

Curriculum Vitae



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EDUCATION

- Mar. 1984 - Mar. 1988 Georgia State University, Ph.D.
 - Specialization: Educational Foundations with emphasis on
 Computers in Education
 Dissertation: Using Color, Graphics, and Animation in a Computer
 Assisted Tutorial Lesson
- Sep. 1980 - Feb. 1999 Korea University, Ph.D.
 Specialization: Educational Sociology with emphasis on Computers in
 Education
 Dissertation: An Analysis of Communications in Two Cyberspace
 Learning Communities
- Sep. 1978 - Feb. 1980 Korea University, M.A. in Educational Sociology, South Korea
- Mar. 1974 - Feb. 1978 Kongju National University, B.A. in English Education, South Korea

TEACHING & WORKING EXPERIENCES

- Jan. 2011 - Present Professor & Director
 Educational Technology and Game Studio, Boise State University,
 USA
- Mar. 1991 - Dec. 2010 Assistant Professor, Associate Professor, Professor
 Korea National University of Education, South Korea
- Aug. 2006 - Aug. 2007 Visiting Professor
 University of Cincinnati, USA
- Jul. 2000 - Aug. 2000 Adjunct Visiting Professor

	<i>The University of British Columbia, BC, Canada</i>
Jul. 1999 - Aug. 1999	Adjunct Visiting Professor & Noted Scholar <i>The University of British Columbia, BC, Canada</i>
Jul. 1998 - Aug. 1998	Adjunct Visiting Professor <i>The University of British Columbia, BC, Canada</i>
Mar. 1989 - Feb. 1991	Senior Researcher <i>Computer Education Research Center, Korean Educational Development Institute, South Korea</i>
Mar. 1980 - Feb. 1981	Teacher <i>Yesan High School, Yesan, South Korea</i>
Mar. 1978 - Sep. 1978	Teacher <i>Koduk Middle School, Yesan, South Korea</i>

ACTIVITIES & HONOURS

Oct. 2010	<i>AECT ECT Foundation Robert E. deKieffer International Fellowship</i>
Oct. 2007	Delegate of Korea <i>OECD expert meeting on Videogames and Education at Santiago de Chile, Chile, October, 29-31.</i>
Mar. 2005	A Minister Citation for Contribution to Online <i>Training (Minister of Employment and Labor, 2005)</i> , South Korea
2000 - 2001	Co-Researcher <i>Cyber Counseling Project, Educational Technology Development Center, Tokyo Technology College, Japan</i>
2000 - 2001	Co-Director <i>Department of Curriculum Studies, On-Line Learning Web Site Development Project, University of British Columbia, Canada</i>
1999 - 2004	Special Invited Professor <i>Teachers College, YanBian University, China</i>
Aug. 1998	Noted Scholar <i>Faculty of Education, University of British Columbia, Canada</i>
Nov. 1990	Delegate of Korea <i>Intergovernmental Committee of Intergovernmental Informatics Program, Paris, UNESCO</i>
Jun. 1990	Delegate of Korea

*Cyber Counseling Project, Educational Technology Development
Center, Tokyo Technology College, Japan*

CURRENT RESEARCH INTEREST

Design of Instructional Mobile Games, Robotics in STEM,
Learning with Mobile Games,
Game-Based Learning

BOOKS

Edited Books

- Baek, Y. (2017). *Game-Based Learning: Theory, Strategies and Performance Outcomes* (Eds.), Nova Science Publishers, Inc.
- Baek, Y., Ko, R., and Marsh, T. (2014) *Trends and Applications of Serious Gaming and Social Media* (Eds.), N.Y: Springer.
- Baek, Y. (2013) *Psychology of Gaming* (Eds.), N.Y.: Nova Science Publishers, Inc.
- Baek, Y. & Whitton, N. (2013). *Cases on Digital Game-Based Learning: Methods, Models and Strategies* (Eds.). New York: IGI Global.
- Baek, Y. (2010). *Gaming for Classroom-Based Learning: Digital Role Playing as a Motivator of Study* (Eds.). New York: IGI Global.
- Gibson, D. & Baek, Y. (2009). *Digital Simulations for Improving Education: Learning Through Artificial Teaching Environments* (Eds.). New York: IGI Global.

Authored Books

- Baek, Y. (2010). *Teaching and Learning in a Virtual World*. Seoul: Hakjisa.
- Baek, Y., et al. (2006). *Data Analysis Using SPSS* (4th Eds.). Seoul: Hakjisa.
- Baek, Y., et al. (2006). *Educational Technology and Methods: In ubiquitous world* (2nd Eds.). Seoul: Hakjisa.
- Baek, Y. (2006). *Understanding and Application of Game Based Learning*. Seoul: Kyoyookkwahaksa.
- Baek, Y., et al. (2006). *Theory and Practice of Educational Media*. Seoul: Mun-um Publishing Co.
- Baek, Y. (2005). *Understanding and Application of Edutainment*. Seoul: Jung-il Publishing Co.
- Baek, Y., et al. (2004). *Secondary School ICT Utilization Class to Easily Prepare*, Seoul: Donganet.
- Baek, Y., et al. (2004). *Elementary School ICT Utilization Class to Easily Prepare*, Seoul: Donganet.
- Baek, Y., et al. (2003). *Practical Use of ICT in Education*. Seoul: Mun-um Publishing Co.
- Baek, Y., et al. (2002). *Click Computer World* (a textbook approved by superintendent of education). Seoul: DooSanDongA.
- Baek, Y., et al. (2002). *High School Information Society and Computer TextBook*. Seoul: ChoongAng Institute for Better Education.
- Baek, Y., et al. (2001). *Computer and Life* (a textbook approved by superintendent of education). Seoul: ChoongAng Institute for Better Education.

- Baek, Y., et al. (2000). *Middle School Computer TextBook*. Seoul: ChoongAng Institute for Better Education.
- Baek, Y., et al. (2000). *Education@Internet*. Seoul: Yangsuwon.
- Baek, Y., et al. (1999). *Preparation of Web-based Learning Environment and Development Tools*. Seoul: Wonmisa.
- Baek, Y. (1999). *A Design of Web-based Learning*. Seoul: Yangsuwon.
- Baek, Y., et al. (1999). *Information Communication General*. Seoul Metropolitan Office of Education.
- Baek, Y. (1998). *Multi-media Pedagogy*. Seoul: Yangsuwon.
- Baek, Y., et al. (1997). *Internet and Education*. Seoul: Yangsuwon.
- Baek, Y. (1995). *Design of Software for Studying*. Seoul: Kyoyookkwahaksa.
- Baek, Y., et al. (1995). *Educational Method and Educational Technology*. Seoul: Yangsuwon.
- Baek, Y., et al. (1995). *DOS, Easy to Learn*. Seoul: Daeha Publishing Co.
- Baek, Y., et al. (1995). *Computer Communication*. Seoul: Daeha Publishing Co.
- Baek, Y., et al. (1995). *Introduction to Computer*. Seoul: Daeha Publishing Co.
- Baek, Y., et al. (1994). *Computer Classroom for Children*. Seoul: Kihanjae.
- Baek, Y., et al. (1994). *Investigation of Teaching-Learning Methods Using Computer as a Media*. Seoul: Kyoyookkwahaksa.
- Baek, Y. (1994). *Exploration of Teaching-Learning Method*. Seoul: Kyoyookkwahaksa.
- Baek, Y., et al. (1993). *Middle School Computer*. Ministry of Education.
- Baek, Y., et al. (1993). *The Use of SPSS/PC+ for Statistical Analysis*. Seoul: Hakjisa.
- Baek, Y., et al. (1993). *BASIC, Easy to Learn (Intermediate)*. Seoul: Hyungsul Publishing Co.
- Baek, Y., et al. (1992). *Education and Computer (Revised Eds.)*. Seoul: Yangsuwon.
- Baek, Y., et al. (1992). *BASIC, Easy to Learn (Beginner's)*. Seoul: Hyungsul Publishing Co.
- Baek, Y., et al. (1992). *LOGO Programming for Improving Thinking Faculty*. Seoul: Yangsuwon.
- Baek, Y., et al. (1992). *LOGO Programming*. Seoul: Yangsuwon.
- Baek, Y., et al. (1992). *Education and Computer (Revised Eds.)*. Seoul: Yangsuwon.
- Baek, Y., et al. (1990). *Educational Method and Educational Technology*. Seoul: Dongmunsa, Aug.
- Baek, Y., et al. (1990). *The Latest BASIC Programming for Teachers and Students*. Seoul: Chipmundang.
- Baek, Y., et al. (1989). *Design of Computer Aided Instruction*. Seoul: Yangsuwon.

Translated Books

- Baek, Y. (2011). Nicola Whitton, *Learning with Digital Games* (Trans.). Routledge Inc, Seoul: Hakjisa.
- Baek, Y. (2003). Dick & Carey, *Systematic Teaching Design Theory* (Trans.). Seoul: Academy Press.
- Baek, Y. (2003). *A Design of Multimedia Utilization Teaching* (Trans.). Seoul: HakJISa.
- Baek, Y. (1996). *Language Education and Computer* (Trans.). Seoul: Shinahsa.
- Baek, Y. & Ryu, H. (1990). Papert, S., *LOGO: Children and Computer* (Trans.). Seoul: Yangsuwon.
- Baek, Y. (1983). *Modern Society and Occupation* (Trans). Seoul: Kyoyookkwahaksa.

BOOK Chapters

- Touati, A. and Baek, Y. (2017). Collaboration or Competition? Toward a Better Understanding of Conceptual Differences in Mobile Learning Games. In Baek, Y. (Eds.), *Game-Based Learning: Theory, Strategies and Performance Outcomes*. Nova Science Publishers, Inc. N.Y.
- Cheong, D., Baek, Y., & Kim, Heo-Kyeong (2011). Pre-service teachers' teaching practice in Second Life. In Randy Hinrichs and Charles Wankel (Eds.), *Transforming Virtual World Learning* (pp. 67-84). Bingley, UK: Emerald Publishing.
- Baek, Y. & Kim, H. (2011). Designing and Developing the Virtual English Adventure in Second Life. In Harrison Hao Yang and Steve Chi-Yin Yuen (Eds.), *Handbook of Research on Practices and Outcomes in Virtual Worlds and Environments* (pp.686-705). Information Science Reference.
- Kim, B. & Baek, Y. (2010). Exploring ideas and possibilities of Second Life as an Advanced E-learning Environment. In Harrison Hao Yang, & Steve Chi-Yin Yuen (Eds.), *Handbook of Research on Practices and Outcomes in E-Learning: Issues and Trends* (pp. 165-181). Hershey, PA: IGI-Global.
- Park, H. & Baek, Y. (2009). Empirical Evidence and Practical Cases for Using Virtual Worlds in Educational Contexts. In Harrison Hao Yang, & Steve Chi-Yin Yuen (Eds.), *Collective Intelligence and E-Learning 2.0: Implications of Web-Based Communities and Networking* (pp.227-246). IGI-Global.
- Seo, K., Sowa, P., Schmidt, C. Baek, Y., Byk, A., & Cheong, D. (2009). "Online Dialogue on Instructional Technology among Education Students in Republic of Korea, the United Arab Emirates, and the United States of America", In Maddux, C. (Ed.). *Research Highlights in Technology and Teacher Education* (303-310), SITE, 2009.
- Baek, Y. (2008). Revealing New Hidden Curriculum of Digital Games, Richard E. Fertig (ed., pp.1025-1040), *Handbook of Research on Effective Electronic Gaming in Education*. IGI-Global.
- Park, H., Baek, Y., & Gibson, D. (2008). Design of an adaptive mobile learning management system. In J. Lumsden (Ed.), *Handbook of Research on User Interface Design and Evaluation for Mobile Technology* (pp.285-300). Volume 1, New York: Information Science Reference.
- Baek, Y. (2002). Learning Activities in Online Game. In Y. S. Kim, M. H. Kang, & J.S. Jeong (Eds.) *The New Trend of Educational Technology*. Seoul: Kyoyookkwahaksas.

DOCTORAL DISSERTATION

- Baek, Y. (1999). An analysis of communications in two cyberspace learning communities. *Unpublished Doctoral Dissertation*, Korea University.
- Baek, Y. (1988). Using Color, Graphics, and Animation in a Computer-Assisted Learning Tutorial Lesson. *Unpublished Doctoral Dissertation*, Georgia State University.

JOURNAL PUBLICATION

Publication in Journal

- Baek, Y. and Touati, A. (2018). Comparing collaborative and cooperative game play for academic and gaming achievements. *Computers & Education* (in revision).
- Touati, A. and Baek, Y. (2018). What leads to player's enjoyment and achievement in a mobile learning game? *Journal of Educational Computing Research*, 56(3), 344-368.
<https://doi.org/10.1177/0735633117713022>
- Taylor, K. and Baek, Y. (2017). Collaborative Robotics, more than just working in groups. *Journal of Educational Computing Research*. <https://doi.org/10.1177/0735633117731382>
- Jung, B., Kim, Y., and Baek, Y. (2017). What Makes a Mobile Learning Game Enjoyable? *The Journal of Educational Information and Media*, 23 (3), 373-395.
<http://dx.doi.org/10.15833/KAFEAM.23.3.373>
- Baek, J., Yoo, Y., Lee, K., Jung, B. and Baek, Y. (2017). Using an instant messenger to learn a foreign language in a peer-tutoring environment. *The Turkish Online Journal of Educational Technology*, 16 (2), 145-152.
- Baek, Y. and Touati, A. (2017). Exploring How Individual Traits Influence Enjoyment in a Mobile Learning Game. *Computers in Human Behavior*, 69(C), 347-357.
<http://dx.doi.org/10.1016/j.chb.2016.12.053>
- Baek, Y., Zhang, H., and Yun, S. (2017). Teachers' Attitudes towards Mobile Learning in Korea. *The Turkish Online Journal of Educational Technology*, 16 (1), 154-163.
- Ching, Y.,-H., Yang, D., Baek, Y., & Baldwin, S. (2016). Enhancing graduate students' reflection in E-portfolios using TPACK framework. *Australasian Journal of Educational Technology*, Vol. 32(5), 108-122. doi:<http://dx.doi.org/10.14742/ajet.2830>
- Baek, Y., Xu Y., Han, S., and Cho J. (2015). Exploring Effects of Intrinsic Motivation and Prior Knowledge on Student Achievements in Game-based Learning, *Smart Computing Review*, 5(5), 368-377.
- Uz, C. B., Baek, Y., and Park, H. (2015). How Debriefing Strategies Can Improve Student Motivation and Self-Efficacy in Game-Based Learning. *Journal of Educational Computing Research*, Vol. 53 (2), 155-182. doi:10.1177/0735633115598496
- Choi, B., Huang, J., Jeffrey, A., & Baek, Y. (2013). Development of a scale for fantasy state in digital games. *Computers in Human Behavior*, 29(5), 1980-1986. doi:
<http://dx.doi.org/10.1016/j.chb.2013.04.007> (Correspondence Author)
- Huang, J., Baek, Y., & Cho, J. (2012). Technology-Supported Storytelling (TSST) strategy in virtual world for multicultural education. *Communications in Computer and Information Science*, vol. 341, pp. 101-108.
- Choi, B. & Baek, Y. (2011). Exploring factors of media characteristic influencing Flow in learning through virtual worlds. *Computers & Education*, Vol. 57 (2011) 2382–2394.
- Xu, Y., Park, H., & Baek, Y. (2011). A new approach toward digital storytelling: An activity focused on writing self-efficacy in a virtual learning environment. *Educational Technology & Society*, 14 (4), 181-191.
- Kim, B., Park, H., & Baek, Y. (2009). Not just fun, but serious strategies: Using meta-cognitive strategies in game-based learning. *Computers & Education*, 52(4), May 2009, 800-810.
- Kim, B., Cheong, D., & Baek, Y. (2008). Research directions of teaching simulations developing: Through the analysis of teaching simulations for American teacher education. *Journal of Educational Technology*, 24(3), 209-240.

- Baek, Y. (2008). What hinders teachers in using computer and video games in the classroom? Exploring factors *inhibiting the uptake of computer and video games*. *CyberPsychology and Behavior*, 11(6), 665-671.
- Yun, S., Miller, P., Baek, Y., & Jung, J. (2008). Improving recall and transfer skills through vocabulary building in web-based second language learning: An examination by item and feedback type. *Educational Technology and Society*, 11(4), 158-172.
- Park, H. & Baek, Y. (2007). Design of learning contents focus on game to support the mobile learning. *Korea Association of Information Education*, 11(2), 167-176. ISSN 1598-0170.
- Baek, Y., et al. (2005). An analysis of the key factors in flow and game play intention of educational online games. *Journal of Educational Technology Studies*, 21(3), 1-32.
- Baek, Y., et al. (2004). The effect of learner's game and learning ability on logical thinking ability in game-based learning, *Educational Information Media Study*, 10(4), 119-140.
- Baek, Y., et al. (2003). A preference analysis of web-based learning data types by gender and cognitive mode. *Science of Education Study*, 7, 67-92.
- Baek, Y., et al. (2003). The effect of graphic data type and child cognition mode on mathematics and space perceptivity formation in web environment, *Korean Journal of Educational Research*, 41, 457-489.
- Baek, Y. (2002). A study on effects of an educational game, *Game Industrial Journal*, 2002 Autumn Issue.
- Baek, Y., et al. (2000). An effect on study accomplishment by concept types in hypermedia education environment, *Korean Journal of Educational Research*. 38(3).
- Baek, Y., et al. (2000). An effect on study accomplishment by faithfulness levels of computer simulation according to a learner's cognition mode, *Education Information Broadcast Study*. 6(2).
- Baek, Y. (1998). A study on cooperation learning through internet (2), Case Study, *Korean Journal of Educational Research*, 36(3), 193-223.
- Baek, Y., et al. (1997). The effect of information processing strategy on learner's metacognition process through hypermedia learning, *Journal of Educational Research*, 35(4).
- Baek, Y., et al. (1996). Effects of the directive, guided, and discovering teaching methods in the use of database on problem solving process, *Journal of Educational Technology Studies*, 12(2), 27-56.
- Baek, Y., et al. (1996). Effects of the level of learner's meta-cognition and the type of hyper-text on the performance of learning tasks, *Journal of Educational Research*, 34(3), 123-144.
- Baek, Y. (1996). Directions of information processing education in schooling. *Journal of Information Processing Studies*, 3(2), 23-29.
- Baek, Y., et al. (1995). Education and teachers' role in the multi-media age. *Journal of Private Education Studies*, 73, 46-55.
- Baek, Y. et al. (1995). Education and teachers' role in the information technology age. *Journal of Better Education*, 7(1), 30-43.
- Baek, Y., et al. (1995). Discussion on the design of CAI based on the learning theory of constructivism. *Journal of Educational Computing Studies*, 2(1), 131-152.
- Baek, Y., et al. (1994). A study on the development of evaluation instruments of educational computer games. *Journal of Educational Research*, 32(5), 91-108.

- Baek, Y., et al. (1993). A study on the effects of LOGO programming teaching method on problem solving ability. *Journal of Educational Technology Studies*, 9(1), 73-90.
- Baek, Y., et al. (1993). Design of intelligent (ICAI) program teaching addition and subtraction of fractional numbers. *Journal of Educational Technology Studies*, 8(1), 103-109.
- Baek, Y., et al. (1992). Error analysis in learning LOGO programming. *Journal of Educational Computing Studies*, 1(1), 77-99.
- Baek, Y., et al. (1990). A way to improve computer education in Korea. *Journal of Better Education*, Spring.
- Baek, Y., et al. (1989). Expert system: How to approach in education. *Journal of Educational Technology Studies*, 5(1).
- Baek, Y., et al. (1989). A foundation research to introduce expert system in education. *The Korean Society for the Study of Information Science*, 7(3).
- Baek, Y., et al. (1988). Color, graphics, and animation in a computer assisted learning tutorial lesson. *Journal of Computer-Based Instruction*, 15(4). Pp.131-135.
- Baek, Y., et al. (1988). Psychological approach to computer programming. *Journal of Educational Technology Studies*. 4(1).
- Baek, Y., et al. (1988). An examination of learning theory on computer simulation in occupational education. *Journal of Occupational Education Studies*.

Research Monographs

- Baek, Y. (2004, May-June). E-learning activation and role of tutor, *Educational Development*, 31(3), 80-85.
- Baek, Y., et al. (2004). *The study on construction and utilization of teacher's resource center for classroom class improvement*. InterJungbo Co., Ltd.
- Baek, Y., et al. (2003). *Educational direction and assignment of education administration information - mainly on collection and management of student information-*, Policy Study Assignment. Korea Ministry of Education and Human Resources Development.
- Baek, Y., et al. (2003, April). A Study on Educational Game Market Analysis and Development Strategy. *KGDI* (Korean Game Development Institute).
- Baek, Y., et al. (2003, March). A design and implementation of an electronic board supporting web-based discussion learning, *Education Information Broadcast Study*, 9(1), 193-221.
- Baek, Y., et al. (2003, January). *A design of an educational game using learning objects*. 2003 Winter Korea Game Society General Meeting and Conference.
- Baek, Y. (2002, December). A study on effect factors and assignment of educational game and learning method. 2002 KGDI journal study collection, *KGDI* (Korean Game Development Institute), 211-224.
- Baek, Y., et al. (2002). A study on cyber education for school education assistance (2) (*Study Report RRC 2002-22*). Korea Institute of Curriculum and Evaluation.
- Baek, et al. (2002). A basic study on teaching and learning Data DB construction between KICE and Offices of Education (*RRC 2002-21*), Korea Institute of Curriculum and Evaluation.
- Baek, Y., et al. (2002). A study on instructive information content expansion for juveniles (*Study Report 02-R14*). Korea Institute for Youth Development.
- Baek, Y., et al. (2002, December). *A study on a New Informatization Equipment Construction Model for school informatization*. Korea Education and Research Information Service.

- Baek, Y., et al. (2002, September). *A study on an analysis of information-based utilization education form*. Korea Education and Research Information Service.
- Baek, Y., et al. (2002). The actual condition and direction of an ICT utilization education policy, The actual condition and prospect of ICT utilization education in Korean elementary and secondary school (*Study Data ORM 2002-8.*), Korea Institute of Curriculum and Evaluation,
- Baek, Y., et al. (2002). *A study on the development direction of electronic textbook / reference book*, Korean Electronic Book Consortium.
- Baek, Y. (2001). *A study on cyber education for school education assistance (1)*, Korea Institute of Curriculum and Evaluation.
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- Baek, Y. (2000, October). Publishing activity class through web. *Monthly Edunet*.
- Baek, Y. (2000, September). A way to use On-line pen pal for class. *Monthly Edunet*.
- Baek, Y. (2000, August). A way to use the internet for a class with a project. *Monthly Edunet*.
- Baek, Y., et al. (2000, July). Application of web utilization cases by message exchanging. *Monthly Edunet*.
- Baek, Y. (2000, June). Application of foreign web utilization class cases to our education. *Monthly Edunet*.
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- Baek, Y. (2000, January). Resource based learning theory. *Monthly New Education*.
- Baek, Y. (1999, November). Problem centered learning theory, *Monthly New Education*.
- Baek, Y. (1998). A study on interface standardization of educational multimedia software (Co-study, *Study Report RR 98-4*), Multimedia Educational Assistance Center.
- Baek, Y. (1998, November). The present development situation and effective utilization plan of multimedia education data, 'Silla University Sponsorship Academic Seminar' *Digital Times Educational Methodology and Teaching – Learning Strategy* ', an Announcement Paper.
- Baek, Y. (1997, December). *Educational technology media utilization and classroom change*. Kyeong-gi Education.
- Baek, Y. (1997, May). *Structure and issues of web based instruction*. Paper presented at Educational Technology Seminar of Seoul National University.
- Baek, Y., et al. (1997, February). *A study on the information model of primary and secondary education - centered on the project of accelerating the implementation of educational information*. Multimedia Education Research Center attached to KEDI.
- Baek, Y. (1996, July 48). Use of educational software. *Daejeon Science Studies*, 7, 63-77.
- Baek, Y. (1996, June). Suggestions on internet education. *New Education*, 26-34.
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- Baek, Y. (1994, November). Learning in Schooling and CAI. *Chungbuk Science Studies*.
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Broadcasting and Communication Education, Korea Broadcasting and Communication University.

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- Baek, Y., et al. (1990). *A study on the development of system courseware for learning information database* (CR 90-5). KEDI Commissioned Research.
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- Baek, Y., et al. (1990). *A report on the function of computer system in schooling* (KEDI-CERC RM 90-10). KEDI Computer Education Research Center.
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- Baek, Y., et al. (1990). *Suggestions on CAI program development milieu for educational computer* (KEDI-CERC 90-2).
- Baek, Y., et al. (1989). A study on the development of school management information system (1) (*KEDI, RR 89-02*).
- Baek, Y., et al. (1989). *A scheme to introduce expert system into designing CAI program*. A Project funded by KEDI.
- Baek, Y., et al. (1989, August). *A study on the development of expert system of career education (I)*. Chungang Educational Training Institute.
- Baek, Y. (1989, February). Pedagogical meaning of human intelligence. *New Education*.
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- Baek, Y. (1980). *A study on the development of educational reform model*. Education Department of Graduate School of Korea University.

Computer Programs

- Jung, B. and Baek, Y. (2017). OVITII (Open Vision Technology In Internet), College of Education, University of Hawaii. <https://ovitii.coe.hawaii.edu>
- Baek, Y., et al. (2007.12-2008.3.30). Development of web contents for career education and teaching-learning mathematics (Level of 10-second) on vacation high school. Seoul Metropolitan Office of Education.
- Baek, Y. (2002. 11). Overseas educational site information offer service. Korea Education and Research Information Service.
- Baek, Y., et al. (2002. 11). The study on design and development of an input device and an evaluation program for excellent professor/education data sorting. "KICE professor education development center", Korea Institute of Curriculum and Evaluation.
- Baek, Y., et al. (2001). Elementary school science Y multimedia data development. Korea Education and Research Information Service.

- Baek, Y., et al. (2000. 9). The study of design for education data digitalizing. Edutopia (Co.,Ltd).
- Baek, Y., et al. (2000. 9). Basic study for activation of ClickQ translation program. ClickQ (Co.,Ltd).
- Baek, Y., et al. (2000. 5). The study of constructing a website based on elementary and secondary curriculum. Korea Education and Research Information Service.
- Baek, Y., et al. (1998. 12). Educational utilization study of the internet. Korea Mistry of Education Policy Development Study.
- Baek, Y., et al. (1998. 12). The study on prototype development of virtual experiment and practice. Multimedia Educational Assistance Center, MiRaeNet.
- Baek, Y., et al. (1998. 11). Instruction design and database design of the text-book for science cyber-learning. Multimedia, Incom (Co., Ltd).
- Baek, Y., et al. (1997. 11). The study on development of distance training system for in-service teacher. Multimedia Educational Assistance Center.
- Baek, Y., et al. (1997. 10). The study of prototype development for mathematics digital text-book. Multimedia Educational Assistance Center.
- Baek, Y., et al. (1996. 11). Educational software (8 volumes). Ministry of Education and KEDI.
- Baek, Y., et al. (1996). Psychological testing management system. Hanjisa, Papers for Degree
- Baek, Y., et al. (1995. 10). Educational Software (21 volumes). Ministry of Education and KEDI.
- Baek, Y. (1994. 11). Fractional number game, Heungbujon (Using intelligent teaching system). Research Project of Computer Education funded by Seoul Metropolitan Office of Education.
- Baek, Y. (1994. 1. 31). Integrated packages for teaching- "Word Processor, Database, Spreadsheet, Graphic Package, Korean LOGO". Research Project of Computer Education funded by Seoul Metropolitan Office of Education.
- Baek, Y. (1992. 2). Career Guidance/Education System. Chungang Educational Training Institute.
- Baek, Y. (1989. 12). Scholastic achievement processing program for aiding school affairs. KEDI.

CONFERENCE PRESENTATION

- Yang, D., Swanson, S. R., Chittoori, B, & Baek, Y. (2018). "Work in Progress: Integrating Computational Thinking in STEM Education Through a Project-Based Learning Approach". *2018 ASEE Annual Conference & Exposition*, 22640-1 - 22640-10.
- Ching, Y.-H., Yang, D., Wang, S., Baek, Y., & Bhaskar, C. (2018). Improving student attitudes in STEM through a project-based robotics curriculum. *AERA* April 13-April 17, 2018, New York.
- Yang, D., Ching, Y.-H., Chittoori, B. C. S., Wang, S., Swanson, S., & Baek, Y. (2018, June). Integrating computational thinking in STEM education through a project-based learning approach. *American Society for Engineering Education (ASEE) Annual Conference and Exposition*. Salt Lake City, Utah: American Society for Engineering Education.
- Jung, B., and Baek, Y. (2017). *Design an on-off site learning support system*. ICoME (International Conference for Media), University of Hawaii, Honolulu, HI USA August 1 ~ August 4, 2017.

- Baek, Y., Zhang, H., Yun, S. & Cui, X. (2017). Comparing Collaboration with Cooperation in Game-Based Learning, *a paper presented at the ICAT2E2017*, Qingdao, China. March 19-21, 2017.
- Yun, S., Zhang, H., Baek, Y., & Cui, X. (2016). How do Korean Teachers Think Mobile Learning in Teaching and Learning? A paper presented at SAI 2016 STEM-ATEM-ICEM Joint International Conference, Kookmin University, Seoul Korea. September 23-25, 2016. Proceedings 111-113.
- Jin, W., Baek, Y., & Kim, D. (2016). A Service Design of Hybrid Employment Guidance Coaching on Internet. A paper presented at SAI 2016 STEM-ATEM-ICEM Joint International Conference, Kookmin University, Seoul Korea. September 23-25, 2016. Proceedings 173-174.
- Ching, Y.-H., Baek, J., Hsu, Y.-C., & Baek, Y. (2016). Mobile and social technologies supported ESL writing: A study in middle school. Association for Educational Communications and Technology (AECT) Annual International Convention, Las Vegas, NV, USA. October 17-21, 2016.
- Huang, J., & Baek, Y. (2013), *Exploring effects of Technology-Supported Storytelling (TSST) strategy in virtual world for multicultural education*. A paper presented at AERA 2013, San Francisco, April 28, 2013.
- Baek, Y. (2012). Keynote speech, Serious Games and Social Connect 2012, "*Educational Implications of Social Network Games*," Singapore, October 4, 2012.
- Choi, B., Huang, J., Kim, Y., & Baek, Y. (2012). Designing a Social Network Game: EarthQuest for 21st century learning. In P. Resta (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2012* (pp. 2488-2494). Chesapeake, VA: AACE.
- Choi, B., Ko, M., & Baek, Y. (2012). Strategy for designing intrinsic educational games. In T. Amiel & B. Wilson (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2012* (pp. 545-554). Chesapeake, VA: AACE.
- Huang, J., Cheong, D., & Baek, Y. (2012). Exploring the Difference between Game-Based Learning Instructional Design and Traditional Instructional Design from Teachers' Perspective. In T. Amiel & B. Wilson (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2012* (pp. 2717-2728). Chesapeake, VA: AACE.
- Baek, Y. (2011). *How to design intrinsically motivating games*, keynote speech at Defence Science Research Conference & Expo, 3 - 6 August 2011, Singapore.
- Baek, Y. (2011). *Exploring Learner Variables Influencing Gaming Achievements in Game Based Learning*, a paper present at Society for Informational Technology and Teacher Education, Nashville, March 7-11, 2011.
- Baek, Y. (2011). *Designing Intrinsically Motivating Instructional Games*, a paper presented at ARVEL workshop, American Educational Research Association, New Orleans, April 10, 2011.
- Baek, Y. (2010, March 29 - April 2). A Keynote Panel Speaker at SITE 2010 --Society for Information Technology and Teacher Education 21st International Conference. San Diego.
- Moon, H. K. & Baek, Y. (2009, November 30-December 4). *Exploring variables exploring variables affecting player's intrinsic motivation in educational games*. Paper presented at the 17th International Conference on Computers in Education, HongKong.

- Gibson, D., Baek, Y., Bandersall, K., Annetta, L. & Nolte, P. (2009). Assessment of learning with games and simulations. *Proceedings of the 20th Society for Information Technology & Teacher Education International Conference*, Charleston, South Carolina, USA, 1450-1455.
- Seo, K., Sowa, P., Schmidt, C., Baek, Y., Byk, A., & Cheong, D. (2009). Talking technology across divides. *Proceedings of the 20th Society for Information Technology & Teacher Education International Conference*, Charleston, South Carolina, USA, 2347-2353.
- Park, H., Baek, Y., & Hwang, J. (2009). The effect of learners and game variables on social problem-solving in simulation game. *Proceedings of the 20th Society for Information Technology & Teacher Education International Conference*, Charleston, South Carolina, USA, 1527-1533.
- Searson, M., Gibson, D., Baek, Y., Field, W., & Yoon, K. K. (2008). Games and simulations: global perspectives. *Proceedings of the 19th Society for Information Technology & Teacher Education International Conference*, Las Vegas, USA, 1805-1807.
- Baek, Y., & Choi, S. C. (2008). Implications of educational digital game structure for use in formal education settings. *Proceedings of the 19th Society for Information Technology & Teacher Education International Conference*, Las Vegas, USA, Conference, 1613-1619.
- Cha, J., Baek, Y., & Xu, Y. (2008, November). *Exploring learners' variables affecting gaming achievement in digital game-based learning*. Paper presented at The 2nd IEEE International Conference on Digital Game and Intelligent Toy Enhanced Learning, Banff, Canada.
- Baek, Y., Kim, B., Yun, S., & Cheong, D. (2008, October). *Effects of two types of Sudoku Puzzles on Students' Logical Thinking*. Paper presented at 2nd European Conference on Games Based Learning, Barcelona, Spain.
- Baek, Y. (2008, March). Games and simulations: Global perspectives. In K. McFrrin, R. Weber, R. Carlsen & D. A. Willis (Eds.), *Proceedings of the 19th Society for Information Technology & Teacher Education International Conference*, Las Vegas, USA, 1805-1807.
- Baek, Y. (2008, March). Implications of educational digital game structure for use in formal education settings. In K. McFrrin, R. Weber, R. Carlsen & D. A. Willis (Eds.), *Proceedings of the 19th Society for Information Technology & Teacher Education International Conference*, Las Vegas, USA, 1613-1619.
- Baek, Y. (2007, October). *Principles of educational digital game structure for formal education*. Paper presented at OECD expert meeting on Videogames and Education at Santiago de Chile, Chile.
- Baek, Y., & Cheong, D. (2007, June). *Simulation for improving motivational skill*. Paper presented at National Educational Computing Conference (NECC), Atlanta, GA, USA.
- Baek, Y. (2007, June) *Simulation for improving motivational skill*. NECC 2007-National Educational Computing Conference, Atlanta, GA, USA.
- Baek, Y., et al. (2007, May) The effects of response modes in web-based language learning on recall and transfer, paper presented at CALICO 2007- Computer Assisted Language Instruction Consortium, San Marcos, TX, USA.
- Baek, Y. (2007, May). *The effects of response modes in web-based language learning on recall and transfer*. Paper presented at Computer Assisted Language Instruction Consortium (CALICO), San Marcos, TX, USA.
- Baek, Y. and Cheong, D. (2007, April). *Cognitive and conceptual assessment frameworks for simulating teaching and learning*. Paper presented at the 2007 American Educational Research Association (AERA), Chicago, IL, USA.

- Baek, Y. (2007, March). *Simulating teaching & learning*. Paper presented at SITE 2007 -Society for Information Technology & Teacher Education International Conference, in San Antonio, Texas, USA.
- Kim, B. K., Park, H. S., & Baek, Y. (2007). Metacognitive strategies for successful game-based learning, *ICoME 2007(International Conference for Media and Education (5th))*, 125-131.
- Baek, Y., & Cheong, D. (2005). Present and future prospects for mobile learning in Korea. *Proceeding of the WMTE 2005: The third IEEE international workshop on Wireless and Mobile Technologies in Education, Japan*, 216-218.
- Baek, Y. (2004, July). *The role of e-learning as a school education assistance system*. Education Technology e-Learning Seminar "School Education and e-Learning", Seoul COEX, 1-22.
- Baek, Y. (2003, November). *Expanding discussion to school sector*. Paper presented at the KSSE 50th Anniversary International Conference, The Role of Education in the 21st Century, Hoam Convention Center, Seoul National University.
- Baek, Y. (2003, January). A study on the ways to use on-line games to support communication as CLT Media. *2003 Winter Korea Game Society General Meeting and Conference*. 293-302.
- Baek, Y., Cho, H., & Kim, B. (2002, December). *Uses of Learning Objects in a Wireless Internet Based Learning System*. Paper presented at International conference on Computers in Education (ICCE2002). Auckland, NewZealand.
- Baek, Y., et al. (2001, July). *Cyber school as a supplementation system of a school*. Korean Educational Development Institute/Korea Education and Research Information Service sponsorship, Policy Forum Subject Announcement.
- Baek, Y., et al. (2000, November). *A design and implementation of teaching models in web-based teacher training*. Paper presented at ICCE/ICAI, International Conference on Computers in Education/International Conference on Computer Assisted Instruction, Taipei, Taiwan.
- Baek, Y. (1998, December). *The present situation and assignment of teacher training using a virtual education system*. Busan National University sponsorship 'Education using Multimedia and Virtual Educational System'.
- Baek, Y. (1998, August). *Teacher training via internet in Korea*. Paper presented at the University of British Columbia, Canada.
- Baek, Y. (1998). *The present situation and development direction of educational technology utilization*, Korean Society for Education Technology, Spring Conference, Seoul National University Professors' Facility.
- Baek, Y. (1997, August). *A study on cooperative learning internet (1, 2, 3)*. Paper presented at Educational Technology Seminar at Hangyang University, Seoul.
- Baek, Y. (1995, July 24-July 29). *Introduction of AI technology in CBI design: MITS*. Paper Presented at the SEAN-ROK Workshop on the Development of Educational Software, Systems Engineering Research Institute/KIST.
- Baek, Y. (1993, April). *Teaching-Learning paradigm in LAN CAI: Instructional design and using strategy, and design of CAI program for LAN*. Paper presented at the Seminar in KEDI, 13-64.
- Baek, Y. (1992, September). *The latest teaching media and their effective use in the future class in elementary schools*. Paper presented at the annual elementary education association of KSSE (The Korean Society for the Study of Education), Pusan Teacher's College.

- Baek, Y. (1992, January). *Direction and prospect of school management information*. A Paper presented at the Annual Meeting of NASEC (The National Association for the Studies of Educational Computing).
- Baek, Y. (1991, October). *A study on the expressing way of knowledge for designing Intelligent Instruction System (ITS)*. A Paper presented at the annual meeting of KSSE (The Korean Society for the Study of Education).
- Baek, et al. (1990, June). *Development, dissemination, and classroom use of educational software in Korea*. A Paper presented at the Regional Seminar on Computers in Education in Asia and the Pacific, Tokyo, Japan.
- Baek, Y., et al. (1989, December). *A study on reinforcing information education in social studies education*, A Paper presented at Conference of Information and Culture.
- Baek, Y. (1983, April). *An effect of children's self-concept and socioeconomic status on occupational development"*. Monograph Commemorative of Ph. D. Lee Chung's 60th Birthday Anniversary, Korea University Publishing Section.

GRANTS & RESEARCH PROJECTS

Computers and Technology for College and Career Readiness, PI: James Gilbert; Brett Shelton, Participated as a Co-PI. Department of Defense Education Activity (DoDEA) Grant Division I: Award, \$1,317,751. Grant ID, 781.	Oct 2017 – Apr 2022	(Funded) Department of Defense Education Activity (DoDEA)
Informal STEM Teaching and Learning Through Infusing Computational Thinking into Science Learning, PI: Dazhi Yang, Co-PIs: Youngkun Baek, Sasha Wang, Steve Swanson, Yu-hui Ching, \$1,000,000 (Boise State Univ, \$462,975).	2016-2019	(Funded) National Science Foundation
EarthQuest MSEG: Intrinsically Motivating Mobile Science Educational Game for Scientific Inquiry, \$1,174,500 (Not funded). PI: Dr. Y. Baek, Co-PI's: Dr. Dazhi Yang; Dr. Yu-Chang Hsu; Dr. Yu-hui Ching; Dr. Sam Matson.	2011.09.22	(Not Funded) Institute of Education Science (IES), U.S. Department of Education.
(Below are all funded)		
Development of Teacher Training Program for 21 st Century Learners (High School)	2009.06.12-2009.12.15	Korea Education & Research Information Services
Development of Web Contents for Decision Making about Career	2008.09.01-2008.11.28	Seoul Broad of Education
Development of Teacher Training Program for 21 st Century Learners (Middle School)	2008.09.01-2008.11.28	Korea Education & Research Information Services
Development of Web Contents for Career Education and Teaching-Learning	2007.12. -2008.03.30	Seoul Broad of Education

Mathematics (Level of 10-second) on
Vacation High School, 2007,12-
2008.3.30, Seoul Broad of Education

Analysis of Management Effect of Chungbuk Teaching & Learning Center	2006.02.22-2006.04.07	Chungbuk Education & Science Institute
The Study on Creating Korea Culture Contents and Development of Edutainment Storytelling for Edutainment Comic Series Project	2005.12.01-2006.05.31	Korea Culture & Content Agency
Basic Research of Computer Based Test for the Korean Language Capability	2005.11. -2006.04.30	Korea Institute for Curriculum and Evaluation
Development of Explanation for Assessment Item Developed in Middle School	2004.06.07- 2004.09.20	Korea Educational Research & Information Services
Study on the Construction and the Effect of PDF file for Online Self-Direction Learning	2004.03.01-2004.05.31	Korea Adobe Systems (Inc)
The Study on the Construction and Utilization of Teaching and Learning Support Center	2004.05.01-2004.08.31	Korea National University of Education
Development Teacher Training Program for ICT Integrated Instructions	2003.06.01 - 2003.09.30	Korea Education & Research Information Services
The Study on Development and Survey of Instrument for Assessing the Student ICT Skill	2003.05.01 - 2003.10.31	Korea Education & Research Information Services
Module Design of Collaborative Learning and Problem Solving Learning for Elementary School	2002.12.01-2003.08.31	Tnara Co., Ltd
The Study on Analysis and Development Strategy for Educational Game Market	2002.12.23-2003.04.30	Korea Culture & Contents Agency
Development of Media Education Text- Book for Teacher	2002.12.01-2003.11.30	National Research Foundation of Korea (Supporting to Cooperative Study of Subject Education in 2002)
Overseas educational site information offer service	2002.10.12-2002.11.30	Korea Education & Research Information Services
The Study on Design and Development of an Input Device and an Evaluation program for Excellent Professor-Education	2002.10.16-2002.11.20	Korea Institute for Curriculum and Evaluation

Data Sorting, "KICE Professor Education Development Center"		
The Study on Analysis of Type for Information Based Learning at School	2002.05.08-2002.09.07	Korea Education & Research Information Services
Development Project of Educational Multimedia Materials in 2001	2001.11.23-2002.03.31	Korea Education & Research Information Services
Study on Directions for Digital Text-Book/Reference	2001.09.01-2001.12.31	Electronic Book of Korea Consortium(EBK)
Analysis of Web Site for Curriculum on Middle School and High School	2000.02.19-2000.05.04	Korea Education & Research Information Services
Research Project of Educational Software (8 volumes)	1996.11 - 1997.12	Ministry of Education and KEDI,
Research Project of Educational Software (21 volumes)"	1995.10 - 1996.10	Ministry of Education and KEDI,
Research Project of Fractional Number Game, Heungbujon (Using Intelligent Teaching System)	1994.11 -1995.10	Seoul Metropolitan Office of Education
Research Project of Integrated Packages for Teaching/Learning (Baewoomi)	1994.01.31 - 1995.12.	Ministry of Education and KEDI,

Peer Review & Committee

Peer Referee, 2012 ~ present SITE Book Review Board

Reviewer, American Educational Research Association, Fall 2010.

Program/Review Committee, The 3rd IEEE International Conference on Digital Game and Intelligent Toy Enhanced Learning, April 12-16, 2010, Kaohsiung, Taiwan

Program committee, Society for Information Technology & Teacher Education International Conference, Charleston, SC, USA; March 2-6, 2009 ~ Present,

Program committee, International Symposium on Simulation and Serious Games (ISSSG) 2012 – 2014.

Reviewer, AERA 2009 Annual Conference papers.

Program/Review Committee, The 2nd IEEE International Conference on Digital Game and Intelligent Toy Enhanced Learning, November 17-19, 2008, Banff, Canada

Reviewer, International Journal of Gaming and Computer-Mediated Simulations,

Reviewer, Computers and Education, 2006 ~ Present

Reviewer, CyberPsychology, Behavior and Social Networking, 2006- ~ Present

Editorial Board Member, International Journal of Gaming and Computer-Mediated Simulations, 2008 ~ Present

External Doctoral Dissertation Evaluator, Multimedia University, Malaysia (Sept 2016, Dec 2016).

External Promotion Evaluator, University of Ibadan, Ibadan, Nigeria (October 2, 2012 – Dec. 2012).

External Doctoral Dissertation Evaluator, University Putra Malaysia (September 11, 2011 – September 10, 2012).

External Promotion Evaluator, University of Cincinnati (August 1, 2011 - September 22, 2011).

TECHNICAL SKILLS

Programming: Python, GameSalad, Corona SDK for Mobile devices (Corona Labs), Scratch, php

Teaching Tools: Microsoft Office Suite (Word, PowerPoint, Access, Excel, Outlook); Acrobat Reader & Designer

Learning Management Systems: Moodle, BlackBoard,

Communication Tools: Skype, Outlook, Gmail, Facebook, YouTube

Research Tools: SPSS, NVivo

Multimedia Production: Photoshop CS4, Quicktime, SnagIt, Camtasia

Web Authoring Tools: Word Press, FrontPage, Dreamweaver, WS-FTP, Linden Script Language

3D Immersive Virtual Environments: Scripting in Second Life

ACADEMIC SOCIETY JOINED

Association for Educational Communications and Technology,

Society for Information Technology and Teacher Education,

The Korean Society for the Study of Education,

Korean Association for Educational Methods (2008, President),

The Korean Society for the Study of Information Science,

The Korean Society for the Study of Cognitive Science,

The Korea Society for the Study of Educational Technology,

Korean Association for Educational Information and Media (Vice President, 2000-2004)