BEAUMIE KIM

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EDUCATION

Ph.D. University of Georgia, Athens, GA (Instructional Technology, August 2004)
    Dissertation: Rethinking Cognitive Tool: Its Concept, Design, Application, and Research
M.Ed. University of Georgia, Athens, GA (Instructional Technology, May 2000)
B.S. Hanyang University, Seoul, Korea (Educational Technology, February 1998)

MAJOR APPOINTMENTS

2021-   Professor, Werklund School of Education, University of Calgary
2013-2021 Associate Professor, Werklund School of Education, University of Calgary
2006-2012 Assistant Professor, Learning Sciences Lab/Learning Sciences and Technologies Academic Group,
          National Institute of Education, Nanyang Technological University
2004-2006 Design Researcher, Center for Educational Technologies, Wheeling Jesuit University

SELECTED PUBLICATIONS

Ostrowdun, C. & Kim, B. (in press). Learning with fossils: The interplay of boundary objects and museum educators' talk in knowledge brokering. *Museum Management and Curatorship.* Advanced online publication. https://doi.org/10.1080/09647775.2021.2023908

Baradaran Rahimi, F. & Kim, B. (2023). Playce-making: Transformation of space in a participatory game design project. *Learning, Media and Technology, 48*(3), 387-400. https://doi.org/10.1080/17439884.2022.2059764

Kim, B., Bastani, R., & Takeuchi, M. A. (2023). Embodied mathematical practices in (re)designing board games in a linguistically diverse classroom. *Pedagogies: An International Journal, 18*(2), 289-310. https://doi.org/10.1080/1554480X.2021.2013232

Baradaran Rahimi, F., Boyd, J. E., Eiserman, J. R., Levy, R. M., & Kim, B. (2022). Museum beyond physical walls: an exploration of virtual reality-enhanced experience in an exhibition-like space. *Virtual Reality, 26*, 1471–1488. https://doi.org/10.1007/S10055-022-00643-5

Sengupta, P., Takeuchi, M. A., Kim, B., Shanahan, M-C., Koh, K., & Preciado-Babb, A. P. (2022). Knowing and learning in proleptic boundary spaces: Re-imagining the Learning Sciences. In M-C. Shanahan, B. Kim, M. A. Takeuchi, K. Koh, A. P. Preciado-Babb, & P. Sengupta (Eds.), *The learning sciences in conversation: Theories, methodologies, and boundary spaces.* Routledge. https://doi.org/10.4324/9781003089728-2

Kim, B., Clark, D. B., Friesen, S., & Jacobsen, M. (2022). Engaging in design discourse with learning scientists. In M-C. Shanahan, B. Kim, M. A. Takeuchi, K. Koh, A. P. Preciado-Babb, & P. Sengupta (Eds.), *The learning sciences in conversation: Theories, methodologies, and boundary spaces.* Routledge. https://doi.org/10.4324/9781003089728-10

Friesen, S., Clark, D. B., Kim, B., & Jacobsen, M. (2022). Continuing the design discourse in the Learning Sciences. In M-C. Shanahan, B. Kim, M. A. Takeuchi, K. Koh, A. P. Preciado-Babb, & P. Sengupta (Eds.), *The learning sciences in conversation: Theories, methodologies, and boundary spaces.* Routledge. https://doi.org/10.4324/9781003089728-15

Takeuchi, M. A., Vadeboncoeur, J. A., Krishnamoorthy, R., Hladik, S., Rahm, J., Kim, B., & Clark, D. B. (2022). Refiguring and transforming the learning sciences: A dialogical field-in-the-making. In M-C. Shanahan, B. Kim, M. A. Takeuchi, K. Koh, A. P. Preciado-Babb, & P. Sengupta (Eds.), *The learning sciences in conversation: Theories, methodologies, and boundary spaces. Routledge.* https://doi.org/10.4324/9781003089728-29

Kim, B. & Tan, L. (2022). Design thinking the future: Critical perspectives on design studies, design knowledge and education. In L. Tan & B. Kim (Eds), *Design praxiology and phenomenology: Understanding ways of knowing through inventive practices.* Springer. https://doi.org/10.1007/978-981-19-2806-2_1

Gatti Junior, W., Kim, B., & Tan, L. (2022). Looking inside the box to think outside it: Contextualizing design thinking. In L. Tan & B. Kim (Eds), *Design praxiology and phenomenology: Understanding ways of knowing through inventive practices.* Springer. https://doi.org/10.1007/978-981-19-2806-2_2

Ho, W. & Kim, B. (2022). Learning as subversive design practice: Graffiti artists' learning of social structure and invention of creative expression. In L. Tan & B. Kim (Eds), *Design praxiology and phenomenology: Understanding ways of knowing through inventive practices.* Springer. https://doi.org/10.1007/978-981-19-2806-2_3

Tan, L. & Kim, B. (2022). Ludic epistemology and evocative design in inventive practices. In L. Tan & B. Kim (Eds), *Design praxiology and phenomenology: Understanding ways of knowing through inventive practices.* Springer. https://doi.org/10.1007/978-981-19-2806-2_13

Baradaran Rahimi, F. & Kim, B. (2021). Learning through redesigning a game in the STEM classroom. *Simulation & Gaming, 52*(6), 753-774. https://doi.org/10.1177/10468781211039260

Baradaran Rahimi, F., Kim, B., Levy, R., & Boyd, J. (2020). A game design plot: exploring the educational potentials of history-based video games. *IEEE Transactions on Games*, *12*(3), 312–322. https://doi.org/10.1109/TG.2019.2954880

Gatti Junior, W., Kim, B., Lai, X. & Liu, L. (2020). Green Economy game: A modular design approach for sustainable development education. *International Journal of Designs for Learning, 11*(2), 96-107. https://doi.org/10.14434/ijdl.v11i2.25020

Kim, B., Rasporich, S., & Gupta, D. (2019). Imagining the sustainable future through the construction of fantasy worlds. In P. Sengupta, M-C. Shanahan, & B. Kim (Eds.), *Critical, transdisciplinary and embodied approaches in STEM education* (pp.61-82). Springer. https://doi.org/10.1007/978-3-030-29489-2_4

Tan, L. & Kim, B. (2019). Adolescents' agentic work on developing personal pedagogies on social media. *Literacy, 53*(4), 196-205. https://doi.org/10.1111/lit.12180

Baradaran Rahimi, F. & Kim, B. (2019). The role of interest-driven participatory game design: considering design literacy within a technology classroom. *International Journal of Technology and Design Education, 29*(2), 387-404. https://doi.org/10.1007/s10798-018-9451-6

Gupta, D. & Kim, B. (2018). Minecraft aesthetics: Interactions for critical thinking. *International Journal of Gaming and Computer-Medicated Simulations Education, 10*(4), 20-41. https://doi.org/10.4018/IJGCMS.2018100102

Kim, B. (2018). Things in common in learning communities. *Instructional Science*, *46*(4), 627–631. http://doi.org/10.1007/s11251-018-9464-2

Kim, B. & Ho, W. (2018). Emergent social practices of Singapore students: the role of laughter and humour in educational gameplay. *International Journal of Child-Computer Interaction, 16,* 85-99. https://doi.org/10.1016/j.ijcci.2018.01.001

Kim, B. & Bastani, R. (2017). Students as game designers: Transdisciplinary approach to STEAM education. *Alberta Science Education Journal, 45* (1), 45-52.

Kim, B., Pathak, S. A., Jacobson, M. J., Zhang, B., & Gobert, J. D. (2015). Cycles of exploration, reflection, and consolidation in model-based learning of genetics. *Journal of Science Education and Technology, 24*(6), 789–802. https://doi.org/10.1007/s10956-015-9564-6.

Kim, B., Tan, L., & Bielaczyc, K. (2015). Learner-generated designs in participatory culture: what they are and how they are shaping learning. *Interactive Learning Environments, 23* (5), 545-555. https://doi.org/10.1080/10494820.2015.1067974.

Jacobson, M. J., Kim, B., Pathak, S., & Zhang, B. (2015). To guide or not to guide: Issues in the sequencing of pedagogical structure in computational model-based learning. *Interactive Learning Environments*, *23*(6), 715–730. https://doi.org/10.1080/10494820.2013.792845

Tan, L., & Kim, B. (2015). Learning by doing in the digital media age: the contention of learning in adolescents' literacy practices. In Lin, T., Chen, V., & Chai, C.S. (Eds.), *New media and learning in the 21st century: a sociocultural perspective (Education Innovation in Singapore Series)* (pp.181-197). Springer. https://doi.org/10.1007/978-981-287-326-2_12

Wang, X., Kim, B., Lee, J. W. Y. & Kim, M. (2014). Encouraging and being encouraged: Development of an epistemic community and teacher professional development in the classroom. *Teaching and Teacher Education, 44*, 12-24. https://doi.org/10.1016/j.tate.2014.07.009

Kim, B., Tan, L., & Tan, S. C. (2014). "Perhaps this can be for education": learners' cultural models for educational game design. In M. Orey, S. A. Jones, & R. M. Branch (Eds.), *Educational Media and Technology Yearbook* (Vol. 38) (pp.25-46). Springer. https://doi.org/10.1007/978-3-319-06314-0_3

Kim, B., Tan, L., & Kim, M. S. (2013). The affordances of informant design in educational game development. *International Journal of Arts and Technology (IJART), 6* (3), 215-228. https://doi.org/10.1504/IJART.2013.055388

Wu, L., Looi, C. K., Kim, B., & Miao, C. (2013). Immersive environments for learning: Towards holistic curricular. In R. Huang, Kinshuk, & J. M. Spector (Eds.), *Reshaping Learning - Frontiers of Learning Technology in a Global Context.* (pp. 365-384). Springer. https://doi.org/10.1007/978-3-642-32301-0_16

Kim, B., Lossman, H. G., & Hay, K. E. (2012). Learners' informal ideas and model creation for conceptual change. In Lee, C. B. & Jonassen, D. H. (Eds.), *Fostering Conceptual Change with Technology: Asian Perspectives* (pp. 119-140). Cengage Learning Asia.

Pathak, S. A., Kim, B., Jacobson, M. J., & Zhang, B. H. (2011). Learning the physics of electricity: A qualitative analysis of collaborative processes involved in productive failure. *International Journal of Computer-Supported Collaborative Learning, 6*(1), 57-73. https://doi.org/10.1007/s11412-010-9099-z

Wang, X., Kim, B., & Kim, M. S. (2011). Extrapolating from students' preconceptions to 'scientific' consensus: Singapore secondary students' conversation on Earth. *The Asia-Pacific Education Researcher, 20*(2), 261-275.

Jacobson, M. J., Kim, B., Miao, C., Shen, Z., & Chavez, M. (2010). Design perspectives for learning in virtual worlds. In M. J. Jacobson & P. Reimann (Eds.), *Designs for learning environments of the future: International perspectives from the learning science* (pp. 111-142). Springer. https://doi.org/10.1007/978-0-387-88279-6_5

Tan, S. C., Kim, B., & Yeo, J. (2010). Learning with technology: learner voice and agency. In M. Orey, S.A. Jones, & R. M. Branch (Eds.), *Educational Media and Technology Yearbook* (Vol. 35) (pp. 117-134.). Springer. https://doi.org/10.1007/978-1-4419-1516-0_8

Liu, X., Zhang, B. H., Liang, L., Fulmer, G., Kim, B., & Yuan, H. (2009). Alignment between the physics content standard and standardized test: A comparison among US-NY, Singapore, and China-Jiangsu. *Science Education, 93*(5), 777-797. https://doi.org/10.1002/sce.20330

Kim, B. & Reeves, T. C. (2007). Reframing research on learning with technology: In search of the meaning of cognitive tools. *Instructional Science, 35* (3), 207-256. https://doi.org/10.1007/s11251-006-9005-2

Hay, K. E., & Kim, B. (2007). Integrated temporal multimedia data (ITMD) research system. In R. Goldman, R. Pea, B. Barron & S. Derry (Eds.), *Video research in the learning sciences* (pp. 521-536). Lawrence Earlbaum.

SELECTED PROJECTS AS PRINCIPAL INVESTIGATOR

University of Calgary

Playing and redesigning culturally-relevant tabletop games: Sustaining cultural and linguistic pluralism in public learning environments (04/2020, 36 months, $96,134). Social Science and Humanities Research Council, Insight Grant.

Developing mathematical literacy and mathematics identity through game design (05/2017, 24 months, $49,825). Alberta Research Network Grant. Alberta.

Students as game designers: Exploring the role of students' game design literacies in collaborative project-based learning (10/2015, 12 months, $16,340). Werklund School of Education's Partner Research School Initiative, University of Calgary.

Expressing and communicating emotions with digital art and music creation (04/2015, 12 months, $1,500). SSHRC Partnership Development Grant application matching funds from Werklund School of Education.

Creating a Playful Culture of Learning with Gameful Assessment: Avatars, Experience Points and Boss Battles in a Graduate Course (7/2014, 24 months). Werklund School of Education's Teaching Innovation Grant at the University of Calgary ($12,490).

National Institute of Education, Nanyang Technological University

Playing and Learning with Dinosaurs In and Out of School Boundaries: Games, Discourse, Shared Spaces for Earth Science Education (7/2010, 27 months, OER 29/09 BK, S$249,980).

Serious Immersion and Embodied Understanding: Traces of Dinosaurs in Earth System Science (09/2007, 36 months). National Research Foundation, through Ministry of Education Interactive & Digital Media research programme (NRF2007-IDM003-068, S$1,034, 040).

Virtual Space Exploration: Observing, Modeling, and Understanding Astronomical Phenomena (03/2007, 24 months). NTU faculty Start-Up Grant (S$97,530).

SELECTED LEADERSHIP AND SERVICES

Professional Organizations

Network of the Learning Sciences in Canada (NLSC)
    Advisory Board (2021-present)

Canadian Society of Studies in Education (CSSE)
>   Founding President, Learning Sciences Special Interest Group (SIG-LS), Canadian Education Research Association (CERA) (2019-2021)

International Society for STEM in Education (ISSE)
>   Member, Executive Committee (2016-present)
>   Symposium Co-Chair, International Society for STEM in Education (ISSE) (2017)

International Conference on Computers in Education (ICCE)
>   Member, Program Committee (2007-2020)
>   Chair, Learning Sciences Subconference (2016)
>   Co-Chair, Learning Sciences Subconference co-chair (2015, 2017)

Editorial Services and Reviews

Interactive Learning Environments (ILE) Journal
>   Editorial Board Member, (2015-present)
>   Guest Editor of a Special Issue (Learner-generated designs in participatory culture) (2013-2015)

Editorial Board Member, Innovation and Education Journal (2019-present)
Editorial Board Member, Brain, Digital, & Learning (2017-present)
Editorial Board Member, an International Journal for Design-Based Research in Education (2016-present)

RECENT TEACHING AND SUPERVISION

Graduate Courses

EDER 603/701: Research Methods (Design-Based Research) (Winter 2015, 2016, 2017, 2019, 2022)
EDER 603/606: Writing Educational Research (Spring 2018, 2021)
EDER 604/692: Collaboratory of practice (Winter 2019, 2021)
EDER 603: Program and Practice Evaluation (Summer 2020)
EDER 678: Technological Literacies (Fall 2020)
EDER 678: Sustainable Collaborative Creativity in Professional Practice (Winter 2021)
EDER 679: Design-Based Learning (Summer 2014, 2016, 2018)
EDER 679: Digital Game-Based Learning (Summer 2013, 2014, 2015, 2017)
EDER 772/678: Advanced Seminar on Design (Winter 2017, 2018)
EDER 779: Advanced Seminar on Design and Practice (Summer 2015, 2017) (Design only 2021, 2023)
EDER 775: Advanced Seminar on Technology-Enabled Learning Environments (Winter 2013, 2014, Summer 2015)

Student Supervision

Wilian Gatti Junior (PhD, December 2022), University of Calgary, Canada
Somi Lee (EdD, September 2022), University of Calgary, Canada
Reyhaneh Bastani (PhD, May 2022), University of Calgary, Canada
Diali Gupta (PhD, June 2020), University of Calgary, Canada
Rob Carver (EdD, June 2019), University of Calgary, Canada
Chris Ostrowski (MA, August 2016), University of Calgary, Canada
Jason Lee Wen Yau (PhD, May 2013), National Institute of Education/Nanyang Technological University, Singapore