BORAM LEE

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AREAS OF INTEREST

Elementary math education, designing and developing game-based virtual environments for math learning

Academic background

University of Texas at Austin, Texas, US **08/2019-Present**
STEM Education program in the College of Education

SEOUL NATIONAL UNIVERSITY OF EDUCATION, Seoul, Korea **03/2016-08/2018**
Master of Elementary Mathematics Education (Concentration: Collaborative Utterances in Problem-Solving; Cumulative GPA: 4.4/4.5)
Department of Elementary Mathematics Education

Master's Thesis Title: "Analysis of Collaborative Utterances among Elementary Students in the Problem-Solving Process" (*Best Dissertation Award* on August 2018)

- Studied collaborative utterances that accelerate group collaboration and the problem-solving process

Relevant Courses: Fundamentals for Elementary School Mathematics I, Psychology of Learning in Elementary School Mathematics, Mathematics Teaching and Learning in the Elementary School, Research Methods in Mathematics Education I, Curriculum and Evaluation for Elementary School Mathematics I

SEOUL NATIONAL UNIVERSITY OF EDUCATION, Seoul, Korea **03/2011-02/2016**
Bachelor of Education in Elementary Education (Concentration: Social Studies Education*;* Cumulative GPA: 4.15/4.5)
Summa Cum Laude

Relevant Courses: Methodology in Social Science, Education and Society, History Education, Law in Democratic Citizenship Education, Methodology in Social Studies, Study on Elementary School Social Studies Instruction Materials, Assessment & Designment of Social Studies Instruction, Social Service Activities, Methods of Evaluation in Social Studies, Teaching of Social Studies Instruction

RESEARCH EXPERIENCE

UNIVERSITY OF TEXAS AT AUSTIN, Texas, US **09/2019-Present**
Graduate Research Assistant, STEM Department (Advisor : Professor Eric Knuth)

Title of the project: Learning through an Early Algebra Progression (LEAP Project)

- 'Identifying Effective Instructional Practices that Foster the Development of Algebraic Thinking in Elementary School' funded by National Science Foundation (2017-2021)
- Served as a graduate research assistant; coding teachers' instructional practices to extract essential ones, which are mainly effective to foster students' early algebraic thinking, and analyzing coding results

SEOUL NATIONAL UNIVERSITY OF EDUCATION, Seoul, Korea **03/2016-02/2018**
Assistant Researcher, Department of Elementary Mathematics Education (Advisor: Professor Mangoo Park)

Title of the learning materials project: "Analysis of the Effects of Elementary Tangible Coding Program"

- Supported by the Seoul National University of Education Industry-Academy Cooperation Foundation ($66,000)
- Served as a research assistant; wrote the workbooks of the tangible materials (Moblo) and applied the materials to evaluate the class
- Analyzed the collaborative aspects of tangible coding materials

TEACHING EXPERIENCE

UNIVERSITY OF TEXAS AT AUSTIN, Texas, US **09/2019-Present**
Teaching Assistant, UTeach Program, College of Natural Sciences

- Assisted Dr. Eusebi with teaching Step 1 course
- Presented about elementary students' learning features to plan inquiry-based lessons
- Observed students' teaching in elementary schools within Austin Independent School District (AISD) and provided feedback to each team

GANGSOL ELEMENTARY SCHOOL, Seoul, Korea **03/2017-08/2019**
Fifth grade teacher

- Focus math class on enhancing students' collaborative problem-solving competency
- Carry out research on activities to improve students' collaborative skills for meaningful mathematics collaborative learning and verify the efficacy of those activities
- Conduct the "Sharing Math" project, which was proposed by the Seoul Metropolitan Office of Education for the purpose of strengthening students' affective domain in mathematics learning
- Lead a Math Mentor after-school class every Wednesday as a part of the "Sharing Math" project to deepen fifth grade students' math understanding by mentoring low-performing students
- Conduct research on various mathematics learning/teaching materials including development of collaborative math board games

GANGIL ELEMENTARY SCHOOL, Seoul, Korea **03/2016-02/2017**
Third grade teacher

- Developed math class that included game factors and collaborative group activities
- Led additional after-school math class so as to improve students' mathematics competence

PAPER

Journal Paper (Domestic)

Lee, B., & Park, M**.** (2018). Analysis of Collaborative Utterance among Elementary Students in the Problem-Solving Process. *The Korean Society of Mathematical Education.57(3)*, 271-287.
(https://www.kci.go.kr/kciportal/ci/sereArticleSearch/ciSereArtiView.kci?sereArticleSearchBean.insiId=INS000000979&sereArticleSearchBean.sereId=000232&sereArticleSearchBean.artiId=ART002382459)

Park, M., Kim, D., Kim, J., Kim, H., **Lee, B.**, Jo. Y., & Hong, J. (2018). An Analysis on the Effects of a Tangible Coding Education Program. *Korean Journal of Elementary Education, 29*(4), 23-49. https://doi.org/10.20972/kjee.29.4.201812.23

PRESENTATION

Domestic Conference (Poster)

Lee, B., & Park, M**.** (2018). Collaborative Utterances in Group Problem-Solving. *The Korean Society of Elementary Mathematics Education.* Gongju National University of Education. Gongju, Korea

Park, M., Kim, D., Kim, J., Kim, H., **Lee, B.**, Jo. Y., & Hong, J. (2018). Analysis of the Effects of Elementary Tangible Coding Program. *The Korean Society of Mathematical Education.* Korea National University of Education, Cheongju, Korea.

Park, M., Kim, D., Kim, J., Kim, H., **Lee, B.**, & Jo. Y. (2017). Coding Education with Smart Blocks. *The Korean Society of Mathematical Education.* Korea National University of Education, Cheongju, Korea.

HONORS & AWARDS

Tuition Reduction Scholarship, Seoul National University of Education	03/2018-06/2018
Scholarship for Academic Excellence, Seoul National University of Education	09/2017-12/2017
Tuition Reduction Scholarship, Seoul National University of Education	03/2017-06/2017
Leadership Development Scholarship, Seoul National University of Education	09/2016-12/2016
Scholarship for Academic Excellence, Seoul National University of Education	09/2014-12/2014
Scholarship for Academic Excellence, Seoul National University of Education	03/2011-12/2012
Scholarship for Service, Seoul National University of Education	09/2011-12/2011

ACTIVITIES

Member, Seoul Elementary Mathematics Education Research Group	06/2017-08/2019
Member, Intramural Mathematics Study Group for Teachers, Gangsol Elementary School	03/2017-08/2019

PROFESSIONAL MEMBERSHIP

Member, Korean Society of Elementary Mathematics Education
Member, Korean Society of Mathematics Education

SKILLS

LANGUAGE: Korean (native), Japanese (speak and write fluently)