

# BEAUMIE KIM

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Werklund School of Education

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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)

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## 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

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## SELECTED PUBLICATIONS

- 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>
- 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.
- 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.
- 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.
- Baradaran Rahimi, F. & Kim, B. (2022). Playce-making: Transformation of space in a participatory game design project. *Learning, Media and Technology*, 1–14. <https://doi.org/10.1080/17439884.2022.2059764>
- Ostrowdun, C. & Kim, B. (2022). Learning with fossils: The interplay of boundary objects and museum educators' talk in knowledge brokering. *Museum Management and Curatorship*.  
<https://doi.org/10.1080/09647775.2021.2023908>
- 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](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-Mediated 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](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](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](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](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](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.

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### 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).

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### SELECTED LEADERSHIP AND SERVICES

#### Professional Organizations

- Canadian Society of Studies in Education (CSSE)  
 Founding President, Learning Sciences Special Interest Group (SIG-LS), Canadian Education Research Association (CERA) (2019-present)
- 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-present)  
 Chair, Learning Sciences Subconference (2016)  
 Co-Chair, Learning Sciences Subconference co-chair (2015, 2017)

#### Editorial Services and Reviews

- Member, Editorial Board, Interactive Learning Environments (ILE) Journal (2015-present)
- Member, Editorial Board, Innovation and Education Journal (2019-present)
- Member, Editorial Board, Brain, Digital, & Learning (2017-present)
- Member, Editorial Board, EDeR, an International Journal for Design-Based Research in Education (2016-present)