL.
Major: Instructional Systems & Learning Technologies.

2014 M.A., Chonnam National University, Gwangju, South Korea.
Major: Education (Educational Technology).

2012 B.Ed., Chonnam National University, Gwangju, South Korea.
Major: Educational Foundations.

PROFESSIONAL EXPERIENCES

2021 August Assistant Professor, Instructional Technology,
The University of Alabama, Tuscaloosa, AL.

PROFESSIONAL AFFILIATIONS

American Educational Research Association (AERA)
Association for Education Communications and Technology (AECT)
International Society of Learning Sciences (ISLS)
Immersive Learning Research Network (ILRN)

TEACHING & MENTORING

University of Alabama

Instructor

AIL 689 Practicum in Instructional Technology (Graduate – Doctoral, Spring 2025)
AIL 690 Seminar in Instructional Technology (Graduate - Doctoral, Fall 2024)
AIL 699 Dissertation Research (Graduate – Doctoral, Spring 2025)
AIL 605 Interactive Multimedia Processes (Graduate - Doctoral, Spring 2024-2025)
AIL 606 Software Technology (Graduate - Doctoral, Summer 2025)
INTE534 Issues and Trends of Instructional Technology (Graduate - Master, Fall 2021-2024)
INTE535 Analysis, Implementation, and Evaluation of Assistive Technology (Graduate - Master, Spring 2022-2024)
CAT100 Computer Concepts & Application (Undergraduate, Summer 2022-2024)
CAT200 Computer Education Application (Undergraduate, Summer 2022-2025)
CAT250 Computer Education & Curriculum Development (Undergraduate, Summer 2022)

Course Redesign

AIL 690 Seminar in Instructional Technology (Graduate - Doctoral, Fall 2024)
AIL 605 Interactive Multimedia Process (Graduate - Doctoral, Spring 2025)
AIL 606 Software Technology (Graduate - Doctoral, Summer 2025)
INTE534 Issues and Trends of Instructional Technology (Graduate - Master, Fall 2022)
INTE535 Analysis, Implementation, and Evaluation of Assistive Technology (Graduate - Master, Spring 2022)

Course Development

AIL 691 AI, Learning, and Instructional Systems (Graduate – Doctoral, 2026)
AIL 692 Introduction to Literature Synthesis (Graduate – Doctoral, 2026)

Florida State University

Assistant Instructor

EME6507 Development of Multimedia Instruction (Graduate Level, Spring 2020)

Teaching Assistant

EME6665 Synthesis, Analysis, and Argumentation in Instructional Systems Research (Graduate Level, Fall 2020)
EME6507 Development of Multimedia Instruction (Graduate Level, Spring 2017-2018)

Guest Lectures

CLP 6169 - Adult Development and Psychopathology, Dr. Yoon Eunhui (Florida State University)
LSC 6001 - Learning Science, Dr. Suhkyung Shin (Hanyang University, South Korea)

STUDENT ADVISING

Dissertation & Thesis Committee

Doctoral Dissertation Chair, Idowu David Awoyemi (ELPTS, College of Education)
Doctoral Dissertation Chair, Sherretta Williams (ELPTS, College of Education)
Doctoral Dissertation Co-Chair, Amanda McDaniel (ELPTS, College of Education)
Doctoral Dissertation Committee, Empress Searight (ELPTS, College of Education)
Doctoral Dissertation Committee, Kimberly Galho (ELPTS, College of Education)
Doctoral Dissertation Committee, Chynna Peoples (ELPTS, College of Education)
Doctoral Dissertation Committee, Mengshi Pei (ELPTS, College of Education)
Doctoral Dissertation Committee - External Member, Jullia Lim (Teachers College, Columbia University)
Master Thesis Committee, Raissa Marchiori (Civil Engineering, College of Engineering)

Course Advising

2024-Present, Stephen Abu (Doctoral Student, ELPTS, College of Education)
2023-Present, Idowu David Awoyemi (Doctoral Student, ELPTS, College of Education)
2024-Present, Derrick Vanover (Doctoral Student, ELPTS, College of Education)
2024- Present, Alexcis Cymone Keenan (Doctoral Student, ELPTS, College of Education)
2024- Present, Angela Sharpe (Doctoral Student, ELPTS, College of Education)
2024- Present, Christy Gordon (Doctoral Student, ELPTS, College of Education)
2024- Present, Amber Barton (Doctoral Student, ELPTS, College of Education)

Research Projects

2024-Current, Doctoral Candidate, Empress Searight (ELPTS, College of Education)
2024-Current, Doctoral Student, Stephen Abu (College of Education)
2024-Current, Doctoral Student, Arezoo Ghooreian (College of Education)
2022-Current, Doctoral Student, Idowu David Awoyemi (ELPTS, College of Education)
2024-Current, Master Student, Natalie Morr (ELPTS, College of Education)
2022-2024, Doctoral Student, Raissa Marchiori (Civil Engineering)
2022-2023, Doctoral Student, Sepher Khorshid (Civil Engineering)
2021-2022, Undergraduate Student, Melissa Murph
(Finance, The Culverhouse College of Business)
2021-2022, Undergraduate Student, Kaylin Robinson
(History, College of Arts and Sciences)

CONTRACTS, GRANTS, AND FELLOWSHIP

Funded

Moon, J. (September 2025 – August 2026). *The Institute for Social Science Research (ISSR) THRIVE Fellowship,* The University of Alabama, Total award $25,000, **FUNDED**

Moon, J. **(Lead PI)** (Jan 2025 – Dec 2025). *Enhancing Teacher Problem-Solving and Classroom Management Skills through an Open-Access AI-Powered 3D Simulation Platform*. Office for Research and Economic Development CREATE Program, The University of Alabama, Total award $4,000, **FUNDED**

Moon, J. (September 2024 – August 2025). *The Grant Writing Fellows Program. College of Education, The University of Alabama,* Total Fellowship amount (summer stipend) $4,000, **FUNDED**

Moon, J. **(Lead PI),** Bannerman, J. (PI), O'Harra, K. (PI), Schoger, K. (PI), Donoban C. (PI), & Coleman, J. (PI) (Jan 2022 – Dec 2024). *Examining Preservice Teachers' Digital Literacy Development and Learning Engagement via Art Integrated Technology-Enhanced Learning*. the Collaborative Arts Research Initiative, Total award $15,000, **FUNDED**

Pending

Moon, J. (September 2025 – Dec 2025). TeachPlay: AI-Enhanced Educational Gamelet Design, *Alabama Commission on Higher Education*, Total award $5,000, **SUBMITTED**

Moon, J. (September 2025). *SEC Faculty Travel Grant*, $1,574, **SUBMITTED**

Moon, J. (September 2025 – Dec 2025). RemixEd: Designing AI- and XR-Enhanced Instructional Modules for Inclusive, Doctoral-Level Online Learning, *Instructional Tide Teaching Grant*, Total award $1,500, **SUBMITTED**

Mohan, Y. (Lead PI), Jiang, P. (Lead PI), Wu, H. (Lead PI), Ning, R. (Lead PI), & **Moon, J. (Lead PI).** (September 2025 – August 2028). Collaborative Research: DRK-12: Immersive, Personalized, and Accessible Cybersecurity Transformation (IMPACT): Developing Future-ready Competencies Empowered by Generative AI for Middle and High Schoolers. National Science Foundation, Total award $300,000, **PENDING**

Sumengen, A. (Lead PI), Chen, K. (PI), & **Moon, J. (PI),** & McCoy, T. (PI) (December 2025 – November 2026). A Biofeedback-Based Virtual Reality Implementation to Teach Metered Dose Inhaler Technique Education for Pediatric Asthma Patients: A Development and Feasibility Study. National Institutes of Health (NIH), Total award $415,250, **PENDING**

Moon, J. (Lead PI) (June 2025 – May 2026). Optimizing Digital Math Learning Through Temporal Analytics: Exploring Spacing Effects and Time-on-Task Behaviors in Khan Academy, Total award $40,255, Advanced Innovative Math Solutions Collaboratory, **PENDING**

Moon, J. (Lead PI) (January 2026 – December 2027). AI-Enhanced Game-Based Executive Function Intervention for Autistic Children, Total award $50,000, OAR Foundation, **Letter of Intent SUBMITTED**

Moon, J. (Lead PI) (September 2025 – August 2028)**.** Immersive AI Analytics in Teacher Education: Enhancing Reflection and Pedagogical Adaptability**.** Total award $50,000,

Spencer Foundation Small Research Grant Program, **PENDING.**

Moon, J. (Lead PI) (January 2026 – December 2029). CyberSecure Minds: Generative AI-enhanced Microlearning Games to Teach Math and Science through Real-World Cybersecurity Scenarios for Marginalized Youth, William T. Grant Scholars Program, **In Preparation.**

Unfunded

Shi, Y. (Lead PI), Du, J. (Lead PI)**, Moon, J. (Lead PI),** Myers, L. (PI) (August 2025 – July 2028). Collaborative Research: RITEL: Preparing First Responders for Future Robotic Technologies through Distributed and Embodied Virtual Learning Environment. National Science Foundation, Total award $220,000, **NOT FUNDED**

Moon, J. (Lead PI) (May 2025 – May 2027). Transforming Rural Teacher Preparation: An AI-Powered 3D Simulation for Real-World Classroom Problem-Solving. Total award $95,000, Unity Humanity Grant, **NOT FUNDED**

Liu, J. (Lead PI), Dalal, R. (PI), Myers, L. (PI), **Moon, J. (PI),** Shi, Y. (PI), Wang, H. (PI), Ni, S. (PI), Trouvé, A. (PI), Stoliarov, S. (PI) Co-DEMP: Co-Designed Multi-Phase Training for Electric Vehicle Emergency Responses. Department of Energy, U.S Government. Total award $2,500,000, **NOT FUNDED**

McNeill, L. (Lead PI), **Moon, J**. **(PI)**, Edmonds, C. (PI) (July 2024 – June 2027). *HOPE: Harnessing Opportunities for Promoting Heterophily and Engagement in Business Education through Gamification*. Spencer Foundation, Total award $500,000, **NOT FUNDED**

Suh, J. (Lead PI), **Moon, J. (PI),** & Worsley, M. (PI) (July 2024 – June 2028). *Toward Data-Driven Adaptive Teaching: Developing Adaptive Teaching Expertise through a Technology-Empowered Decision-making (TED) System*. National Science Foundation, Total award $1,100,318, **NOT FUNDED**

Moon, J. **(Lead PI)** & Suh, J. (PI) (Sep 2022 – Aug 2024). *Developing a Teaching Analytic System for Middle School Science Teachers*. ORED Internal Funding, Total award $12,000, **NOT FUNDED**

Moon, J. **(Lead PI)** & Shi, Y. (PI) (Jan 2022 – Dec 2025). *Design and Development of Adaptive Game-based Training to Enhance Computational Thinking of Rural Adolescents with Autism via Minecraft Gameplay*. National Science Foundation, Total award $298,279, **NOT FUNDED**

Moon, J. (Lead PI), Liu, Z. (PI), & Ke, F. (PI) (July 2023 – June 2027). *Developing Adaptive Game-based Learning to Promote Computational Thinking in Rural Youths with Autism in Integrated STEM Education*. Spencer Foundation, Total award $50,000, **NOT FUNDED**

Moon, J. **(Lead PI).** (August 2021 – July 2022). *Creating Accessible Game-based Learning to Promote Computational Thinking of Rural Youths with Autism*. Wallace Foundation (International Society of the Learning Sciences), Total award $10,000, **NOT FUNDED**

SELECTED JOURNAL ARTICLES [n = 47]

Note 1. IF is Impact Factor in 2023 and IF5 indicates 5-Year Impact Factor.
Note 2. * indicates the work with a mentoring student
Note 3. ‡ indicates the corresponding authorship.

International and Peer-reviewed (n = 44)

[44] Aldemir, T., **Moon, J.**, Bicer, A., Byun, G., Carlos Manrique, P., & Vivek, S. (Accepted, 2025). Unpacking challenges and opportunities in extended reality (XR)-enhanced maker education for non-CS preservice teachers: Insights from a case of 3D game design. *Computers and Education: X Reality (CEXR)*.

[43] ‡ Lim, J., Lee, U., Koh, J., Jung, Y., Jung, H., Lee, Y., Byun, G., Jang, Y., Lee, S., & **Moon, J**. (2025). Development and implementation of a generative artificial intelligence-enhanced simulation to enhance problem-solving skills for pre-service teachers. *Computers & Education* https://doi.org/10.1016/j.compedu.2025.105306 ***[SSCI-, SCIE-indexed; IF = 8.9, IF5 = 11.6]***

[42] Park, Y., **Moon, J.**, & Na, H. (2025). Elementary STEM teachers' open educational resources and TPACK in a professional learning network: A case study. *Online Learning Journal*. *29*(1), 192-215. https://doi.org/10.24059/olj.v29i1.4102 ***[ESCI-indexed; IF = 2.8, IF5 = 4.4]***

[41] Marchiori, R., Song, S., & **Moon, J.** (2025). Developing heat stress training programs: A training-driven assessment approach to enhance safety in the construction industry. *Journal of Safety Research*. *92*, 262-271 https://doi.org/10.1016/j.jsr.2024.11.027 ***[SSCI-indexed; IF = 3.9, IF5 = 4.2]***

[40] ‡ **Moon, J**., Ke, F., & Sokolikj, Z. (2024). Game-based performance tasks for assessing representational flexibility of autistic adolescents in a virtual world. *Technology, Knowledge, and Learning* https://doi.org/10.1007/s10758-024-09806-6 ***[ESCI-indexed, IF = 3.0, IF5 = 3.5]***

[39] Lee, U., Jung, Y., Koh, J., Lee, Y., Byun, G., Lee, H., Eun, S., **Moon, J**., Lim, C., & Kim, H. (2024). I see you: Teacher analytics with GPT-4 vision-powered observational assessment. *Smart Learning Environments* https://doi.org/10.1186/s40561-024-00335-4 ***[ESCI-indexed; IF = 6.7]***

[38] Bae, H., Hur, J., Park, J., Choi, G. W., & **Moon, J.** (2024). Pre-service teachers' dual perspectives on generative AI: Benefits, challenges, and integrating into teaching and learning. *Online Learning* https://doi.org/10.24059/olj.v28i3.4543 ***[ESCI-indexed; IF = 2.8, IF5 = 4.4]***

[37] ‡ **Moon, J**., Lee, U., Koh, J., Jeong, Y., Byun, G., Lee, Y., & Lim, J. (2024). Generative artificial intelligence in educational game design: Nuanced challenges, design implications, and future research. *Technology, Knowledge, and Learning* https://doi.org/10.1007/s10758-024-09756-z ***[ESCI-indexed, IF = 3.0, IF5 = 3.5]***

[36] ‡ **Moon, J.**, McNeill, L., Edmonds, C., Banihashem, K., & Noroozi, O. (2024). Using learning analytics to explore peer learning patterns in asynchronous gamified environments. *International Journal of Educational Technology in Higher Education* https://doi.org/10.1186/s41239-024-00476-z ***[SSCI-indexed, IF = 8.6, IF5 = 9.9]***

[35] ‡ **Moon, J**., Yeo, S., Banihashem, K., & Noroozi, O. (2024). Using multimodal learning analytics as a formative assessment tool: Exploring collaborative dynamics in mathematics teacher education. *Journal of Computer Assisted Learning*

https://doi.org/10.1111/jcal.13028 ***[SSCI-indexed, IF = 5.1, IF5 = 5.4]***

[34] Yeo, S., **Moon, J**., & Kim, D. J. (2024). Transforming mathematics education with AI: Innovations, implementations, and insights. *The Mathematical Education* https://doi.org/10.7468/mathedu.2024.63.2.387 ***[KCI-indexed, IF5 =1.28]***

[33] ‡ * Awoyemi, I. D., Mercado, F., & **Moon, J.** (2024). A narrative review of immersive virtual reality to enhance high school students' mathematics competence. *The Mathematical Education* https://doi.org/10.7468/mathedu.2024.63.2.1 ***[KCI-indexed, IF5 = 1.28]***

[32] Choi, G. W., Lim, J., Kim, S., **Moon, J.,** & Jung, Y. (2024). A case study of South Korean elementary school teachers' emergence remote teaching. *Knowledge Management & e-learning*: *International Journal*. *16*(2). 259-285. https://doi.org/10.34105/j.kmel.2024.16.013 ***[ESCI-indexed, IF = 2.5, IF5 = 2.5]***

[31] McNeill, L., **Moon, J**., Edmonds, C. (2024). Student engagement in a gamified online learning environment: A data mining approach. *Journal of Applied Instructional Design* https://doi.org/10.59668/1269.15624

[30] Choi, G. W., Lee, D., Kim, S. H, & **Moon, J**. (2024). Utilizing generative artificial intelligence for instructional design: Exploring strengths, weakness, opportunities, and threats. *TechTrends* https://doi.org/10.1007/s11528-024-00967-w ***[ESCI-indexed, IF = 2.2, IF5 = 2.8]***

[29] ‡ * **Moon, J.**, Yeo, S., Si, Q., & Ljeluola, A. S. (2024). A scoping review of game-based learning on mathematics teacher education. *International Journal of Mathematics Education in Science and Technology* https://doi.org/10.1080/0020739X.2024.2337934 ***[ESCI-indexed, IF = 0.7, IF5 = 0.9]***

[28] ‡ **Moon, J**., Ke, F., Sokolikj, Z., & Chakraborty, S. (2024). Applying multimodal data fusion to track autistic adolescents' representational flexibility development during virtual reality-based training . *Computers & Education: X Reality, 4,* 100063. https://doi.org/10.1016/j.cexr.2024.100063

[27] Banihashem, K., Kerman, N. T., Noroozi, O., **Moon, J**., & Drachsler, H. (2024). Peer-generated or AI-generated feedback? An empirical study in the context of essay writing. *International Journal of Educational Technology in Higher Education, 21,* 23. https://doi.org/10.1186/s41239-024-00455-4 ***[SSCI-indexed, IF = 8.6, IF5 = 9.9]***

[26] * Na, C., Lee, D., **Moon, J**., & Shin, Y. (2024). Modeling undergraduate students' learning dynamics between self-regulated learning patterns and community of inquiry. *Education and Information Technologies* https://doi.org/10.1007/s10639-024-12527-z ***[SSCI-indexed, IF = 5.5]***

[25] Dai, C., 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, 31.* https://doi.org/10.1007/s10648-024-09855-4 ***[SSCI-indexed, IF = 10.1, IF5 = 12.5]***

[24] ‡ **Moon, J.** (2024). Learning experience design of a verbal prompt in virtual reality-based training for children with autism. *Research in Learning Technology, 32.* https://dx.doi.org/10.25304/rlt.v32.3129 ***[ESCI-indexed, IF = 1.9, IF5 = 2.6]***

[23] Glaser, N., Schmidt, M., Thull, C., Tennant, A., **Moon, J**., & Ousley, C. (2023). Learner experience design and unpacking sociocultural, technological, and pedagogical design considerations of spherical video-based virtual reality systems for autistic learners: A systematic literature review. *Journal of Autism and Developmental Disorders*

https://doi.org/10.1007/s10803-023-06168-3 ***[SSCI-indexed, IF = 3.2, IF5 = 4.2]***

[22] * Lee, U., Jung, H., Jeon, Y., Soh, Y., Hwang, W., **Moon, J.,** Kim, H. (2023). Few-shot is enough: Exploring ChatGPT prompt engineering method for automatic question generation in English education. *Education and Information Technologies* https://doi.org/10.1007/s10639-023-12249-8 ***[SSCI-indexed, IF = 4.8, IF5 = 4.8]***

[21] ‡ **Moon, J**., Choi, G. W., & Seo, J. (2023). Revisiting multimedia learning design principles in virtual reality-based learning environments for autistic individuals. *Virtual Reality, 27*, 3101-3113. https://doi.org/10.1007/s10055-023-00856-2 ***[SCIE-indexed, IF = 4.4, IF5 = 5.4]***

[20] ‡ **Moon, J.**, & Ke, F. (2023). Effects of adaptive prompts in virtual reality-based social skills training for children with autism. *Journal of Autism and Developmental Disorders*, https://doi.org/10.1007/s10803-023-06021-7 ***[SSCI-indexed, IF = 3.2, IF5 = 4.2]***

[19] Liu, Z., & **Moon, J.** (2023). A framework for applying sequential data analytics to design personalized digital game-based learning for computing education. *Journal of Educational Technology & Society, 26*(2), 181-197. *https://doi.org/10.30191/ETS.202304_26(2).0013* ***[SSCI-indexed, IF = 4.6, IF5 = 4.7]***

[18] ‡ **Moon, J.,** Lee, D., Choi, G.W., Seo, J., Do, J., & Lim, T. (2023). Learning analytics in seamless learning environments: A systematic review. *Interactive Learning Environments.* https://doi.org/10.1080/10494820.2023.2170422 ***[SSCI-indexed, IF = 3.7, IF5 = 4.5]***

[17] Ke, F., **Moon, J.,** & Sokolikj, Z. (2022). Designing and deploying a virtual social sandbox for children with autism. *Disability and Rehabilitation: Assistive Technology, 19*(4), 1178-1209. https://doi.org/10.1080/17483107.2022.2156630 ***[SSCI-indexed, IF = 1.9, IF5 = 2.4]***

[16] * Yu, J., Ma, W., **Moon, J.**, & Denham, A. (2022). Developing a stealth assessment system using a continuous conjunctive model. *Journal of Learning Analytics, 9*(3), 11-31. https://doi.org/10.18608/jla.2022.7639 ***[ESCI-indexed, IF = 2.9, IF5 = 3.7]***

[15] ‡ **Moon, J.**, Ke, F., Sokolikj, Z., & Dahlstrom-Hakki, I. (2022). Multimodal data fusion to track students' distress during educational gameplay. *Journal of Learning Analytics, 9*(3), 75-87. https://doi.org/10.18608/jla.2022.7631 ***[ESCI-indexed, IF = 2.9, IF5 = 3.7]***

[14] Seo, J., **Moon, J.**, Choi, G.W., & Do, J. (2022). A scoping review of three computational approaches to ethnographic research in digital learning environments. *TechTrends. 66*, 102–111. https://doi.org/10.1007/s11528-021-00689-3 ***[ESCI-indexed, IF = 2.2, IF5 = 2.8]***

[13] Ke, F., **Moon, J.**, & Sokolikj, Z. (2022). Virtual reality-based social skills training for children with autism spectrum disorder. *Journal of Special Education Technology, 37*(1), 49-62. https://doi.org/10.1177/0162643420945603 ***[SSCI-indexed, IF = 1.2, IF5 = 2.0]***

[12] ‡ **Moon, J**., Lee, S., & Xu, X. (2022). Exploring pre-service teachers' technology-integration belief and scientific inquiry in a teacher-development course. *International Journal of Technology and Design Education*, *32*, 1777–1798. https://doi.org/10.1007/s10798-021-09672-8 ***[SCIE- and SSCI-indexed, IF = 2.0, IF5 = 2.3]***

[11] ‡ **Moon, J**., & Park, Y. (2021). A scoping review on open educational resources to support interactions of learners with disabilities. *The International Review of Research in Open*

and Distributed Learning https://doi.org/10.19173/irrodl.v22i1.5110 ***[SSCI-indexed, IF = 2.5, IF5 = 3.4]***

[10] Tlili, A., Chang, M., **Moon, J**., Liu, Z., Burgos, D., Chen, N. S., & Kinshuk (2021). A systematic literature review of empirical studies on learning analytics in educational games. *International Journal of Interactive Multimedia and Artificial Intelligence*, *7*(2). http://dx.doi.org/10.9781/ijimai.2021.03.003 ***[SCIE-indexed, IF = 3.4, IF5 = 2.8]***

[9] ‡ **Moon, J.**, Ke, F., & Sokolikj, Z. (2020). Automatic assessment of cognitive and emotional states in virtual reality-based flexibility training for adolescents with autism. *British Journal of Educational Technology*, *51*(5), 1766-1784. https://dx.doi.org/10.1111/bjet.13005 ***[SSCI-indexed, IF = 6.6, IF5 = 7.2]***

[8] Liu, Z., **Moon, J.**, Kim, B., & Dai, C. (2020). Integrating adaptivity to educational games: A combination of bibliometric and meta-analytic review. *Educational Technology Research and Development*. *68*, 1931-1959. https://doi.org/10.1007/s11423-020-09791-4 **[*SSCI-indexed, IF = 3.3, IF5 = 4.8*]**

[7] ‡ **Moon, J.**, & Ryu, J. (2020). The effects of social and cognitive cues on learning comprehension, eye-gaze pattern, and cognitive load in video instruction. *Journal of Computing in Higher Education*, *33*, 39–63. https://doi.org/10.1007/s12528-020-09255-x **[*SSCI-indexed, IF = 4.5, IF5 = 5.2*]**

[6] ‡ **Moon, J.**, & Ke, F. (2020). Exploring the relationships among middle school students' peer interactions, task efficiency, and learning engagement in game-based learning. *Simulation & Gaming*, *51*(3), 310-335. https://doi.org/10.1177/1046878120907940 **[*ESCI-indexed, IF = 1.5, IF5 = 2.4*]**

[5] **Moon, J.**, Do, J., Lee, D., & Choi, G. (2020). A conceptual framework for teaching computational thinking in personalized OERs. *Smart Learning Environments*, *7*(6). https://doi.org/10.1186/s40561-019-0108-z **[*ESCI-indexed, IF = 6.7*]**

[4] ‡ **Moon, J.**, & Ke, F. (2019). In-game actions to promote game-based math learning engagement. *Journal of Educational Computing Research, 58*(4), 863-885. https://doi.org/10.1177/0735633119878611 **[*SSCI-indexed, IF = 4.0, IF5 = 5.0*]**

[3] ‡ **Moon, J.**, & Ke, F. (2019). Exploring the treatment integrity of virtual reality-based social skills training for children with high-functioning autism. *Interactive Learning Environment, 29*(6), 939-953. http://dx.doi.org/10.1080/10494820.2019.1613665 **[*SSCI-indexed, IF = 3.7, IF5 = 4.5*]**

[2] Ke, F., & **Moon, J.** (2018). Virtual collaborative gaming as social skills training for high-functioning autistic children. *British Journal of Educational Technology, 49*(4), 728-741. https://doi.org/10.1111/bjet.12626 **[*SSCI-indexed, IF = 6.6, IF5 = 7.2*]**

[1] ‡ **Moon, J.** (2018). Reviews of social embodiment for design of non-player characters in virtual reality-based social skill training for autistic children. *Multimodal Technologies and Interaction, 2*(3), 53-62. https://doi.org/10.3390/mti2030053 **[*ESCI-indexed, IF = 2.4*]**

Korean-written and Peer-reviewed (n = 3)

[3] Do, J., Kim. S., & **Moon, J**. (2020). Exploring synchronous online course cases on secondary schools via semantic network analysis. *Journal of Qualitative Inquiry*. *6*(3), 637-681. http://www.riss.kr/link?id=A107079753

[2] Ryu, J., & **Moon, J.** (2013). The effects of line length and information seeking in e-book for

learning on eye-fixation time, cognitive load, and comprehension. *The Korea Educational Review, 19*(3), 293-313. http://uci.or.kr/G704-001273.2013.19.3.007

[1] Ryu, J., Jung, H., & **Moon, J.** (2013). Needs analysis of distance education students for using e-textbooks on smart pads. *The Journal of the Korea Content, 13*(10), 594-603. http://doi.org/10.5392/JKCA.2013.13.10.594

EDITORIAL BOOK [n = 1]

[1] **Moon, J.**, G.W., Choi, Bae, H., Byun, J. (2023). *Instructional Technology and Learning Sciences: Korean Open Access Guide.* Korean Edutech/LearningSciences Researcher Network (KELS). EdtechBooks. https://edtechbooks.org/edutechlearningscienceskorean

SELECTED BOOK CHAPTERS [n = 6]

Book Chapter (n = 6)

[6] * Abu, S., Ghooreian, A., Ogunniran, M., Awoyemi, I., **Moon, J**. (Accepted, 2026). Game-based Learning for Social Changes. In Trifonas, P. (Eds.), International Handbook of Theory and Research in Digital Media and Education. Springer.

[5] * Hong, S., **Moon, J**., Eom, T., Hwang, J., Lim, J., & Park, S. (Accepted, 2026). Immersive and Engaging Design for Teacher Simulation: Theoretical Foundations and Innovative Approaches. In Trifonas, P. (Eds.), International Handbook of Theory and Research in Digital Media and Education. Springer.

[4] Kim, B. J., Ke, F., **Moon, J**., and West, L. (2021). Designing Dynamic Learning Supports for Game and Simulation-Based Learning in STEM Education, Aprea C. and Ifenthaler, D.(eds.) in *Game-based Learning Across the Disciplines*. Advances in Game-Based Learning, Springer, Cham. https://doi.org/10.1007/978-3-030-75142-5_8

[3] Choi, G., **Moon, J.**, Do, J., & Lee, D. (2020). *Open Educational Resources in Korea*. Huang, R., Liu, D., Tlili, A., Gao, Y., & Koper, R. (eds.) *Open Education Resources in "Belt and Road" Countries*, Lecture Note Series in Educational Technology. Springer, Singapore. https://doi.org/10.1007/978-981-15-3040-1_5

[2] **Moon, J.** & Liu, Z. (2019). *Rich Representations for Analyzing Learning Trajectories: Systematic Review on Sequential-Data Analytics in Game-based Learning Research*. Tlili, A., & Maiga (eds.) *Data Analytics Approaches in Educational Games and Gamification Systems, Smart Computing, and Intelligence*, Springer, Singapore. http://doi.org/10.1007/978-981-32-9335-9_2

[1] Kang, J., **Moon, J.**, & Diederich, M. (2019). *Educational Games and Gamification: From Foundations to Applications of Data Analytics*. Tlili, A., & Maiga (eds.) *Data Analytics Approaches in Educational Games and Gamification Systems*, Smart Computing, and Intelligence, Springer, Singapore. http://doi.org/10.1007/978-981-32-9335-9_1.

REFEREED CONFERENCE PROFEEDINGS [n = 20]

Note. * indicates the work with a mentoring student

[20] * Byun, G., **Moon, J**., Chen, S., Ghooreian, A. (2024). Generative AI-Enhanced Chatbot Design for Constructionist Gaming. In: Plass, J.L., Ochoa, X. (eds) Serious Games. JCSG

2024. Lecture Notes in Computer Science, vol 15259. Springer, Cham. https://link.springer.com/10.1007/978-3-031-74138-8_34

[19] * Jeong, Y., Lee, Y., Byun, G., & **Moon, J**. (2024). Navigating the Creation of Immersive Learning Environments in Roblox: Integrating Generative AI for Enhanced Simulation-based Learning. *Immersive Learning Research - Practitioner*, *1*(1), 16–19. https://doi.org/10.56198/5M1RHT9ZJ

[18] Byun, G., **Moon, J**., & Sun, C. (2024). Enhancing Computational Thinking through Constructionist Gaming in a Roblox-supported Virtual Makerspace. *Immersive Learning Research - Practitioner*, *1*(1), 32–35. https://doi.org/10.56198/5M1RHNGTM

[17] * **Moon, J**., Song, S., Awoyemi, I., Marchiori, R., & Khorshid, S. (2023). Immersive Technology-Enhanced Learning System Design in Civil Engineering Education. *Immersive Learning Research - Practitioner*, *1*(1), 109–111. Retrieved from https://publications.immersivelrn.org/index.php/practitioner/article/view/66

[16] **Moon, J**., McNeill, L., Edmonds, C. (2023). Gamification System Design for Promoting Heterophily in Accounting Education. *Immersive Learning Research - Practitioner*, *1*(1), 112–113. Retrieved from https://publications.immersivelrn.org/index.php/practitioner/article/view/67

[15] * Awoyemi, I. D., & **Moon, J.** (2023). Teachers' Integration of Immersive Virtual Reality in Enhancing High school students' Mathematics Competence in an Online Learning Environment: A Narrative Review. *Immersive Learning Research - Practitioner*, *1*(1), 21–25. Retrieved from https://publications.immersivelrn.org/index.php/practitioner/article/view/100

[14] Sokolikj, Z., Ke, F., Chakraborty, S., & **Moon, J.** (2023). Using deep learning to track representational flexibility development of students with autism in a nurturing virtual reality environment. *ICIET 2023*, Fujisawa, Japan. https://doi.org/10.1109/ICIET56899.2023.10111218

[13] Moon, J., Ke, F., Sokolikj, Z., & Chakraborty, S. (2022). Multimodal data fusion to track representational flexibility of adolescents with autism spectrum disorder during virtual reality-based training. In Chinn, C., Tan, E., Chan, C., & Kali, Y. (Eds.), Proceedings of *the 16th International Conference of the Learning Sciences - ICLS 2022* (pp. 889-892). International Society of the Learning Sciences. https://dx.doi.org/10.22318/icls2022.889

[12] **Moon, J**., Ke, F., Sokolikj, Z., & Chakraborty, S. (2021). Using sequence mining to explore the representational flexibility development of adolescents with autism spectrum disorder in virtual reality-based flexibility training. In de Vries, E., Hod, Y., & Ahn, J. (Eds.), Proceedings of *the 15th International Conference of the Learning Sciences - ICLS 2021.* (pp. 919-920). Bochum, Germany: International Society of the Learning Sciences. https://doi.dx.org/10.22318/icls2021.919

[11] Liu, Z. & **Moon, J.** (2021). Investigating children's problem-solving patterns in digital game-based learning for computational thinking development. In de Vries, E., Hod, Y., & Ahn, J. (Eds.), Proceedings of *the 15th International Conference of the Learning Sciences - ICLS 2021.* (pp. 949-950). Bochum, Germany: International Society of the Learning Sciences. https://doi.dx.org/10.22318/icls2021.949

[10] Israel, M., Liu, T., **Moon, J**., Ke, F., & Dahlstrom-Hakki, I. (2021). Methodological considerations for understanding students' problem solving processes and affective trajectories during game-based learning: A data fusion approach. In: Fang X. (eds) HCI in Games: Serious and Immersive Games. HCI 2021. Lecture Notes in Computer

Science, vol 12790. Springer, Cham. https://doi.org/10.1007/978-3-030-77414-1_15

[9] Ke, F., **Moon, J.**, & Sokolikj, Z. (2020). Tracking Representational Flexibility Development through Speech Data Mining. In 2020 IEEE Frontiers in Education Conference (FIE) (pp. 1-4). IEEE. https://doi.org/10.1109/FIE44824.2020.9273818

[8] **Moon, J.** & Ke, F. (2020). Understanding epistemic networks in virtual reality-based collaborative gameplay for social-skills training with children with autism. In Melissa Gresalfi, & Ilana Seidel Horn (Eds.), *the International Conference of the Learning Sciences* (pp. 779-780). International Society of the Learning Sciences. Nashville, TN. https://doi.dx.org/10.22318/icls2020.779

[7] **Moon, J.** & Ke, F. (2020). Exploring learning supports in virtual reality-based flexibility training for adolescents with autism. In Melissa Gresalfi, & Ilana Seidel Horn (Eds.), *the International Conference of the Learning Sciences* (pp. 1729-1730). International Society of the Learning Sciences. Nashville, TN. https://doi.dx.org/10.22318/icls2020.1729

[6] Ke, F., & **Moon, J.** (2018). Examining virtual-reality-based learning design for children with autism via seasonal index analysis. In Judy Kay, & Rosemary Luckin (Eds.), *the International Conference of the Learning Sciences* (pp. 973-976). International Society of the Learning Sciences. London, United Kingdom. https://doi.dx.org/10.22318/cscl2018.973

[5] Ke, F., & **Moon, J.** (2018). Exploring learning-facilitating game actions via sequential analysis. In Kristy Elizabeth Boyer, & Michael Yudelson (Eds.), *the 11th International Conference on Educational Data Mining* (pp. 490-491). Buffalo, NY.

[4] **Moon, J.**, & Ke, F. (2018). Exploring potential effectiveness of Jaccard index to measure treatment integrity in virtual reality-based social training program for children with high-functioning autism. In Kristy Elizabeth Boyer, & Michael Yudelson (Eds.), *the 11th International Conference on Educational Data Mining* (pp. 486-487). Buffalo, NY.

[3] **Moon, J.**, Ke, F., Xu, X., Pan, Y., & Dai, Z. (2017). The effect of peer interaction on task efficiency and learning engagement in digital game-based learning. In Brian K Smith, Marcela Borge, Emma Mercier, & Kyu-Yon Lim (Eds.), *International Conference on Computer Supported Collaborative Learning* (pp. 777-778). International Society of the Learning Sciences. Philadelphia, PA.

[2] **Moon, J.**, & Ke., F. (2016). Categorization of embodied user interface in immersive virtual environment. Paper presented at Doctoral Consortium, 2016. Proceedings. *IEEE International Conference on Advanced Learning Technologies*. Austin, TX.

[1] **Moon, J.** (2016). Classification of cognitive domains and natural user interface in immersive virtual environments. In *Proceedings of Society for Information Technology & Teacher Education International Conference 2016* (pp. 1305-1309). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE). Retrieved from https://www.learntechlib.org/p/171859. Savanna, GA.

CONFERENCE PRESENTATIONS [n = 54]

Note. * indicates the work with a mentoring student

[54] Awoyemi, I., Abu, S., Yuvaraja, H., **Moon, J**., Patiballa, S. (Accepted, 2025 October). Exploring fidelity dimensions in extended reality technologies for mechanical engineering education: A systematic review, Concurrent Session, AECT 2025.

[53] Hong, S., Eom, T., & **Moon, J.** (Accepted, 2025 October). Extended reality-supported teacher simulation for authentic learning : A systematic literature review. Concurrent Session, AECT 2025.

[52] Hur, J., Park, J., Bae, H., Choi, G. W., & **Moon, J**. (Accepted, 2025 October). Pre-service Teachers' Discussions on GenAI through Linguistic Features: Using LIWC and ENA. Concurrent Session, AECT 2025 Convention.

[51] Uddin, M., & **Moon, J**. (Accepted, 2025 October). University Students' Perceptions of Conversational AI: Benefits, Risks, and Ethical Implications in AI-enhanced Classroom. AECT 2025 Convention.

[50] Lee, U., Kim, H., Eom, J., Jeong, H., Lee, S., Byun, G., Lee, Y., Kang, M., Na, J., **Moon,** J., & Kim, H. (Accepted, 2025). Echo-Teddy: Preliminary Design and Development of Large Language Model-based Social Robot for Autistic Students. ITS 2025.

[49] Jung, Y., Zhu, X., Oshima, J., Oshima, R., Chen, B., **Moon, J**., McNeill, L., Edmonds, C., Banihashem, K., Dey, In., Puntambekar, S., & Jackson, T. (Accepted, 2025 June). Towards actionable collaborative discourse analysis: Bridging advanced computational analysis with practical implementation. ISLS2025 Symposium

[48] Hong, S., Eom, T., Hwang, J., Lim, J., Lim, C., & **Moon, J.** (2025 April). Integrating a generative AI-enhanced virtual reality simulation into teacher education: A preliminary design study. AERA 2025 Poster Session.

[47] Kim, C.,, Lim, J., Kang, M., & **Moon, J.** (2025, April). A systematic review on design features of scenario-based learning in virtual reality. AERA 2025 Poster Session.

[46] Bae, H., Hur, J., Park, J., **Moon, J**., Choi, G. W. (2024 October). Pre-service Teachers' perspectives on adopting generative AI: Benefits, challenges, and integrating into teaching practices. AECT 2024 Convention.

[45] Awoyemi, I., Unggi, L., & **Moon, J.** (2024 October). Integration of automatic video-based behavior assessment in virtual reality-based safety training. Poster Presentation. AECT 2024 Convention.

[44] Awoyemi, I., **Moon, J**., Song, S., Marchiori, R. (2024 October). Development of immersive virtual reality-based training to develop hazard identification skills in civil engineering education. Poster Presentation. AECT 2024 Convention.

[43] Abu, S., Ghooreian, Awoyemi, I., & **Moon, J.** (2024 October). Designing a performing arts-integrated learning program for promoting digital literacy and engagement among pre-service teachers. Poster Presentation. AECT 2024 Convention.

[42] Na, H., Yang, M., Peng, J., **Moon, J**., Moore, M., & Price, J. (2024 October). Design and development of 3D escape room for learning cybersecurity. Emerging Technologies Showcase, AECT 2024 Convention.

[41] Byun, G., **Moon, J.,** & Chen, S. (2024 June). Fostering Computational Thinking through Game-Making Activities via 3D Sandbox. iLRN 2024 Practitioner Stream

[40] Jung, Y., Lee, Y., Byun, G., & **Moon, J**. (2024 June). Navigating the Creation of Immersive Learning Environments in Roblox: Integrating Generative AI for Enhanced Simulation-based Learning. iLRN 2024 Practitioner Stream

[39] Ham, E., & **Moon, J.** (2024 March). Effects of metaverse-based learning activity on elementary students' enjoyment and information retention. SITE 2023

[38] Lee, U., Lee, S., Jung, Y., Kim, H., Lee, Y., Byun, G., Koh, J., **Moon, J**., Lee, J, & Kim, H. (2023 December). Generative agent for teacher training: Designing educational problem-

solving simulations with large language model-based agents for pre-service teachers. Poster Presentation. NEURIPS 2023 Workshop GAIED.

[37] Lee, G., **Moon, J**., & Kim, H. (2023 November). Exploring the evolution: Topic modeling in digital textbook research trends. 2023 Conference of Joint Societies for Mathematics Education: KSESM, KSME, Korea University, South Korea.

[36] * Awoyemi, D., & **Moon, J.** (2023 October). Exploring the impact of immersive virtual reality on enhancing high school students' mathematics competence in an online learning environment. Poster Presentation. AECT 2023, Orlando, FL, United States

[35] **Moon, J**., & Choi, G. W. (2023 October). Developing the Korean EdTech/Learning Sciences Researcher Network (KELS) as a community of practice. Poster Presentation. AECT 2023, Orlando, FL, United States

[34] McNeill, L., **Moon, J**., & Edmond, C. (2023 October). Student engagement in a gamified online learning environment: A data mining approach. Oral Presentation. AECT 2023, Orlando, FL, United States

[33] * **Moon, J.,** Song, S., Awoyemi, D., Marchiori, R., Khorshid, S., Chen, X. (2023, June). Immersive technology-enhanced learning system design in civil engineering education. Poster Presentation. iLRN 2023 Practitioner Stream. Virtual.

[32] **Moon, J.,** McNeill, L., Edmonds, C. (2023, June). Gamification system design for promoting heterophily in accounting Education. Poster Presentation. iLRN 2023 Practitioner Stream. Virtual.

[31] * Awoyemi, D., & **Moon, J.** (2023, June). Teachers' integration of immersive virtual reality in enhancing mathematics competence among high school students in an online learning environment: A narrative review. Poster Presentation. iLRN 2023 Practitioner Stream. Virtual.

[30] Marchiori, R. S., Song, S., **Moon, J**., Khorshid, S. (2023). Crafting an approach to cultivate engineering competencies for undergraduate students in construction engineering with Minecraft. ASEE 2023. Baltimore, MD, United States.

[29] * Na, H. & **Moon, J**. (2023, April). Investigating computational-thinking-related behaviors of primary school students: From a large dataset on Scratch community. AERA 2023, Chicago, IL, United States.

[28] Dai, C., 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. AERA 2023, Chicago, IL, United States.

[27] Zhang, N., Barrett, A., Ke, F., **Moon, J**., & Sokolikj, Z. (2023, April). An evidence-centered model for computational thinking assessment: Longitudinal observations of autistic youths in virtual worlds. AERA 2023.

[26] * Ljeluola, S. & **Moon, J**. (2022, October). *Developing computational thinking competencies of learners with autism through 3D block design during Minecraft gameplay*. Emerging Technology Showcase, AECT 2022, Las Vegas, NV, United States.

[25] **Moon, J**., & Yeo, S. (2022, October). *Developing adaptive teacher training with educational gameplay to enhance elementary preservice teachers' TPACK development and learning engagement*. Roundtable Presentation, AECT 2022, Las Vegas, NV, United States.

[24] Stefaniak, J., McDonald, J., Lohman, L., Boer, P., Romero-Hall, E., Xinyu, R., Koehler, A., & **Moon, J.** (2022, October). *Ethnographic experiences in learning design*. Panel Session Presentation, AECT 2022, Las Vegas, NV, United States.

[23] Smith, G., Emihovich, B., **Moon, J.**, Liu, Z., & Xue, X. (2022, October). *Digital learning games and interactive learning environments: Impacting student learning across disciplines and contexts.* Panel Session Presentation, AECT 2022, Las Vegas, NV, United States.

[22] Park, Y., **Moon, J.,** & Na, H. (2022, October). *Elementary STEM teachers' open educational resources and TPACK in a professional learning network*. Poster Presentation, AECT 2022, Las Vegas, NV, United States.

[21] Barrett, A., Zhang, N., Ke, F., **Moon, J**., & Sokolikj, Z. (2022, May) Developing an evidence-centered model for computational thinking in virtual worlds with children with autism. Poster Presentation, iLRN 2022, Vienne, Austria.

[20] **Moon, J**., Ke, F., Sokolikj, Z., & Dahlstrom-Hakki, I. (2022, April*). Multimodal data fusion to detect students' cognitive-affective states during educational game play*. Poster Presentation, AERA 2022, San Diego, CA, United States.

[19] Ke, F., **Moon, J**., Sokolikj, Z. (2022, April). *Virtual-reality-based training of representational flexibility for adolescents with autism*. Symposium Presentation, AERA 2022, San Diego, CA, United States.

[18] Choi, G. W., Lim, J., Kim., S., **Moon, J**., & Jung, Y. (2021, November). *A case study of post-COVID19 elementary school teachers in Korea*. Concurrent Session Presentation, AECT 2021, Chicago, IL, United States.

[17] Park, Y., & **Moon, J**. (2020, November). *A bibliometric analysis on open educational resources (OER) and learners with disabilities*. Poster presented at AECT 2020 Convention. Jacksonville, FL, United States (Virtual).

[16] Ke, F., & **Moon, J.** (2020, April). *Exploring representational flexibility development through speech data mining*. Concurrent session presented at AERA 2020. Orlando, FL, United States.

[15] **Moon, J.**, Lee, S., & Xu, X. (2019, November). *Exploring the effect of group-collaboration design on developing preservice teachers' technology-integration skills through scientific inquiry experiences*. Roundtable presented at AECT 2019 Convention, Las Vegas, NV, United States.

[14] **Moon, J.**, & Ke, F. (2019, October). *Exploring collaborative gameplay in virtual reality-based social-skills training for children with autism*. Poster presented at APA Technology, Mind, Society Conference 2019. Washington D.C., United States.

[13] **Moon, J.**, & Ke, F. (2019, October). *Exploring students' peer interactions and gameplay patterns via sequential analysis.* Poster presented at APA Technology, Mind, Society Conference 2019. Washington D.C., United States.

[12] **Moon, J.**, Ke, F., & Kim, B. (2019, October). *Using machine learning to predict activity types and social interaction levels of children with high-functioning autism in virtual reality-based social skills training*. Poster presented at APA Technology, Mind, and Society Conference 2019. Washington D.C., United States.

[11] Ke, F., **Moon, J.**, & Sokolikj, Z. (2018, October). *Play and design based social skills training in a virtual world for children with high-functioning autism*. Paper presented at APA Technology, Mind, and Society Conference, Washington D.C., United States.

[10] Ke, F., & **Moon, J.** (2018, April). *Virtual-Reality based role-playing and design on social interaction skills development of children with high-functioning autism*. Paper presented

at AERA 2018 Annual Meeting, American Educational Research Association, New York City, NY, United States.

[9] **Moon, J.** (2017, November). *Exploring learning affordance from embodied interface of STEM-relevant immersive virtual reality educational games*. Poster presented at AECT 2017 Convention, Jacksonville, FL, United States.

[8] **Moon, J.** (2017, November). *Explorations of storytelling approaches in STEM-related immersive virtual reality educational games: The findings from in-depth video observation*. Poster presented at AECT 2017 Convention, Jacksonville, FL, United States.

[7] **Moon, J.** (2017, November). *Reorganizing action verbs and embodied activities in immersive virtual reality games: Implications for instructional design*. Poster presented at AECT 2017 Convention, Jacksonville, FL, United States.

[6] Ke, F., Xu, X., Lee, S., **Moon, J.**, Dai, Z., Pan, Y., Shute, V., Clark, K., & Erlebacher, G. (2017, April). *Math learning through game-based architectural design and building*. Paper presented at 2017 American Educational Research Association Annual Meeting, American Educational Research Association, San Antonio, TX, United States.

[5] **Moon, J.**, Xu, X., & Lee, S. (2016, October). *Embodied pulley physics: The development of hands-on user interaction in virtual reality*. Emerging Technology Showcase at AECT 2016 Convention, Las Vegas, NV, United States.

[4] **Moon, J.** (2016, October). *The effect of virtual hand movement in science simulation: The transient and human movement effect in multimedia*. Paper presented at AECT 2016 Convention, Las Vegas, NV, United States.

[3] **Moon, J.**, & Ke, F (2016, July), *Categorization of embodied user interface in immersive virtual environments*. Doctoral consortium at the meeting of ICALT 2016, Austin, TX, United States.

[2] **Moon, J.**, & Ryu, J. (2016, March). *The effects of visual cueing with illustration on eye fixation time in multimedia learning with animated pedagogical agents.* Roundtable presented at the meeting of SITE 2016, Savannah, GA, United States.

[1] **Moon, J.** (2016, March). *Classification of cognitive domains and natural user interface in immersive virtual environment*. Poster presented at the meeting of SITE 2016, Savannah, GA, United States.

WORKING PAPERS [n = 21]

Note. * indicates the work with a mentoring student

Submitted or Under Review (n = 12)

Journal Manuscript (n = 11)

[11] * Liu, Z., **Moon, J**., Liu, J., Shi, Y. (In preparation). EVSafe: An electric vehicle emergency response virtual reality training system. *Advanced Engineering Informatics*

[10] Aldemir, T., Bicer, A., Kwok, M., & **Moon, J**. (Under review). Exploring emergent AI-TPACK competencies in a two-week AI literacy module for preservice teachers. *Teaching and Teacher Education*.

[9] Aldemir, T., Bicer, Ali., Kilinc, S., **Moon, J.,** & Kwok, M. (Under review). Challenges, solutions, and PD needs for integrating AI: Insights from a two-week AI literacy module with preservice teachers. *The Teacher Educator*.

[5] * Jeong, Y., Lee, Y., Byun, G., & **Moon, J.** (Under review). Exploring game design challenges and iterative refinement: A collective autoethnography from immersive learning practitioners' voices. *Simulation & Gaming (*ESCI-indexed journal*).*

[7] * Hong, S., Eom, T., & **Moon, J**. (Under review). Virtual reality simulation to foster authentic learning in pre-service teacher education: A systematic literature review. *Educational Review Research (SSCI-indexed journal).*

[6] **Moon, J**., Jung, Y., Bae, H., Lee, U., & Kim, K. (Under review). Leveraging socio-material interactions: AI chatbots in asynchronous online learning. *Innovation in Teaching and Learning International* (SSCI-indexed journal).

[5] Marchiori, R., Song, S., **Moon, J**., Awoyemi, I., Ghooreian, A., & Ramenzapour. E., (Under review). A systematic review of technology-enhanced learning approaches to foster construction engineering and management competencies. *Computer Applications in Engineering Education* (SCIE-indexed journal).

[4] Lim, J., **Moon, J**., Kim, C., & Kang, M. (Revising to submit). Crafting digital narratives: A systematic review of scenario-based learning design in virtual reality. *Educational Research Review (*SSCI-indexed journal*).*

[3] Park, J., Bae, J., Lee, U., Ahn, T., Lee, S., Kim, D., Choi, A., **Moon, J**., Jeong, Y., & Kim, H. (Under review). How to align language model for teaching English? Developing large language model-based chatbot for English education in EFL, findings and limitations. *Multimedia Tools and Application (*SCIE-indexed journal*).*

[2] Sun, C., & **Moon, J.** (Revising to submit). 20 years of twice-exceptional students with ASD: The road so far and what is ahead. *Journal for the Education of the Gifted* (ESCI-indexed journal).

[1] Ham, E., & **Moon, J.** (Revising to submit). If A video is worth a Million, Is a metaverse worth a billion? Mixed effects of a metaverse-based learning activity on elementary students' engagement, curiosity, and information retention. *Journal of Computer Assisted Learning (*SSCI-indexed journal*)*

Book Chapter (n = 1)

[1] * Abu, S., Ogunniran, M., Awoyemi, I., Ezeihejafor, C., Dadzie, J., Uddin, M., Ghooreian, A., Mintah, R. B., & **Moon, J.** (Under review). Ethical implications of generative AI in education: Addressing bias and equity concerns. Bozkurt, A. (Eds). *Rethinking Education and Agency in the Age of Human-Generative AI Interaction.* IGI Global.

In Preparation (n = 10)

Journal Manuscript (n = 8)

[8] * Uddin, M., Luo, F., & **Moon, J**. (In preparation). Artificial intelligence for engaging neurodiverse learners in K-12 education: A systematic review. *TechTrends*.

[6] * Aldemir, T., **Moon, J.,** Awoyemi, I., Ghooreian. (In preparation). A systematic review of empirical research on AI in K-12 STEM Education through a sociotechnical lens. *Educational Technology Research and Development* (SSCI-indexed journal).
[5] * Lee, G., **Moon, J**., & Kim, H. J. (In preparation). Transformation of digital textbook research: Topic modeling. *Educational Technology & Society (*SSCI-indexed journal*).*
[4] **Moon, J.**, Lee. D., Choi, G.W., & Ha, C. (In preparation). Predicting middle and high school students' self-regulated learning patterns and academic performance via latent profile analysis and machine learning.
[3] **Moon, J**., Seo, J., & Awoyemi, I. (In preparation). Navigating social complexity: The synergistic use of ChatGPT-4 and epistemic network analysis for social skills assessment in autistic children.
[2] * Kim, S., Kim, H., & **Moon, J**. (In preparation). A systematic literature review of digital textbook and its transformation in mathematics education: Activity theory perspective.
[1] Lee, Y., **Moon, J**., & Cho, M. (In preparation). A review of eye-tracking measure integration and implementation in virtual reality-based learning environments. *Educational Review Research (SSCI-indexed journal).*

Book Chapter (n = 2)
[2] Hong, S., **Moon, J**., Hwang, J., Eom, T., & Seo. G. (Abstract submitted, In preparation). Leveraging analytics to enhance immersive teacher simulations: challenges and opportunities. Innovations in Immersive Learning for Teacher Education: International Perspectives, Springer.
[1] **Moon, J**., Na, H., Lee, Y., & Choi. G. W. (Abstract submitted, In preparation). AI-enhanced educational game design: From the content generation to testing. Engineering Educational Games for a Sustainable Society: Play, Learn, and Transform, Springer.

SERVICE ACTIVITIES

University Service & Affiliation

College-level (University of Alabama)
Faculty Affiliate, Institute of Social Science Research (2025-present)
Faculty Affiliate, The Center for Innovative Research in Autism (CIRA) (2021-present)
Faculty Affiliate, Center for Youth Development and Intervention (CYDI) (2021-present)
Faculty Affiliate (AI and Machine Learning Researcher) (2022-2024)
Search Committee Chair, Tenure-Track Faculty Search Committee (2025)
Committee Member, Tenure-Track Faculty Seach Committee (2022-2023)
Committee Member, Renewable Contract Faculty Search Committee, Instructional Technology (2024-205)
Technology Advisory Committee, College of Education (2021-present)

Department-level (ELPTS, University of Alabama)
Graduate Student Faculty Support Committee

Conference & Society

Conference

Conference Program Co-Chair (Educational Gamification and Game-based Learning Section), International Conference on Computers in Education (ICCE) 2022-2023
Conference Program Co-Chair (Practitioner Stream), International Learning Research Network (iLRN) Conference 2022-2023
Conference Program Committee, International Society of the Learning Sciences 2023
Conference Program Committee, Immersive Learning Research Network Conference 2020
KSET Convention Assistant Coordinator, AECT 2018
Reviewer, Conference Proposals, AERA, 2017
Reviewer, Conference Proposals, AECT, 2016-2022
Reviewer, International Conference of the Learning Sciences 2019-2022

Society / Association

Affiliated Faculty, ModuLabs (Appointed, 2024-present)
Communication Officer, AERA SIG Instructional Technology (Elected, 2022-2023)
Chair, APSCE SIG Educational Games and Gamification (Appointed, 2023-present)
Co-Chair, APSCE SIG Educational Games and Gamification (Appointed, 2022-2023)
Co-Chair, Immersive Learning Research Network (iLRN) (Appointed, 2021-present)
Next Generation Researcher Committee, KAEIM (Appointed, 2022-2023)

Editorship

Associate Editor – *Behaviour & Information Technology (SSCI, Q1) (2025-present)*
Editorial Board – Artificial Intelligence in Language Education (*SCOPUS*) (2025-present)
Journal Special Issue Editor – *The Mathematical Education (*Korean Journal*)(2024)*
Journal Special Issue Editor – *Journal of Applied Instructional Design (2024-present)*
Journal Special Issue Editor – *Computers and Education: X Reality* (twice) (2024-present)
Fostering Innovation at the Intersection of Maker Education and Extended Reality (XR)
Exploring Communication in Extended Reality: Advancements, Applications, and Challenges
Conference Proceeding – Immersive Learning Research Network 2023 (Practitioner Stream)
Conference Proceeding – Immersive Learning Research Network 2024 (Practitioner Stream)
Book Editor*, Korean Open Access Guide in Edutech/Learning Sciences Research*
Editorial Board, *Intelligent Information Convergence and Future Education (*Published by Intelligent Software Education Research Institute, Jeju National University, South Korea*)*
Editorial Board, *Educational Research (*Published by The Institute of Educational Research, Chonnam National University, South Korea*)*

Ad-Hoc Journal Reviewer

The Internet and Higher Education
Behaviour and Information Technology
Computers & Education
IEEE Transactions on Learning Technologies
International Journal of Design and Technology Education
Journal of Learning Analytics
British Journal of Educational Technology
British Journal of Special Education
International Journal of STEM Education
Multimedia Tools and Application
S*mart Learning Environments*
The International Review of Research in Open and Distributed Learning (IRRODL)
International Journal of Human-Computer Interaction
Technology, Knowledge, and Learning
Brain Science
TechTrends
Virtual Reality
Online Learning Journal
Education and Information Technologies
Journal of Special Education Technology
Journal of Applied Instructional Design
Journal of Moral Education
Journal of Educational Technology & Society
Innovations in Education and Teaching International
International Journal of Human-Computer Interaction
BMC Medical Education

Grant Proposal Review

National Science Foundation, United States (Panel Review / Ad-hoc Review)
Swiss National Sciences Foundation, Switzerland (Ad-hoc Review)

HONOR AND AWARD

Outstanding iLEAD Paper Award (2024). Immersive Learning Research Network Conference (iLRN) 2024

Outstanding Practitioner Paper Award (2023). Immersive Learning Research Network Conference (iLRN) 2023

Featured Emerging Scholar (2021). CIRCLS (The Center for Integrative Research in Computing and Learning Sciences)

Finalist (2016-2021), Instructional Systems and Learning Technologies Program Award, Florida State University

Travel Grants at Florida State University (2015-Present)

Finalist, Student Employee of the Year Award (2020) at Florida State University

Excellent Award (2016). DIGITECH 2016, Project Title: Virtual Ancient Asia, Florida State University

Gagne and Briggs Scholarship (2015). Instructional Systems and Learning Technologies Program, Florida State University.

CERTIFICATES

The Pittsburgh Science of Learning Center Summer School Certificate, July 2016 (OLI Track): Designing and developing Open Learning Initiative course based on XML codes