

JaeHwan (Jay) Byun, Ph.D.

Curriculum Vitae

08/03/2018

CONTACT INFORMATION

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Homepages [Personal Website](#) | [Google Scholar Page](#)

EDUCATION

Dec. 2012 Ph.D. Education (Curriculum and Instruction)
Specialized in Instructional Design & Technology
Department of Curriculum and Instruction,
Southern Illinois University Carbondale
Dissertation:
Effects of character voice-over on players' engagement in a digital role-playing game environment.
Chair: Dr. Christian S. Loh, Dr. Sharon Shrock
Committee: Dr. Peter Fadde, Dr. Yanyan Sheng, Dr. Linguo Bu, Dr. M. H. Clark

Feb. 2004 M.A. Educational Technology
Department of Educational Technology,
Hanyang University, Seoul, Korea
Thesis
The study of the development of an alternative Instructional Systems Design (ISD) model as a process of creating an art work

Feb. 2001 B.A. Educational Technology
Department of Educational Technology,
Hanyang University, Seoul, Korea

PROFESSIONAL APPOINTMENT

Aug. 2015 ~ Present **Assistant Professor**
Department of Curriculum and Instruction,
College of Education
Wichita State University

Aug. 2012 ~ Present **Researcher (Guest),**
Virtual Environment Laboratory (V-Lab),
Department of Curriculum and Instruction,
Southern Illinois University Carbondale

Aug. 2012 ~ Jul. 2015 **Co-Instructor**
Learning Systems Design & Technology program,
Department of Curriculum and Instruction,
Southern Illinois University Carbondale

Jan. 2014 ~ May. 2014 **Lecturer (Adjunct)**
Learning Systems Design & Technology program,
Department of Curriculum and Instruction,
Southern Illinois University Carbondale

Jan. 2011 ~ Present **Instructional Design & Technology Consultant,**
Freelance

Jan. 2011 ~ May. 2011 **Web Designer (Part-time)**
Teaching with Primary Sources program funded by Library of
Congress,
Southern Illinois University Carbondale

Jan. 2006 ~ Dec. 2010 **Graduate Assistant,**
Teacher Quality Enhancement (TQE) Project Team,
Department of Curriculum and Instruction,
Southern Illinois University Carbondale

Aug. 2006 ~ May 2008 **Research Assistant,**
Collaboratory for Interactive Learning Research (CILR),
Department of Curriculum and Instruction,
Southern Illinois University Carbondale

PUBLICATIONS

Research Papers (peer reviewed)

- Lee, S., Alagic, M., **Byun, J.**, & Liu, F. (Under Review). Preservice Elementary Teachers' Epistemological Beliefs and Views about Mathematics.
- Byun, J.**, & Joung, E. (2018). Digital game-based learning for K-12 mathematics education: A meta-analysis. *School Science and Mathematics Journal*.
- Byun, J.**, & Loh, C. S. (2015). Audial Engagement: Effects of game sound on learner engagement in digital game-based learning environments. *Computers in Human Behavior*. 46. 129-138. doi: 10.1016/j.chb.2014.12.052.

Loh, C. S., & **Byun, J.** (2009). Modding Neverwinter Nights into serious games. In D. Gibson & Y. K. Baek (Eds.), *Digital Simulations for Improving Education: Learning Through Artificial Teaching Environments* (p. 408-426). Hershey, PA: Information Science Reference.

Loh, C. S., Anantachai, A., **Byun, J.**, & Lenox, J. (2007). *Assessing what players learned in serious games: in situ data collection, information trails, and quantitative analysis*. In Q. Mehdi (Ed.), *Computer Games: AI, Animation, Mobile, Educational & Serious Games* (CGAMES 2007). Wolverhampton, UK: University of Wolverhampton.

Invited Book Chapter

Byun, J. (2015). Chapter 5. Practical and ethical issues on using social media for educational purpose. In S. Kwon, W. Eom, S. You, Y. Seo, K. Kang, S. Park, H. Shim, S. Shin, H. Kim, J. Byun, S. Kim, J. Lee, & M. Seoung, *Social Media and Education*. ISBN 978-89-994-0352-1 (Written in Korean)

Book Review

Byun, J. (2013). Book Review: Pedagogical and andragogical teaching and learning. *International Journal of Web-Based Learning and Teaching Technologies (IJWLTT)*, 8 (2). 106-108

CONFERENCE PRESENTATIONS

Byun, J. (2018, October). Relationship between Interaction and Learner Engagement in Online Learning Environments. Paper accepted at the Annual Conference of the Association for Educational Communications and Technology (AECT), Kansas City, MO.

Byun, J., Lee, K. & Bolin, B. (2018, August). *How is the factor, interaction, related to the level of learner engagement in online learning environments?* Paper presented at the Annual Summer Institute on Distance Learning and Instructional Technology (SIDLIT), Overland Park, KS.

Byun, J., Lee, K. & Bolin, B. (2018, April). *Interaction and Engagement in Online Learning Environments*. Paper presented at the Annual Conference of the Korean-American Educational Researchers Association (KAERA), New York, NY.

Byun, J., & Kang, I. (2017, November). *A Systematic Review of Research on Interaction and Learner Engagement in Online Learning*. Paper presented at the Annual Conference of the Association for Educational Communications and Technology (AECT), Jacksonville, FL.

- Byun, J.** (2017, August). *Interaction: An important strategy for learner engagement in online learning environments*. Presented at the Annual Summer Institute on Distance Learning and Instructional Technology (SIDLIT), Overland Park, KS.
- Byun, J., & Alagic, M.** (2016, August). *Per aspera ad astra: Toward Learning & Instructional Design*. Presented at the Annual Summer Institute on Distance Learning and Instructional Technology (SIDLIT), Overland Park, KS.
- Byun, J., & Joung, E.** (2015, November). *A meta-Analysis: The effects of Digital Game-Based Learning on K-12 mathematics education*. Paper presented at the Annual Conference of the Association for Educational Communications and Technology (AECT), Indianapolis, IN.
- Byun, J. & Joung, E.** (2015, October). *The issues of integrating digital games in K-12 mathematics education*. Paper presented at the Annual Convention of the School Science and Mathematics Association (SSMA), Oklahoma City, OK.
- Byun, J., Loh, C. S., & Zhou, T.** (2014, November). *Using Eye Tracking for Serious Game Analytics*. Paper presented at the Annual Conference of the Association for Educational Communications and Technology (AECT), Jacksonville, FL.
- Byun, J.** (2012, November). *Effects of game characters' voice-over on players' engagement in game-based learning environments*. Paper presented at the Annual Conference of the Association for Educational Communications and Technology (AECT), Louisville, KY.
- Byun, J.** (2009, October). *The effect of audio on learner engagement in educational digital game play*. Paper presented at the Annual Conference of the Association for Educational Communications and Technology (AECT), Louisville, KY.
- Byun, J.** (2009, October). *Aesthetic approach for instructional design: Learning from play directing*. Paper presented at the Annual Conference of the Association for Educational Communications and Technology (AECT), Louisville, KY.
- Byun, J. & Loh, C. S.** (2009). *Learning science through playing digital games*. Paper presented at the Illinois Science Teacher Association (ISTA) 2009 Annual Conference (Science in the South 2009), Carbondale, IL.
- Byun, J. & Hechenberger, D.** (2008, February) *Identifying practical approaches for utilizing arts- based teaching methods with pre-service teachers*. Paper presented at the Association of Teacher Educators (ATE) 2008 Spring Conference, New Orleans, LA.
- Byun, J. & Loh, C. S.** (2007, October) *Modding videogames for use in the classroom*. Paper presented at the Annual Conference of the Association for Educational Communications and Technology (AECT), Anaheim, CA.

- Byun, J.** & Hechenberger, D. (2007, July) *Arts-based teaching methods: Tools for pre-service teachers to engage diverse learners*. Paper presented at the Association of Teacher Educators (ATE) 2007 Summer Conference, Milwaukee, WI.
- Loh, C. S., Anantachai, A., **Byun, J.**, & Lenox, J (2007, July) *Assessing what players learned in serious games: In situ data collection, Information Trails, and quantitative analysis*. Paper Presented at the 10th International Conference on Computer Games: AI, Animation, Mobile, Educational and Serious Games (CGAMES), Louisville, KY.
- Byun, J.**, Jones, D. & Loh, C. S. (2007, March) *Modding “Neverwinter Nights” for video game-based learning in the classroom*, Paper presented at the Southern Illinois Education Alliance 2007 Conference, ‘Closing the Gap – Practical Strategies for All Educators,’ Carterville, IL.

AWARDS & HONORS

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| Dec. 2017 | University Research/Creative Projects Award (URCA), Wichita State University |
| Aug. 2017 | Online Learning Faculty Fellowship (OLFF), Wichita State University |
| Oct. 2016 | NSF/AECT Early Career Award, Funded for attending the NSF-Sponsored Early Career Symposium at the 2016, Association for Educational Communications and Technology (AECT) |
| Nov. 2007 | Finalist for the 2nd Serious Game Showcase and Challenge, Interservice/Industry Training Simulation and Education Conference (I/ITSEC), Orlando, FL. |
| Apr. 2003 | 3rd Place Winner of the Educational Media Contest, Media Festival, Korea Association of Educational Information and Broadcasting (KAEIB), Seoul, Korea |
| Aug. 2005 ~ Dec. 2010 | Graduate Assistantship (\$18,000/yr), Department of Curriculum and Instruction, Southern Illinois University Carbondale |
| Apr. 2007 | Cummings Scholarship (\$2,000), College of Education and Human Services, Southern Illinois University Carbondale |
| Mar. 2002 | Brain Korea 21 Research Scholarship (\$5,000/yr), Ministry of Education in Korea |
| Sep. 2000 | Distinguished Academic Achievement Award (\$2,000), Department of Educational Technology, Hanyang University, Seoul, Korea |

CERTIFICATE

Dec. 2017	Certificate of Completion for Quality Matters Peer Reviewer Workshop, Quality Matters
Aug. 2017	Certificate of Completion for Applying the Quality Matters (QM) Rubric Workshop, Quality Matters
Dec. 2002	Master Teacher's certificate, Intel® Teach to the Future course at Intel co. & Korea Education & Research Information Service (KERIS). Seoul, Korea
Feb. 2001	Teacher's certificate, Secondary School Teacher (Grade II) of Education, Ministry of Education & Human Resources Development, Korea

TEACHING AREA

Learning Theories
Foundations of Instructional Systems Design and Technology
Authoring Tools for Online Learning
Instructional Visual Message Design
Systems Approach to Instructional Design and Development
Task Analysis
Research Methodologies for Instructional Design and Technology
Learning Content Management System
Serious Game Design and Development

COURSES TAUGHT

Assistant Professor at Wichita State University

2018 Fall ~ Present	CI 875 Master's Thesis
2018 Fall ~ Present	CI 862 Evidence Based Inquiry: Capstone Project Proposal
2018 Fall ~ Present	CI 785 Inst. Design and Learning Management Systems (Online)
2017 Spring ~ Present	CI 758 Nature of Tech. and Educational Implications (Online)
2016 Fall ~ Present	CI 881: Instructional Theory (Online)
2015 Fall ~ Present	CI 880: Learning Theory and Curriculum Design (Online)
	CI 323: Technology Seminar in Elementary Edu. (F2F / Hybrid)

Co-Instructor at Southern Illinois University Carbondale

2013 Spring ~ Present	CI 486 A: Instructional Dev. Studio I & II – Adobe Captivate
2013 Spring ~ Present	CI 551: Assessment and Learning using Virtual Environments
2012 Fall ~ Present	CI 406: Foundations of Learning Systems Design and Technology
2014 Spring	CI 486 B: A Mobile App Development – Livecode
2012 Fall, 2013 Summer	CI 555: Task Analysis
2009 Fall	CI 486 A: Instr. Authoring Sys. - Adobe CS

Lecturer (Adjunct) at Southern Illinois University Carbondale

2014 Spring	CI 498N: Online Workshop in Educational Technology - Web Design and Visual Literacy
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Teaching Assistant at Hanyang University, Seoul, Korea

2003 Fall	New Generation of Instructional Design Theory and Practice
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Student Teacher (K-12) at Hanyang Technical High School, Seoul, Korea

2001 Spring	Ethics
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Drill Instructor at Recruit Training Camp of Republic of Korea Army

Jan. 1997 ~ Mar. 1999	Korean Army Initial Entry Training
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RESEARCH PROJECTS

Jan. 2018 ~ Present	Organizational Citizenship Behavior in Higher Education
Dec. 2017 ~ Present	Pedagogical Content Knowledge and Content Knowledge on Volume
Dec. 2016 ~ Present	Online students' class attitude
Jan. 2016 ~ Present	Engagement through interactions in Online Learning Environment
Nov. 2017 ~ Aug. 2018	Preservice Teachers' Epistemological Beliefs and View on Mathematics
Nov. 2014 ~ Aug. 2016	Effects of Game-Based Learning in k-12 Mathematics Education
Aug. 2013 ~ Dec. 2016	Eye-tracking and Serious Game Analytics
Dec. 2012 ~ Dec. 2014	Decision Making Style and Learner Behavior/Performance in Virtual Learning Environments
Jan. 2008 ~ May 2008	Information Trail as Game Assessments

Jun. 2007 ~ Dec. 2007	Game-Based Learning Environment for Teaching Geology: Labyrinth Saving Adryanee: Serious game for mid-high school students health education
Jan. 2007 ~ May 2007	Arecibo Valley: Serious game for teaching mid-high school students Chemistry
Aug. 2006 ~ Dec. 2006	Building Instructional Design & Technology Resources Database
Mar. 2003 ~ Dec. 2003	Investigating Trends of e-Learning in Korea
Mar. 2002 ~ Dec. 2002	Customizing Intel® Teach to the Future Program for Teachers in Korea

INSTRUCTIONAL DESIGN & DEVELOPMENT PROJECTS

Hybrid Course

Aug. 2015 ~ Dec. 2015	Technology Seminar in Elementary Education
Jan. 2012 ~ May 2012	Early Childhood Professional Development: To Be a Child Advocate

Online Course

Aug. 2016 ~ Dec. 2016	Instructional Theory
Aug. 2015 ~ Dec. 2015	Learning Theories and Curriculum Design
Oct. 2012 ~ Jan. 2013	Web Design & Visual Literacy
Jan. 2011 ~ May 2011	The 2C2S principles for good web design The ABC of bass fishing
Apr. 2001 ~ Aug. 2001	What matters most? - Effective time management skills
Dec. 2000 ~ Mar. 2001	The ethical principle for personnel of 'Lotte Group'
Aug. 2000 ~ Nov. 2000	New learning strategies in Digital Ages

Workshop

Jan. 2008 ~ May 2008	Working like a professional – SIUC Student Workers Workshop
Aug. 2007 ~ Dec. 2007	Effective MS-Powerpoint presentation material design for graduate students

Curriculum

Sep. 2001 ~ Feb. 2002	The Korea Pharmaceutical Manufacturers Association (KPMA) certification program for pharmaceutical sales person
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CONSULTING PROJECTS

Instructional Design & Technology Consultant

Jan. 2015 ~ Jan. 2015	Development of communication strategies to improve D2L learner's engagement level
Dec. 2013 ~ Jan. 2014	Revision/Development of chapter quiz items in an educational psychology textbook, titled "Psychology Applied to Teaching" (2014) written by Jack Snowman & Rick McCown
Aug. 2013 ~ Sep. 2013	Evaluation for a financial education video tutorial titled "About Managing Your Money"
Jan. 2013 ~ May. 2013	Development of teaching strategies for a course, "Administration of Childhood & Family Programs"
Aug. 2012 ~ Dec. 2012	Consulting on the strategies for running a hybrid course more effectively with D2L System

SERVICES

Aug. 2017 ~ Present	Reviewer, Educational Technology Research and Development Reviewer, School Science and Mathematics Journal State Advisor, Kansas Technology Student Association
Aug. 2016 ~ Present	Reviewer, Computers and Education, an international journal published by Elsevier Reviewer, Computers in Human Behavior, an international journal published by Elsevier Member of steering committee for 2017 Annual Conference of Summer Institute of Distance Learning and Instructional Design (SIDLIT)
Aug. 2016 ~ Aug. 2017	Member of Learning Management System Review Committee of Wichita State University
Aug. 2015 ~ Present	Member of Technology Committee of College of Education at Wichita State University Member of Master of Education in Learning and Instructional Design program committee, Dept. of Curriculum and Instruction at Wichita State University

- Nov. 2014 ~ Aug. 2015 Member of Minority in Computing (MIC) Research Group, School of Information Systems and Applied Technologies (ISAT), College of Applied Sciences and Arts (CASA), SIUC
- Sep. 2014 ~ Aug. 2015 Co-Founder, 12-Week Research Paper Writing Group: Academic writing group for Korean Students and Faculty members in Dept. of Curriculum and Instruction at SIUC
- Oct. 2014 ~ Nov. 2014 Ad hoc Reviewer, Loh, C. S., Sheng, Y., & Ifenthaler, D. (2016). (Eds.) *Serious Games Analytics: Methodologies for performance measurement, assessment, and improvement with Serious Games*. New York, NY: Springer.
- Nov. 2012 Volunteer Supervisor, Association for Educational Communications and Technology (AECT), Louisville, KY.
- Nov. 2008 Technical Support Team Volunteer, Association for Educational Communications and Technology (AECT), Orlando, FL.

MEDIA COVERAGE

- Virtual environment: Lead to real learning. (2014, May 14). *Journeys: A magazine of the SIU College of Education and Human Services*, p. 10-11. Retrieved from http://ehs.siu.edu/_common/documents/journeys-May14.pdf
- Wilhle, A. (2007, July 16). Teachers create video games for classroom use, *The Southern Illinoisian*. Retrieved from www.theshouthern.com
- Jaehnig, K. C. (2007, February 21). Project explores what and how players learn - Computer games may help with class work. *Saluki Times*. Retrieved from www.news.siu.edu

PROFESSIONAL AFFILIATIONS

- Summer Institute of Distance Learning and Instructional Technology (SIDLIT), since 2016
- Association for Educational Communications and Technology (AECT), since 2007
- School Science and Mathematics Association (SSMA), since 2015
- Association of Teacher Educators (ATE), since 2007
- Korean Society for Educational Technology (KSET), since 2007

TECHNICAL SKILLS

e-Learning authoring software: Dreamweaver CC/CS6, Captivate, Camtasia

Graphic design application: Fireworks, Photoshop, GIMP

Mobile app development program: Livecode

Learning Content Management System: Desire 2 Learn, Blackboard, Moodle, Charmilo

Game authoring toolkits: Neverwinter Nights v. 1 & 2

Web-forum application: phpBB

Database development/maintenance: Apache, PHP, MySQL

Digital video editing software: iMovie, Windows Movie Maker

Digital audio editing software: Audacity

Office applications: MS-Office, iWork

Statistical package: IBM SPSS, R