Kyungbin Kwon

Associate Professor, Instructional Systems Technology
School of Education, Indiana University
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EDUCATION

University of Missouri, Columbia, Missouri
Major: Information Science and Learning Technologies   Ph.D.   2011
Dissertation: *The effect of Self-explanation and Metacognitive scaffolding on Learning web programming*

Seoul National University, Seoul, South Korea
Major: Educational Method   M.A.   2004
Thesis: *A Study on the Developmental Process of Online Learning Activities*

Seoul National University, Seoul, South Korea
Major: Education   B.A.   1998

PROFESSIONAL EXPERIENCE

July 2020 – Present   Associate Professor, Instructional Systems Technology, Indiana University.
Jan. 2015 – Present   Associate Faculty Member, Cognitive Science Program, Indiana University.
Aug. 2014 – June 2020   Assistant Professor, Instructional Systems Technology, Indiana University.
Nov. 2010 – July 2014   Instructional Design & E-Learning Specialist, School of Medicine, University of Missouri.
Sep. 2002 – Aug. 2005   Program Coordinator, Korea National Open University, Seoul, South Korea.

AWARD

- Nominated for the *2020 Trustees Teaching Award*.
- Nominated for the School of Education's Award for *Excellence in Mentoring* for 2019-2020 academic year.
- *Technology Adoption Incentive Awards.* Indiana University, SOE Learning and Teaching With Technology. $1,000, 2019.
- *Best Paper Award* at the AERA Special Interest Group Instructional Technology (SIG-IT), 2019.
- *Appreciation Award* for supporting the Korean Society for Educational Technology (KSET) as a planner for the 2016 AECT Convention, 2016.
- *Faculty Excellence in Teaching Award* for Outstanding Clinical Curriculum Innovation, University of Missouri, School of Medicine, 2012.

PROFESSIONAL AFFILIATIONS

- American Educational Research Association

- Association for Educational Communications & Technology
- Society for Information Technology and Teacher Education

GRANT

External

- *Collaborative Research: DTI: Implementing Mixed Reality for Inclusive and Embodied Learning Experience for Young Children*. PI. Innovative Technology Experiences for Students and Teachers, National Science Foundation. $724,956, Sept., 2021- Aug., 2024.
- *AI Goes Rural: Middle School Artificial Intelligence Citizenship Education*. PI. The Department of Defense (DoD) National Defense Education Program (NDEP). $1,399,000, June, 2021- May, 2024.
- *Examining the impact of socially relevant problem-based learning curriculum at the elementary level: Students' CS interest/knowledge and teachers' implementation needs*. Co-PI with Anne Leftwich (PI) and Thomas Brush. Google Computer Science Education Research (CSER) program. $101,065, July, 2018- June, 2019.

Internal

- Learning Computational Thinking Through Augmented Reality. PI. Indiana University. Proffitt 2020 Research Grant. $9,500, 2020.
- *Computer Science Education Using Block-Based Programming in a Middle School*. PI. Indiana University. Proffitt 2018 Summer Faculty Fellowship. $10,000, 2018.
- *Support Collaborative Learning via Nudging Group Awareness Information*. PI. Indiana University, SOE Learning and Teaching With Technology Challenge Development Grants. $3,000, 2018.
- *Enhance Quality of Collaborative Learning through an Online Group Awareness Tool embedded in CANVAS*. PI. Indiana University. SOE Learning and Teaching With Technology Challenge Development Grants. $4,000, 2015.

Not funded

- Research Initiation: GAEM: Cognitive Load-Aware Engineering Modeling Powered by Deep Brain Dynamics Learning. Co-PI with Qingxue Zhang (PI). EEC - EngEd-Engineering Education, National Science Foundation. $200,000, Sept., 2021 – Aug., 2023.
- *Supporting and Sustaining Socially Relevant CS Problem-Based Learning Curriculum at the 6th Grade Level*. Co-PI with Anne Leftwich (PI). Computer Science for All, National Science Foundation. $500,308, Aug., 2019- Aug., 2022.

PUBLICATIONS

Peer-reviewed Journal Articles:

Shin, S., **Kwon, K**., & Jung, J. (2022). Collaborative Learning in the Flipped University Classroom: Identifying Team Process Factors. *Sustainability*, 14(12), 7173. https://doi.org/10.3390/su14127173

Moon, H., Cheon, J., & **Kwon, K.** (2022). Difficult Concepts and Practices of Computational Thinking Using Block-based Programming. *International Journal of Computer Science Education in Schools*, 5(3), 3-16. https://doi.org/10.21585/ijcses.v5i3.129

Kwon, K., Jeon, M., Guo, M., Yan, G., Kim, J., Ottenbreit-Leftwich, A. T., & Brush, T. A. (2021). Computational thinking practices: Lessons learned from a problem-based curriculum in primary education. *Journal of Research on Technology in Education*, 1-18. https://doi.org/10.1080/15391523.2021.2014372

Kwon, K., Ottenbreit-Leftwich, A. T., Brush, T. A., Jeon, M., & Yan, G. (2021). Integration of problem-based learning in elementary computer science education: effects on computational thinking and attitudes. *Educational Technology Research and Development*, 69(5), 2761-2787. https://doi.org/10.1007/s11423-021-10034-3

Ottenbreit-Leftwich, A. T., **Kwon, K.**, Brush, T. A., Karlin, M., Jeon, M., Jantaraweragul, K., Guo, M., Nadir, H., Gok, F., & Bhattacharya, P. (2021). The impact of an issue-centered problem-based learning curriculum on 6th grade girls' understanding of and interest in computer science. *Computers and Education Open*, 2, 100057. https://doi.org/https://doi.org/10.1016/j.caeo.2021.100057

Sankaranarayanan, R., **Kwon, K.**, & Cho, Y. (2021). Exploring the differences between individuals and groups during the problem-solving process: The collective working-memory effect and the role of collaborative interactions. *Journal of Interactive Learning Research*. 32(1), 43-66. https://www.learntechlib.org/primary/p/217515/

Kwon, K., Cheon, J., & Moon, H. (2021). Levels of problem-solving competency identified through Bebras Computing Challenge. *Education and Information Technologies*. 26, 5477–5498. https://doi.org/10.1007/s10639-021-105539

Lee, S., & **Kwon, K.** (2021). Peer assessment as a facilitating and assessment strategy in online and face-to-face classes. *International Journal of Online Pedagogy and Course Design*. 11(3), 1-13. https://doi.org/10.4018/IJOPCD.2021070103

Bae, H., Glazewski, K., Brush, T., & **Kwon, K**. (2021). Fostering transfer of responsibility in the middle school PBL classroom: an investigation of soft scaffolding. *Instructional Science*. 49, 337-363. *https://doi.org/*10.1007/s11251-021-09539-4

Bae, H., & **Kwon, K.** (2021). Developing metacognitive skills through class activities: what makes students use metacognitive skills? *Educational Studies*, 47(4), 456-471. *https://doi.org/*10.1080/03055698.2019.1707068

Gok, F., & **Kwon, K.** (2020). A case study exploring pre-service teachers' programming difficulties and strategies when learning programming languages. *Psychology and Cognitive Sciences Open Journal*, 6(1), 1-6. *https://doi.org/*10.17140/PCSOJ-6-152

Kwon, K. (2020). Student-generated awareness information in a group awareness tool: what does it reveal? *Educational Technology Research and Development*, 68, 1301-1327. *https://doi.org/*10.1007/s11423-019-09727-7

Brush, T., Ottenbreit-Leftwich, A., **Kwon, K**. & Karlin, M. (2020). Implementing Socially Relevant Problem-Based Computer Science Curriculum at the Elementary Level: Students' Computer Science Knowledge and Teachers' Implementation Needs. *Journal of Computers in Mathematics and Science Teaching*, 39(2), 109-123.

Kwon, K., Park, S., Shin, S., & Chang, C. (2019). Effects of different types of instructor comments in online discussions. *Distance Education*. 40, 226-242. *https://doi.org/*10.1080/01587919.2019.1602469

Kwon, K. & Cheon, J. (2019) Exploring problem decomposition and program development through block-based programs. *International Journal of Computer Science Education in Schools*. 3(1), 316. *https://doi.org/*10.21585/ijcses.v3i1

Kwon, K., Ottenbreit-Leftwich, A. T., Sari, A., Khlaif, Z., Zhu, M., Nadir, H.& Gok, F. (2019). Teachers' selfefficacy matters: Mobile computing device integration in middle schools. *TechTrends*. 63, 682692. *https://doi.org/*10.1007/s11528-019-00402-5

Kwon, K., & Song, D., & Sari, A., & Khikmatillaeva, U. (2019). Different types of collaborative problemsolving processes in an online environment: Solution-oriented versus problem-oriented. *Journal of Educational Computing Research*. *56*, 1277-1295. *https://doi.org/*10.1177/0735633117740395

Kwon, K., Shin, S. & Park, S. J. (2018). Effects of graphic organizers in online discussions: comparison between instructor-provided and student-generated. *Educational Technology Research and Development*. *66*, 1479-1503. *https://doi.org/*10.1007/s11423-018-9617-7

Kwon, K., Lee, S. J., & Chung, J. (2018). Computational concepts reflected on Scratch programs. *International Journal of Computer Science Education in Schools*, 2(3). https://doi.org/10.21585/ijcses.v2i3.33

Liu, Y. -H., **Kwon, K.,** & Johnson, L. P. (2018). Exploration of factors in the early collaboration phase affecting virtual groups' overall collaborative learning experiences. *Journal of Educational Computing Research*. *56*, 485-512. https://doi.org/10.1177/0735633117715034

Han, A., **Kwon, K.** (2018). Students' perception of extracurricular activities: A case study. *Journal of Advances in Education Research*. *3*, 131-141. https://doi.org/10.22606/jaer.2018.33002

Kwon, K., & Park, S. J. (2017). Effects of discussion representation: Comparisons between interaction and topic diagrams. *Instructional Science*, *45*, 469-491. https://doi.org/10.1007/s11251-017-9412-6

Kwon, K., Shin, S., Brush, T. A., Glazewski, K. D., Edelberg, T., Park, S. J., . . . Alangari, H. (2017). Inquiry learning behaviors captured through screencasts in problem-based learning. *Interactive Learning Environments*, *26*, 839-855. https://doi.org/10.1080/10494820.2017.1419496

Kwon, K. (2017). Novice programmer's misconception of programming reflected on problem-solving plans. *International Journal of Computer Science Education in Schools*, 1(4). 14-24. https://doi.org/10.21585/ijcses.v1i4.19

Khlaif, Z., Nadiruzzaman, H., & **Kwon, K.** (2017). Types of interaction in online discussion forums: A case study. *Journal of Educational Issues*, 3(1), 155-169. https://doi.org/10.5296/jei.v3i1.10975

Kwon, K., DiSilvestro, F. R., & Treff, M. E. (Fall 2016/Winter 2017). Online graduate course evaluation from both students' and peer instructors' perspectives utilizing Quality Matters. *Internet Learning*, 5(1), 7-16. https://doi.org/10.18278/il.5.1.2

Kwon, K., Saporova, D. & Hoffman, K. (2015). Online lecture capturing system: Expected and actual effects of implementation in a problem-based learning medical curriculum. *Medical Teacher*, *37*, 578-584. https://doi.org/10.3109/0142159X.2014.956060

Kwon, K., Liu, Y., & Johnson, L. (2014). Group regulation and social-emotional interactions observed in computer supported collaborative learning: Comparison between good vs. poor collaborators. *Computers & Education, 78, 185-200*. https://doi.org/10.1016/j.compedu.2014.06.004

Kwon, K., Hong, R., & Laffey, J. (2013). The educational impact of metacognitive group coordination in computer-supported collaborative learning. *Computers in Human Behavior,* 29, 1271-1281. https://doi.org/10.1016/j.chb.2013.01.003

Moore, J. L., Dickson-Deane, C., Galyen, K., Kumalasari, C., & **Kwon, K**. (2012). The ZONE learning community: Gaining knowledge through mentoring. *First Monday*, 17(9). https://doi.org/10.5210/fm.v0i0.3748

Kwon, K., & Jonassen, D. (2011). The influence of reflective self-explanations on problem-solving performance. *Journal of Educational Computing Research, 44*, 243-259. https://doi.org/10.2190/EC.44.3.a

Kwon, K., Kumalasari, C. D., & Howland, J. L. (2011). Self-explanation prompts on problem-solving performance in an interactive learning environment. *Journal of Interactive Online Learning, 10*, 96-112. https://doi.org/10.18848/1447-9494/CGP/v17i02/46899

Kwon, K., Han, D., Bang, E., & Armstrong, S. (2010). Feelings of isolation and coping mechanism in online learning environments: A case study of Asian international students. *The International Journal of Learning*, 17, 343-356. https://doi.org/10.18848/1447-9494/CGP/v17i02/46899

Song, S., & **Kwon, K**. (2006). The role of center for teaching and learning for higher education: From cases of USA. *Korean Journal of Educational Technology*, 22(3), 167-185. Retrieved from https://www.kset.or.kr

Book Chapter:

Frick, T., Dagli, C., **Kwon, K.**, & Tomita, K. (2018). Indiana university plagiarism tutorials and tests: 14 years of worldwide learning online. In B. Hokanson, G. Clinton, & K. Kaminski (Eds.), *Educational Technology and Narrative: Story and Instructional Design* (pp. 191-205). Cham: Springer International Publishing.

Other publication:

Cho, Y., Boling, E., & **Kwon, K.** (2017). Improving human learning and performance at Indiana university. *Performance Improvement*, 56(3), 34-44. doi:10.1002/pfi.21695

Under review:

Gok, F., **Kwon, K.**, Ottenbreit-Leftwich, A., Liao, Y. J., & Bomkamp, J. (Under review). *Investigating Professional Development Needs of High School Computer Science Teachers*.

Nadir, H., Glazewski, K, Brush, T. A., & **Kwon, K.** (Under review). *When middle school children engage in making: Understanding the roles of scaffolding for troubleshooting to support their inquiry learning.*

Jeon, M., & **Kwon, K.** (Under review). *Parallel Instructions of Block-based and Text-based Programming: On Novice Programmers' Computational Thinking Practices.*

Invited Presentations:

o Learning Computational Thinking Through Bodily Movements from an Embodied Cognition Perspective (May 2022). The 4th International Conference on Computer Science and Technologies in Education. Virtual Conference.

o Innovations in higher education through Artificial Intelligence (Jan. 2022). The 9th International Forum on Innovation in Higher Education. Korea, Sungkyunkwan University.

o *AI Education in K-12: What to teach and how to teach?* (Oct. 2021). The 21st International Conference on Education Research. Korea, Seoul National University.

o *When Embodied Cognition Met AR: Marriage between Mind and Body* (Nov. 2020). Emerging Trends and Issues of Educational Technology in Korea and the U.S.: Predicting the Future. Annual Conference of the Association for Educational Communications and Technology (AECT).

o *Computer-Supported Collaborative Learning & the next phases* (June 2019). Korea, Seoul National University; Pukyong National University.

o *Support Collaborative Learning via Nudging Group Awareness Information* (Feb. 2019). Learning and Teaching with Technology Faculty Showcase. Indiana University.

o *Evaluation of computational thinking: Reveal students' misconceptions* (Oct. 2018). The 4th International Science, Mathematics and Technology Education Conference (ISMTEC). Bangkok, Thailand.

o *Computer science education using block-based programming in a middle school* (Oct. 2018). R&D Internal Grants Poster Session. Indiana University.

o *Design and development of group awareness tool for online collaborative learning (Jan. 2016).* Learning and Teaching with Technology Faculty Showcase. Indiana University.

Peer-reviewed Conference Proceedings:

Moon, H., Cheon, J., & **Kwon, K.** (2019). Exploring Undergraduate Students' Patterns and Challenges of Computational Thinking (CT) Practice in an Online Environment. *Proceedings of Association for Educational Communications and Technology (AECT).* Las Vegas, Nevada.

Kwon, K., Park, S., Shin, S., & Chang, C. (2019). Three types of instructor facilitation in online discussion. *Proceedings of Annual Conference of the American Educational Research Association (AERA).* Toronto, Canada.

Nadir, H., Glazewski, K. D., Brush, T., & **Kwon, K.** (2019). When middle school kids make: Understanding the roles of scaffolding for troubleshooting to support inquiry. *Proceedings of Annual Conference of the American Educational Research Association (AERA).* Toronto, Canada.

Brush, T., Ottenbreit-Leftwich, A., **Kwon, K.**, & Karlin, M. (2019). Implementing socially relevant problem-based computer science curriculum at the elementary level: Students' computer science knowledge and teachers' implementation needs. *Proceedings of the 30th annual conference of the Society for Information Technology and Teacher Education (SITE)*. Las Vegas, Nevada.

Bae, H., Glazewski, K., Brush, T., & **Kwon, K.** (2018). Fostering transfer of responsibility in the middle school problem-based learning classroom: An investigation of dialogic scaffolds. *Proceedings of Annual Conference of the American Educational Research Association (AERA).* New York, NY.

Kwon, K. (2017). Student's evaluations of group process via a group awareness tool. In J. Johnston (Ed.), *Proceedings of EdMedia 2017* (pp. 440-445). Washington, DC: Association for the Advancement of Computing in Education (AACE). Retrieved January 3, 2018 from https://www.learntechlib.org/p/178344/.

Kwon, K., Liu, Y., & Johnson, L. (2015). Factors that influence learner's perception of group process within a computer supported collaborative learning environment. *Preceedings of Annual Conference of the American Educational Research Association (AERA).* Chicago, IL.

Kwon, K., & Hong, R. (2012). Group awareness support in promoting online collaborative learning. *Preceedings of Annual Conference of the Ed-Media.* Denver, CO.

Kwon, K., & Graber, G. (2010). Facilitating constructive online discussion using graphical representation. *Preceedings of Annual Conference of the American Educational Research Association (AERA).* Denver, CO.

Kwon, K., Kumalasari, C., & Howland, J. (2010). Effects of self-explanation strategies on learning troubleshooting. *Preceedings of Annual Conference of the American Educational Research Association (AERA).* Denver, CO.

Jonassen, D.H., Cho, Y.H., Easter, M., Henry, H., & **Kwon, K.** (2010). Eliciting counterarguments in ethics problems. *Preceedings of Annual Conference of the American Educational Research Association (AERA).* Denver, CO.

& Moore, J. L. (2009). Constructing programming concept and detecting misconception with self-explanation. *Preceedings of the Annual Conference of the Association for Educational Communications and Technology(AECT).* Louisville, KY.

Jonassen, D.H., Cho, Y.H., **Kwon, K.**, Henry, H., & Easter, M. (2009). Facilitating argumentation in illstructured problem solving. *Paper presented at the biennial conference of the European Association for Research on Learning and Instruction,* Amsterdam, Netherlands.

Kwon, K., & Liu, P. (2009). Effective metacognition in cooperative learning: A case study. *Preceedings of Annual Conference of the American Educational Research Association (AERA).* San Diego, CA.

Jonassen, D.H., Cho, Y.H., Easter, M., Henry, H., **Kwon, K**, & Shen, D. (2009). Evaluating vs. constructing arguments. *Preceedings of Annual Conference of the American Educational Research Association (AERA).* San Diego, CA.

Galyen, K., Kumalasari, C., & **Kwon, K**. (2008). The Digital Media ZONE: A model for online digital media instruction. *Preceedings of Annual Conference of the E-Learn.* Las Vegas, NV.

Kwon, K., & Cho, K. (2008). Focus of peer comments and its effect on writing. *Preceedings of Annual Conference of the American Educational Research Association (AERA).* New York, NY.

Cho, K., Schunn, C. D., & **Kwon, K**. (2007). Learning writing by reviewing. *Proceedings of Annual Conference of the Computer-Supported Collaborative Learning (CSCL).* New Jersey.

Professional Presentations:

Kwon, K., Jeon, M., Nadir, H., Sankaranarayanan, R., Gok, S., Chavez, N., & Lee, H. (2021). *Embodied learning for computational thinking education* [Concurrent Presentation]*.* Annual Conference of the Association for Educational Communications and Technology (AECT). Chicago, IL.

Jeon, M., **Kwon, K**. & Bae, H. (2021). *Effects of Graphic Organizers in Asynchronous Online Discussions* [Roundtable]*.* Annual Conference of the Association for Educational Communications and Technology (AECT). Chicago, IL.

Phillips, T., Jeon, M., Jantaraweragul, K., & **Kwon, K.** (2021). *An Exploration of the Relationship Between Social Media Usage and Undergraduate School Satisfaction* [Roundtable]*.* Annual Conference of the Association for Educational Communications and Technology (AECT). Chicago, IL.

Brush, T., Ottenbreit-Leftwich, A., & **Kwon, K**. (2021). *Implementing a problem-based computer science curriculum with elementary students: Impact on knowledge, skills, and attitudes* [Interactive Paper Sessions]. PBL 2021 online conference.

Brush, T., Glazewski, K., **Kwon, K**., & Ottenbreit-Leftwich, A. (2021). *Supporting PBL Practice in K-12 Education: The Wise Practice Video Case Database (WPCD)* [Interactive Poster Presentations]. PBL 2021 online conference.

Shin, S., **Kwon, K.,** Jung, J., & Song, J. (2021). Collaborative learning in the flipped university classroom: Identifying team process factors. AERA Annual Meeting.

Guo. M., Yan. G., Kim. J., Jeon. M., **Kwon. K**, Leftwich, A., & Brush, T. (2021). Coding patterns and techniques in sixth graders' block-based programming projects. AERA Annual Meeting.

Kwon, K., Cheon, J., & Moon, H. (2020). *Evaluation of computational thinking (CT) through Bebras challenge.* Annual Conference of the Association for Educational Communications and Technology (AECT). Virtual.

Jeon, M., & **Kwon, K**. (2020). *Novice programmers' understanding and implementations of CS concepts: Focusing on the problem solving represented in the programming environments with different modalities*. Annual Conference of the Association for Educational Communications and Technology (AECT). Virtual.

Sankaranarayanan, R., **Kwon, K.**, & Cho, Y. (2020). *The collective working-memory effect and the role of collaborative interactions*. Annual Conference of the Association for Educational Communications and Technology (AECT). Virtual.

Weintrop, D., Choi, G. W., Maltese, A., Tissenbaum, M., Fofang, J. S., Walton, M., Walkoe, J., Scott, J., Jung, Y. J., Zimmerman, H. T., DeLiema, D., Dahn, M., Kim, S. H., Copeland, A., Yang, J., Simpson, A., Knox, P., Kim, J., Chan, M., Holbert, N., Flynn, L., **Kwon, K**., OttenbreitLeftwich, A., Brush, T., & Blikstein, P. (2020). What Does Computer Science and Maker Education Look Like in 2030?. 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. 1519-1524). Nashville, Tennessee: International Society of the Learning Sciences.

Kim, Y., D'Angelo, C., Cafaro, F., Ochoa, X., Espino, D., Kline, A., Hamilton, E., Lee, S., Butail, S., Liu, L., Trajkova, M., Tscholl, M., Hwang, J., Lee, S., & **Kwon, K**. (2020). Multimodal Data Analytics for Assessing Collaborative Interactions. In Gresalfi, M. and Horn, I. S. (Eds.), *The Interdisciplinarity of the Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020*, Volume 5 (pp. 2547-2554). Nashville, Tennessee: International Society of the Learning Sciences.

Kwon, K., Leftwich, A., Brush, T. & Jeon, M. (2020, Apr 17 - 21) *Effects of Problem-Based Learning Curriculum for Computer Science Education in an Elementary School* [Paper Session]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/wl5lak9 (Conference Canceled)

Moon, H., Cheon, J. & **Kwon, K.** (2020, Apr 17 - 21). *An Exploration of the Role of Affective Factors on Computational Thinking and Problem Solving* [Paper Session]. AERA Annual Meeting San Francisco, CAhttp://tinyurl.com/wuldmf9 (Conference Canceled)

Leftwich, A., Brush, T. & **Kwon, K.** (2020, Apr 17 - 21) *Teaching Computational Thinking With Socially Relevant Problems at the Elementary Level* [Structured Poster Session]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/y3x6b9ny (Conference Canceled)

Kwon, K. (2019). *Evaluation of Computational Thinking Reflected in Scratch Projects.* Presented at the 20th Annual Conference of the KOCSEA Technical Symposium. Atlanta, GA.

Gok, F. & **Kwon, K.** (2019). *Investigating Professional Development Needs of High School Computer Science Teachers.* Presented at the Annual Conference of the Association for Educational Communications and Technology (AECT). Las Vegas, Nevada.

Kwon, K., Ottenbreit-Leftwich, A., Brush, T., Jeon, M., Zhu, M., & Gok, F. (2019). Exploring 6th-grade students' CT concepts and practices. *Presented at the Annual Conference of the Association for Educational Communications and Technology (AECT).* Las Vegas, Nevada.

Ottenbreit-Leftwich, A., Brush, T., **Kwon, K.**, Karlin, M., … & Dalkilic, M. (2019). Inspiring the Next Generation of Learners: Using Socially Relevant Computer Science (CS) Problem-Based Learning Curriculum at the 6th Grade Level. *Presented at the Annual Conference of the Association for Educational Communications and Technology (AECT).* Las Vegas, Nevada.

Kwon, K., & Cheon, J. (2019). After-school coding club: What students learned and how teachers should teach. *Presented at the Annual Conference of the American Educational Research Association (AERA).* Toronto, Canada.

Bae, H., & **Kwon, K.** (2019). Teachability of metacognitive skills: What makes students use metacognitive skills? *Presented at the Annual Conference of the American Educational Research Association (AERA).* Toronto, Canada.

Hur, G., & **Kwon, K.** (2018). A study on the network analysis of research trends to Scratch programming for smart education: Case of Korea. *Presented at the Annual Conference of the Global Conference on Education and Research (GLCER).* Las Vegas, Nevada.

Kwon, K., Khlaif, Z., Zhu, M., Nadiruzzaman, H., Gok, F., & Sari, A. (2017). Teacher's self-efficacy toward mobile technology matters. *Presented at the Annual Conference of the Association for Educational Communications and Technology (AECT).* Jacksonville, FL.

Meina, Z., Bae, H., **Kwon, K.**, & Park, J. (2017). The effect of instructor guidance on the quality of online discussion. *Presented at the Annual Conference of the Association for Educational Communications and Technology (AECT).* Jacksonville, FL.

Bae, H., & **Kwon, K.** (2017). Increasing students' implementation of metacognitive strategies: What makes students use metacognitive strategies? *Presented at the Annual Conference of the Association for Educational Communications and Technology (AECT).* Jacksonville, FL.

Kwon, K. & Park, S. (2016). Facilitate meaningful discussion through visual representations. *Presented at the Annual Conference of the Association for Educational Communications and Technology (AECT)*. Las Vegas, Nevada.

Kwon, K., Shin, S., Khlaif, Z., Nadiruzzaman, H., Park, S., Edelberg. T., Brush, T. A., & Alangari, H. (2016). Screen-casting inquiry behaviors: What can see through students' mobile devices? *Presented at the Annual Conference of the Korean-American Educational Research Association*. Washington, D.C.

Khlaif, Z., Nadiruzzaman, H., & **Kwon, K.** (2016). An analysis of participation and interaction patterns in online learning community: A case study. *Presented at the Annual Conference of the American Educational Research Association*. Washington, D.C.

Kwon, K. (2015). Practice test as a class activity for pre-service teacher education. *Presented at the Annual Conference of the Association for Educational Communications and Technology (AECT)*. Indianapolis, Indiana.

Liu, Y., Johnson, L., & **Kwon, K.** (2013). A road from the uncertainty to negotiation – Virtual asynchronous collaboration. *Presented at the Annual Conference of the E-Learn.* Victoria, Canada.

Kwon, K., Brown, R., Mudd-Hutcheson, C., Wilden, P., Martin, A., & Clay, R. (2013). Use of educational technologies for Medprep programs. *Presented at the Central/Southern Group on Student Affairs annual meeting*. St Louis, MO.

Mudd-Hutchenson, C., Brown, R., **Kwon, K**., Wilden, P., Martin, A., & Clay, R. (2013). Mizzou MedprepAn evolution of a continuum to help prepare individuals to become patient-centered physicians. *Presented at the Central/Southern Group on Student Affairs annual meeting*. St Louis, MO.

Brown, R., **Kwon, K.**, Wilden, P., & Mudd-Hutcheson, C. (2012). Mizzou MedPrep: A New Approach to the medical school diversity pipeline. *Presented at the Central Group on Educational Affairs*. St Louis, MO.

Brown, R., **Kwon, K.,** Wilden, P., Martin, A., & Mudd-Hutcheson, C. (2012). The Mizzou MedPrep program. *Presented at the Central/Southern Group on Student Affairs annual meeting*. Clearwater, FL.

Kwon, K., Han, D. & Bang, E. (2010). Learning social issues by arguing: Practical implementation to sociology education. *Presented at the Annual Conference of the E-Learn.* Orlando, FL.

Kwon, K., & Liu, P. (2008). Peer collaboration and decision making: What makes collaboration effective? *Presented at the Annual Conference of the Association for Educational Communications and Technology (AECT)*. Orlando, Florida.

Kwon, K., & Henry, H. (2008). Facilitating argumentation with tailored guidance. *Presented at the Annual Conference of the Association for Educational Communications and Technology (AECT)*. Orlando, Florida.

Kwon, K. (2006). Research on the developmental process of online group activities. *Presented at the Annual Conference of the Association for Educational Communications and Technology (AECT)*. Dallas, Texas.

TEACHING

Indiana University Graduate:

- R511 - Instructional Technology Foundations
- R521 - Instructional Design and Development (*f2f & online*)
- R541 - Instructional Development and Production I
- R547 - Computer-Mediated Learning (*online*)
- R685 - Topical Seminar: Instructional Design for Computer-Supported Collaborative Learning (*online*)
- R695 – Doctoral Colloquium & Seminar

Indiana University Undergraduate:

- W220 - Technical Issues: Computer-Based Education

University of Missouri Graduate:

- IS&LT 7370 - Intermediate Web Development (*online*)

Korea National Open University (Seoul, South Korea) Undergraduate:

- Educational Psychology
- Methodology for Adult Education

DISSERTATION CHAIR

Indiana University

- John Jones, Ed.D. Instructional Systems Technology, 2021
- Rajagopal Sankaranarayanan, Ph.D. Instructional Systems Technology, 2022

DISSERTATION COMMITTEE

Indiana University

- Darcy Ann Janzen, Ed.D. Instructional Systems Technology, 2019
- Michael Karlin, Ph.D. Instructional Systems Technology, 2019
- Su Jin Park, Ph.D. Literacy Culture, and Language Education, 2019
- Meina Zhu, Ph.D. Instructional Systems Technology, 2019
- Shuya Xu, Ph.D. Instructional Systems Technology, 2018
- Ozgur Ozdemir, Ph.D. Instructional Systems Technology, 2018
- Wenjing Zheng, Ph.D. Special Education, 2017
- Funda Ergulec, Ph.D. Instructional Systems Technology, 2017
- Olgun Sadik, Ph.D. Instructional Systems Technology, 2016

- Suhkyung Shin, Ph.D. Instructional Systems Technology, 2016

PROFESSIONAL SERVICE

Editorial Board:

- Psychology and Cognitive Sciences – Open Journal (since 2018)
- International Journal for Educational Media and Technology (since 2015)
- International Journal of Computer Science Education in Schools (since 2019)

Journal reviews:

- Computers & Education (2014, 2016, 2017, 2018, 2019, 2020)
- Instructional Science (2017, 2018)
- Educational Technology Research and Development (2019, 2020, 2021)
- Journal of Educational Computing Research (2018, 2019, 2020, 2021)
- International Journal of Computer Science Education in Schools (2018, 2019, 2020)
- Computer Communication & Collaboration (2013)
- The Asia-Pacific Education Researcher (2016, 2018)
- International Journal for Educational Media and Technology (2015, 2017, 2021)
- Interdisciplinary Journal of Problem-Based Learning (2014, 2016, 2018, 2019, 2020)
- Learning and Individual Differences (2019)
- TechTrends (2018, 2019, 2020)
- Psychology and Cognitive Sciences – Open Journal (2019, 2020, 2021)
- KEDI Journal of Educational Policy (2017)
- Journal of Interactive Online Learning (2011)

Conference Reviews:

- American Educational Research Association (AERA)
- Association for Educational Communications and Technology (AECT)
- Global Conference on Education and Research (GLCER)

National & International Service:

- Chair, Board of Directors, Korean-American Educational Researchers Association (KAERA), 2022 – present.
- Co-Chair, Computational Thinking SIG, Society for Information Technology and Teacher Education (SITE), 2022 – present.
- Advisory research member of Seoul Educational Policy Institute, 2019 – present.
- Advisory Committee, Education for Social Responsibility (ESR) Center, Pusan National University, 2022 – present.
- Board of Directors member, Korean-American Educational Researchers Association (KAERA), 2020 – 2022.
- Program committee, Big10CSMaker Conference, Bloomington, IN, 2019.

- Committee of Korean-American Educational Researchers Association (KAERA) Outstanding Research Paper Award, Chair: 2019-2020; Committee member: 2018-2019.
- DDL Crystal Award reviewer, AECT Division of Distance Learning, 2017.
- DDL Journal Article Award reviewer, AECT Division of Distance Learning, 2017.
- Co-chair, KAERA Conference, 2016-2018.
- Planner, AECT 2016 Convention, 2015-2016.
- Facilitator, Celebration of Teaching Conference, 2011-2012.
- Facilitator, Association for Educational Communications and Technology Annual Meeting, 2008.

University & School Service:

- International Programs Committee, School of Education, Indiana University, 2021 – present.
- Graduate Studies Committee, School of Education, Indiana University, 2020 – present.
- Diversity Equity and Inclusion Ambassador, School of Education, Indiana University, 2020 – present.
- Learning and Teaching with Technology Committee, School of Education, Indiana University, 2018 – 2021.
- Faculty Affairs Committee, School of Education, Indiana University, 2017 – 2020.
- Research collaborator with Jacobs Educator Award recipient (Leon Tynes), 2019.
- Staff Merit Awards Committee, Indiana University, 2014-2017.
- Discussant, Preparing Future Faculty Conference, Jan. 2015.
- Facilitator, Celebration of Teaching Annual Meeting, 2011-2014.
- Mentor, TeAchnology Workshop, 2011 and 2013.

Other:

- Coach, Robotics Club, Childs Elementary School, Bloomington, IN, 2019-present.
- Board Member, Child Development Center, Columbia, MO, Jan. 2007-June 2010.
- Volunteer Teacher, Columbia Korean School, Columbia, MO, Jan. 2006-Dec. 2006.
- Media Mission Director, Columbia Korean Baptist Church, Columbia, MO, Jan. 2006-2014.

CERTIFICATION

- Indiana Computer Education (2015): Indiana CORE Assessments for educator licensure.
- QualityMatters Certified Peer Reviewer (2010): Quality Matters (QM) is a faculty-centered, peer review process that is designed to certify the quality of online and blended courses.
- Cognitive Coaching Seminars® Foundation Training – Days 1-4 (2012): Cognitive Coaching is a model that supports individuals and organizations in becoming self-directed, and in turn, become self-managing, self-monitoring and self-modifying.