Young Rae Kim

I. PERSONAL INFORMATION

Name: Young Rae Kim
Rank: Professor
Department: Curriculum & Instruction
College of Education & Human Development
Texas A&M University-San Antonio
Specialization: Mathematics Education/Statistics Education/STEM Education

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Department of Curriculum & Instruction
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II. EDUCATIONAL HISTORY

Degree	Year	Institution
Ph.D.	2013	University of Minnesota, Twin Cities Major: Education, Curriculum and Instruction Track: Mathematics Education Minor: Educational Psychology Track: Statistics Education Dissertation: Building a Theoretical Model of Metacognitive Processes in Complex Modeling Activities: A Window into the Development of Students' Metacognitive Abilities
M.S.	1999	Yonsei University, South Korea Major: Mathematics Specialization: Differential Geometry
B.S.	1997	Soonchunhyang University, South Korea Major: Mathematics Minor: Mathematics Education

III. CERTIFICATION

Quality Matters Teaching Online Certificate

Teacher's Certificate for Secondary School in Mathematics in Korea

IV. PROFESSIONAL EXPERIENCE

Position and Dates	Location and Description
Professor (August 2025 ~ Present)	Department of Curriculum and Instruction College of Education & Human Development Texas A&M University-San Antonio
Associate Professor (August 2020 ~ July 2025)	Department of Curriculum and Instruction College of Education & Human Development Texas A&M University-San Antonio
Assistant Professor (August 2014 ~ July 2020)	Department of Curriculum and Instruction College of Education & Human Development Texas A&M University-San Antonio
Post-doctoral Research Associate (Aug 2013 ~ July 2014)	STEM Education Center Department of Curriculum and Instruction, University of Minnesota *Evaluating Engineering Learning: A Comparison of Project-Based-Learning to Traditional Engineering Education*. Funded by the National Science Foundation (NSF) Transforming Undergraduate Education in Science, Technology, Engineering, and Mathematics (TUES) Program – Leading the research project evaluating the effects of project-based-learning (pbl) in engineering education with four different perspectives: the cognitive development of the student, the technical competency of the student, the professional competency of the student, and the motivation of students to learn
Research Assistant (Aug 2009 ~ Aug 2012)	STEM Education Center Department of Curriculum and Instruction, University of Minnesota *3M STEM Education Fellowship Program*. Funded by the 3M Foundation – Supporting STEM Integration in K-12 Classrooms Through: 1) Professional Development and 2) Curriculum Development, Implementation, and Assessment, in particular Using Model-Eliciting Activities (MEAs)
Research Assistant	STEM Education Center

(Aug 2008 ~ Aug 2012)	Department of Curriculum and Instruction, University of Minnesota
	Modeling: Elicitation, Development, Integration, and Assessment (MEDIA) Project. Funded by the National Science Foundation (NSF) – Improving Engineering Students' Learning Strategies Through Models and Modeling
Research Assistant (Jan 2009 ~ Aug 2009)	Department of Curriculum and Instruction, University of Minnesota
	Building on Success: A Proposal to Become the World's Greatest 2-Year Engineering Program. Funded by the Blandin Foundation – Providing Formative and Summative Evaluation
Education Consultant (Jun 2008 ~ Aug 2008)	Seward, Inc., Minneapolis, MN
	Building Model Eliciting Activities (MEAs) in the Middle Grades: Supporting Teachers and Enhancing Student Learning Through Technology. Funded by the National Science Foundation Small Business Innovation Research (SBIR) program – Supporting the Development of Computer Simulations for MEAs
Graduate Teaching Assistant (Feb 2008 ~ May 2008)	Department of Postsecondary Teaching and Learning, University of Minnesota
	Providing tutoring to undergraduate students for intermediate algebra up to pre-calculus and statistics classes
Mathematics teacher (Oct 2000 ~ Feb 2005)	Daeyon Academy, South Korea
	Teaching secondary mathematics
Graduate Teaching Assistant (Mar 1999 ~ June 1999)	Department of Mathematics, Yonsei University, South Korea
	Teaching Differential Geometry for 1999 spring semester
Graduate Teaching Assistant (Sep 1998 ~ Dec 1998)	Department of Mathematics, Yonsei University, South Korea
	Teaching Differential Equations for 1998 fall semester
Graduate Teaching Assistant (Mar 1998 ~ June 1998)	Department of Mathematics, Yonsei University, South Korea
	Teaching Engineering Mathematics (Calculus II) for 1998 spring semester

V. TEACHING

	Title	Institution
1301	Introduction to Teaching	Texas A&M University-San Antonio
4347	Math Methods for EC & Elementary Teachers	Texas A&M University-San Antonio
4357	Math Methods in Middle and Secondary Levels	Texas A&M University-San Antonio
5134	General Research Methods II	Texas A&M University-San Antonio
5352	Math Methods in Middle and Secondary Levels	Texas A&M University-San Antonio
	TExES Review Sessions EC-6 Generalist (Math) 4-8 Math	Texas A&M University-San Antonio
3102	Mathematics and Pedagogy for Elementary Teachers II	University of Minnesota, Twin Cities
3103	Introduction to Differential Geometry	Yonsei University, South Korea
2012	Differential Equations	Yonsei University, South Korea
1011	Engineering Mathematics	Yonsei University, South Korea

VI. JOURNAL ARTICLES

(*REFEREED, [U]UNDERGRADUATE STUDENT)

*__Kim, Y. R.__, Park, M. S., & Joung, E. (2025). Exploring the integration of artificial intelligence in math education: Preservice teachers' experiences and reflections on problem-posing activities with ChatGPT. *School Science and Mathematics.*

* Joung, E., __Kim, Y. R.__ (2025). Exploring the impact of discussion responses generated from ChatGPT on student performance and experiences. *School Science and Mathematics.*

*__Kim, Y. R.__, & Park, M. S. (2024). Preservice elementary teachers' reflections on mathematical modeling and connections to the state standards for mathematics. *Journal of Mathematics Teacher Education in Texas, 13*(3), 7-10.

*__Kim, Y. R.__, Yang, J., Lee, Y., & Earwood, B. (2024). Assessing cybersecurity problem-solving skills and creativity of engineering students through model-eliciting activities using an analytic rubric. *IEEE Access, 12,* 5743-5759.

*__Kim, Y. R.__, Kwon, E. H., & Park, M. S. (2023). Effects of a math-integrated afterschool physical activity program: A case study. *International Journal of Arts, Humanities & Social Science (IJAHSS), 4*(12), 23-31.

*Joung, E., & **Kim, Y. R.** (2022). Identifying preservice teachers' concept-based and procedure-based error patterns in multiplying and dividing decimals. *International Journal of Education in Mathematics, Science, and Technology (IJEMST), 10*(3), 549-567.

*__Kim, Y. R.,__ Park, M. S., & Tjoe, H. (2021). Discovering concepts of geometry through robotics coding activities. *International Journal of Education in Mathematics, Science, and Technology (IJEMST), 9*(3), 406-425.

*Joung, E., Lin, C., & **Kim, Y. R.** (2021). Preservice teachers' understanding of decimals using standard algorithm and alternative strategies. *International Journal for Mathematics Teaching and Learning*, *22*(1), 66-85.

*Stohlmann, M., & **Kim, Y. R.** (2020). Game-based learning: Robotics and escape rooms. *The Australian Mathematics Education Journal*, *2*(4), 20-24.

*__Kim, Y. R.__, & Park, M. S. (2020). Mathematical modeling in teacher education: A case study of preservice teachers' experiences. *Journal of Mathematics Teacher Education in Texas*, *10*(2), 8-10.

*Park, M. S., **Kim, Y. R.**, Kwon, E. H. (2019). Geo-Baloo: Teaching geometry through physical activities. *Early Years*, *40*(3), 28-30.

*__Kim, Y. R.__, & Moore, T. J. (2019). Multiple levels of metacognition: Circumstances interfering with students' spontaneous metacognitive activities. *Journal of Educational Research and Practice*, *9*(1), 158-178.

*__Kim, Y. R.__, & Park, M. S. (2018). Creating a virtual world for mathematics. *Journal of Education and Training Studies*, *6*(12), 172-183.

*Park, M. S., **Kim, Y. R.**, Moore, T. J., & Wyberg, T. (2018). Professional development framework for secondary mathematics teachers. *International Journal of Learning, Teaching and Educational Research*, *17*(10), 127-151.

*__Kim, Y. R.__, & Park, M. S. (2018). Effective teaching for place value understanding: A case study of a literacy-integrated math curriculum module. *Early Years*, *39*(1), 19-23.

*__Kim, Y. R.__, & Park, M. S. (2018). The persistent difficulty of early fraction ideas in early secondary school mathematics. *Journal of Education and Practice*, *9*(29), 32-42.

*__Kim, Y. R.__, & Nam, Y. (2017). Exploring American Indian students' problem-solving propensity in the context of culturally relevant STEM topics. *Journal of the Korean Society of Earth Science Education*, *10*(1), 1-16.

*Moore, T. J., Guzey, S. S., Roehrig, G. H., Stohlmann, M., Park, M. S., **Kim, Y. R.**, Callender, H. L., & Teo, H. J. (2015). Changes in faculty members' instructional beliefs while implementing model-eliciting activities. *Journal of Engineering Education*, *104*(3), 279-302.

*__Kim, Y. R.__, Park, M. S., Moore, T. J., & Varma, S. (2013). Multiple levels of metacognition and their elicitation through complex problem-solving tasks. *Journal of Mathematical Behavior*, *32*(3), 377-396.

*Moore, T. J., Miller, R. L., Lesh, R. A., Stohlmann, M. S., & **Kim, Y. R.** (2013). Modeling in engineering: The role of representational fluency in students' conceptual understanding. *Journal of Engineering Education*, *102*(1), 141-178.

SUBMITTED FOR PUBLICATION (UNDER REVIEW)

IN PROGRESS TOWARD PUBLICATION

Stohlmann, M., **Kim, Y. R.**, & Park, M. S. (in revision). Focusing on the M in STEM.

Kim, Y. R., & Park, M. S. (in revision). Developing algebraic reasoning with Sphero robots.

Kim, Y. R. (in preparation). What statisticians do: A cognitive apprenticeship method for statistics education.

Kim, Y. R., & Park, M. S. (in preparation). Creating your own mathematics storybook: Integrating literature and multiple representations.

Kim, Y. R., & Park, M. S. (in preparation). Teaching and learning mathematics through modeling activities.

Kim, Y. R., Joung, E., & Park, M. S. (in preparation). An intervention study on preservice teachers' preparedness to use multiple representations in teaching mathematics.

Kim, Y. R., & Park, M. S. (in preparation). Preservice teachers' task design with ChatGPT: A case study on teaching mathematics through multiple representations.

VII. BOOKS (MATH STORY BOOKS)

Park, M. S., & **Kim, Y. R.** (2014). *How Many Invitations Do I Need?* Charleston, SC: CreateSpace. ISBN: 9781497322820.

Park, M. S., & **Kim, Y. R.** (2014). *Who Lost a Necklace?* Charleston, SC: CreateSpace. ISBN: 9781494883874.

Kim, Y. R., & Park, M. S. (2013). *Ten Jellies in a Long Box and One Hundred Jellies in a Flat Box*. Charleston, SC: CreateSpace. ISBN: 9781494251055.

Park, M. S., & **Kim, Y. R.** (2013). *Who am I? Half of Someone or Myself?* Charleston, SC: CreateSpace. ISBN: 9781492972464.

VIII. SCIENTIFIC PAPERS PUBLISHED IN CONFERENCE PROCEEDINGS

(*REFEREED, [U]UNDERGRADUATE STUDENT)

Lee, Y., Yang, J., & **Kim, Y. R.** (2023, October). *Adopting model eliciting activities in an undergraduate software engineering course through real-world projects.* Proceedings of the 2023 IEEE Frontiers in Education Conference (FIE), College Station, Texas, USA, October 8-11, 2023.

Yang, J., **Kim, Y. R.**, & Earwood, B. (2022, October). *A study of effectiveness and problem solving on security concepts with model-eliciting activities.* Proceedings of the 2022 IEEE Frontiers in Education Conference (FIE), Uppsala, Sweden, October 8-11, 2022.

Earwood, B., Yang, J., & **Kim, Y. R.** (2021). *Effective learning of cybersecurity concepts with model-eliciting activities*. Proceedings of the 2021 IEEE International (Virtual) Conference on Engineering, Technology & Education (TALE), Wuhan, China, December 5-8, 2021.

Yang, J., Earwood, B., **Kim, Y. R.**, & Lodgher, A. (2020, June). *Implementation of security modules with model-eliciting activities in computer science courses*. Proceedings of the 2020 American Society for Engineering Education (ASEE) Virtual Annual Conference, Content Access, Virtual Online. https://peer.asee.org/34776.

Yang, J., [U]Barrientes, C., [U]Sanchez, J., & **Kim, Y. R.** (2018, December). *Source code analysis for secure programming practices*. Proceedings of the International Conference on Computational Science and Computational Intelligence (CSCI), Las Vegas, Nevada, USA, December 13, 2018.

*__Kim, Y. R.__, Park, M. S., [U]Fields, A., & [U]Gonzalez, A. (2018, November). *Developing proportional reasoning through coding and robotics*. Proceedings of the 11th annual International Conference of Education, Research and Innovation (ICERI) Conference, Seville, Spain, November 12-14, 2018.

*__Kim, Y. R.__, & Park, M. S. (2018, March). *Preservice teachers' experiences of group work*. Proceedings of the 12th annual International Technology, Education and Development (INTED) Conference, Valencia, Spain, March 5-7, 2018.

*__Kim, Y. R.__, & Park, M. S. (2017, July). *Preservice teachers' perspectives on modeling activities*. Proceedings of the 9th annual International Conference on Education and New Learning Technologies (EDULEARN), Barcelona, Spain, July 3-5, 2017.

*__Kim, Y. R.__, & Park, M. S. (2017, July). *Using manipulatives to teach middle grades math*. Proceedings of the 9th annual International Conference on Education and New Learning Technologies (EDULEARN), Barcelona, Spain, July 3-5, 2017.

*Nam, Y., Park, M. S., **Kim, Y. R.**, Roehrig, G. H., & Moore, T. J. (2012, October). *A problem-based culturally relevant STEM curriculum*. Asia Regional Conference of International History, Philosophy, and Science Teaching Group, Seoul, South Korea.

*__Kim, Y. R.__, Breit-Goodwin, M., Park, M. S., Moore, T. J., & Roehrig, G. H. (2012, July). *A continuing challenge: Developing initial fraction ideas*. Proceedings of the 12th International Congress on Mathematical Education (ICME-12), Seoul, Korea, July 8–15, 2012.

*Park, M. S., **Kim, Y. R.**, Moore, T. J., & Roehrig, G. H. (2012, July). *Teachers' knowledge and math teaching in a reform curriculum*. Proceedings of the 12th International Congress on Mathematical Education (ICME-12), Seoul, Korea, July 8–15, 2012.

*Stohlmann, M. S., Moore, T. J., **Kim, Y. R.**, Park, M. S., & Roehrig, G. H. (2011). *The development of an instructional and assessment tool from student work on a Model-Eliciting Activity*. Proceedings of the 2011 American Society for Engineering Education (ASEE) National Conference, Vancouver, BC, 13 pages.

IX. REFEREED PRESENTATIONS IN CONFERENCE

([U]UNDERGRADUATE STUDENT)

Kim, Y. R., Park, M. S., & Joung, E. (2025, November). *Exploring the integration of artificial intelligence in math education: Preservice teachers' experiences and reflections on problem-posing activities with ChatGPT*. Invited as a panelist at the 124th Annual Convention of the School Science and Mathematics Association (SSMA), Fort Worth, Texas, November 13-15, 2025.

Kim, Y. R., Park, M. S., & Joung, E. (2025, February). *Preservice teachers' experiences with AI-integrated mathematical problem-posing activities* . The 29th Annual Conference of the Association of Mathematics Teacher Educators (AMTE), Reno, NV, February 6-8, 2025.

Joung, E., & **Kim, Y. R.** (2024, November). *Exploring the impact of incorporating AI into mathematics classroom*. The 123rd Annual Convention of the School Science and Mathematics Association (SSMA), Knoxville, TN, November 7-9, 2024.

Joung, E., & **Kim, Y. R.** (2024, August). *The impact of integration of AI in mathematics discussions*. The MAA MathFest 2024 in Indianapolis, IN, August 7-10, 2024.

Kim, Y. R., Park, M. S., & Joung, E. (2024, February). *An intervention study on preservice teachers' preparedness to use multiple representations in teaching mathematics*. The 28th Annual Conference of the Association of Mathematics Teacher Educators (AMTE), Orlando, FL, February 8-10, 2024.

Kim, Y. R., Park, M. S., & Joung, E. (2023, October). *Preservice teachers' perceptions of their readiness to teach math using multiple representations*. The Annual Convention of the School Science and Mathematics Association (SSMA), Colorado Springs, CO, October 18-21, 2023.

Joung, E., & **Kim, Y. R.** (2022, April). *Preservice teachers' error patterns in multiplying and dividing decimals*. The 2022 American Educational Research Association (AERA), Virtual Platform, April 21-26, 2022.

Joung, E., Lin, C., & **Kim, Y. R.** (2021, April). *Preservice teachers' connection between procedural knowledge and conceptual understanding of decimal operations using multiple strategies*. The 2021 American Educational Research Association (AERA) Virtual Annual Conference, April 8-12, 2021.

Kim, Y. R., & Park, M. S. (2021, April). *Mathematical modeling activities: Using student thinking as a base for instruction*. The 5th Coastal Bend Mathematics and Statistics Virtual Conference, April 10, 2021.

Joung, E., Lin, C., & **Kim, Y. R.** (2020, November). *Understanding of decimals: The connection between standard algorithms and alternative strategies*. The 119th Annual Convention of the School Science and Mathematics Association (SSMA), Minneapolis, MN, November 5-7, 2020.

Kim, Y. R., Park, M. S., & Tjoe, H. (2020, February). *Preservice teachers' experiences with mathematical modeling activities*. The 24th Annual Conference of the Association of Mathematics Teacher Educators (AMTE), Phoenix, AZ, February 6-8, 2020.

Kim, Y. R., Park, M. S., & Tjoe, H. (2019, November). *Mathematical modeling and multiple solution strategies: The case of Sphero SPRK+*. The 118th Annual Convention of the School

Science and Mathematics Association (SSMA), Salt Lake City, UT, November 7-9, 2019.

Kim, Y. R., & Park, M. S. (2019, February). *Preservice teachers' experiences with math activities using coding and robotics*. The 23rd Annual Conference of the Association of Mathematics Teacher Educators (AMTE), Orlando, FL, February 7-9, 2019.

Kim, Y. R., & Park, M. S. (2017, April). *Teaching and learning mathematics through modeling activities*. International Conference on Education and Social Development (ICESD), Houston, TX, April 7-8, 2017.

Kim, Y. R., Park, M. S., & Moore, T. J. (2013, April). *Mathematical reasoning and proof: Letting students write their own story*. NCTM Annual Meeting & Exposition, Denver, CO, April 17-20, 2013.

Glancy, A., **Kim, Y. R.**, & Moore, T. J. (2013, April). *Do operations with integers sink your students' boat?* NCTM Annual Meeting & Exposition, Denver, CO, April 17-20, 2013.

Stohlmann, M., **Kim, Y. R.**, & Park, M. S. (2012, May*). YouTube and math: Hey, it worked for Justin Bieber*. Minnesota Council of Teachers of Mathematics Spring Conference, Duluth, MN, May 4-5, 2012.

Stohlmann, M., Guzey, S., **Kim, Y. R.**, Park, M. S., Moore, T. J. (2011, August). *Implementing STEM integration through model-eliciting activities*. Colloquium on P-12 STEM Education Research, A forum for professionals researching & teaching P-12 STEM Education, St. Paul, MN, August 15–16, 2011.

Kim, Y. R., Breit-Goodwin, M., & Moore, T. J. (2011, April). *Developing initial fraction ideas with middle school students.* Minnesota Council of Teachers of Mathematics Spring Conference, Duluth, MN, April 29–30, 2011.

Breit-Goodwin, M., **Kim, Y. R.**, & Moore, T. J. (2011, April). *Student experiences with computer-assisted instructional (CAI) tutorials*. Minnesota Council of Teachers of Mathematics Spring Conference, Duluth, MN, April 29–30, 2011.

Nam, Y., Park, M. S., **Kim, Y. R.**, Roehrig, G. H., & Moore, T. J. (2011, March). *Shelter design: Problem solving lesson using a culturally relevant STEM topic*. National Association for Research in Science Teaching (NARST) Annual International Conference, Orlando, FL.

Stohlmann, M., & **Kim, Y. R.** (2010). *Powerful paper airplane problem: A model-eliciting activity for STEM integration*. TIES Technology Integration Seminar: Bringing STEM Alive!, St. Paul, MN.

Moore, T. J., Park, M. S., & **Kim, Y. R.** (2010, May). *Blur the lines: STEM contexts for meaningful mathemtics*. Minnesota Council of Teachers of Mathematics Spring Conference, Duluth, MN, April 30 – May 1, 2010.

X. NON-REFEREED PRESENTATIONS

Kim, Y. R., Phillip, M., & Jurica, T. (2015, September). sTeA&M-SA*: Ambitious goal–A trademark of* A&M-SA. The 6th Texas A&M University Chancellor's Summit, San Antonio, TX, September 28–29, 2015.

XI. GRANTS

Yang, J (PI), **Kim, Y. R. (Co-PI)**, Teufel, A. (Co-PI), and Cao Z. (Co-PI), Co-Is: Hossain, M. T., Lee, Y., Han, Q., Gou, K., Garfield, T., Smyth, D., Liu, C., Lee, B., and Kohler, K., Evaluator: Thiry, H. (2025). AI for All JAGUARS: Building an AI Education Ecosystem and Infusing Critical AI Thinking to the AI-Driven Future (Jag-AI). *U.S. Department of Education FIPSE-SP.* (Funding requested: $2,996,906). 3/1/2026-2/28/2030. Submitted, Under Review.

Kim, Y. R., Joung, E., & Lin, C. (2024). AI-Integrated Mathematical Problem Posing (AIM) to enhance undergraduate students' procedural and conceptual knowledge. *National Science Foundation*. (Funding requested: $492,625). Not Funded.

Joung, E., Lin, C., & **Kim, Y. R.** (2023). Animation Use in Tutoring Online for Math (AUTO Math). *National Science Foundation*. (Funding requested: $694,905). Not Funded.

Leyva, E., McCarron, C., **Kim, Y. R.**, Kearney, W. S., & Han, Q. (2023). Robert Noyce Capacity building project: Development aNd Advancement (DNA) of STEM leadership. *National Science Foundation*. (Funding requested: $99,983). Not Funded.

Yang, J., **Kim, Y. R.**, & Lodgher, A. (2018-2023). New to NSF: Recruiting and retaining students into computing. *National Science Foundation*. Funding awarded: $290,235.

Kim, Y. R., & Park, M. S. (2022). Hola STEM Program. *Driving Possibilities + Toyota USA Foundation*. Funding determination pending.

Kim, Y. R., & Park, M. S. (2019). Hola STEM middle school girls project. *HOLT CAT*. Funding awarded: $25,000.

Jozwiak, M. M., PI, Burgard, K. L. B., CoPI, Janysek, M., Writing Team, & **Kim, Y. R.**, Senior Personnel. (2019). Rooted in the community: Establishing community-based teaching and learning laboratory school sites to improve academic success of Hispanic students. *Title V Hispanic Serving Institutes Funding.* Grant total: $3,328,773. Not Funded.

Kim, Y. R., Jurica, J., Phillips, M., Yang, J., Romo, J., & Duong, H. (2018). Hola STEM: Culturally relevant STEM curricula for Hispanic american youth. *2017-2018 Strategic Planning Initiative Seed Fund at Texas A&M University-San Antonio* (Funding requested: $27,000). Funding awarded: $18,000.

Yang, J., & **Kim, Y. R.** (2018). Building a secure code analyzer in a web-based object-oriented programming environment, JaguarCode. *2017-2018 Strategic Planning Initiative Seed Fund at Texas A&M University-San Antonio.* Funding awarded: $18,000.

Kim, Y. R. (2018). STEM Integration: The effects of literacy-integrated STEM curriculum for elementary school students. *2017-2018 College of Education and Human Development*

(COEHD) Faculty Grant at Texas A&M University-San Antonio. Funding awarded: $3,000.

Kim, Y. R. (2018). Hola STEM: Culturally relevant STEM curricula for Hispanic women. Submitted to the *USAA Foundation* ($25,000). Not Funded.

Kearney, W. S., Esparza Young, E., Garcia, N., Garfield, T., Gerzel Short, L., Guerra, M., Harris, S., Janysek, M., Jozwiak, M., Jurica, J., **Kim, Y. R.**, Kwon, E., Murakami, E., Piper, R. Pittman, R., Scott, L., Vera, D., Wilson, J., & Wu, H.P. (2017). Teacher residency – training and preparation partnership RFP #17-027(AT). *U.S. Department of Education, A Sub-award of U.S. Department of Education Teacher Incentive Fund (TIF) Grant through the San Antonio Independent School District* (Funding requested: $802,600). Funding awarded: $740,000.

Kim, Y. R. (2017). Enhancing preservice teachers' knowledge for teaching mathematics using virtual manipulatives in K-12 grades. *2016-2017 Equity Budget grant through the Department of Educator & Leadership Preparation in the College of Education & Human Development at Texas A&M University-San Antonio*. Funding awarded: $3,558.

XII. HONORS AND AWARDS

Date	Description
2021	Chancellor's Academy of Teacher Educators Award (2019–2020), Texas A&M University System
2019	Faculty Recognition Award for Distinguished Teaching, College of Education & Human Development, Texas A&M University-San Antonio
2019	Faculty Recognition Award for Distinguished Scholarship, College of Education & Human Development, Texas A&M University-San Antonio
2018	Distinguished Faculty Award – Teaching, Texas A&M University-San Antonio
January 2015	Service, Teaching and Research (STaR) Fellowship, Association of Mathematics Teacher Educators (AMTE)
2012 ~ 2013	Doctoral Dissertation Fellowship, University of Minnesota Graduate School
2012 ~ 2013	Curriculum and Instruction Travel Award University of Minnesota
2011 ~ 2012	Curriculum and Instruction Travel Award University of Minnesota
February 1997	First Honors Graduate, Department of Mathematics, Soonchunhyang University, Chungchongnam-do Office of Education, South Korea

1993 ~ 1996	Scholarships for Outstanding Academic Achievement, Department of Mathematics, Soonchunhyang University, South Korea

XIII. SERVICE TO DEPARTMENT

Dates	Membership and Role(s)
2023 ~ Present	Faculty Evaluation Committee, Curriculum and Instruction • **Chair** of the Faculty Evaluation Committee (2024-2025) • **Chair** of the Faculty Evaluation Committee (2023-2024)
2020 ~ Present	Tenure & Promotion Committee Member, Curriculum and Instruction • **Chair** of the T&P Committee (2022~2023)
2025 ~ Present	Search Committee Member – Assistant Professor Position, Literacy, Curriculum and Instruction • **Chair** of the Search Committee
2024 ~ 2025	Search Committee Member – Assistant Professor Position, Generalist, Curriculum and Instruction • **Chair** of the Search Committee
2023 ~ 2024	Search Committee Member – Assistant Professor Position, Science Education, Curriculum and Instruction
2019 ~ 2020	Mentor to Lecturer, Curriculum and Instruction
2019 ~ 2020	Faculty Evaluation Committee Member, Curriculum and Instruction
2019 ~ 2020	Search Committee Member – Assistant Professor Position, Curriculum and Instruction
2018 ~ 2019	Search Committee Member – Associate Professor Position, Curriculum and Instruction
2017 ~ 2018	Search Committee Member – Lecture Position, Curriculum and Instruction
2015 ~ Present	STEM Focus Group Member • Developing a grant proposal, a summer program, and degree plans with an emphasis on STEM integration

2014 ~ 2017	Volunteer: Interviewer for the FR 1 interviews
2015 ~ 2016	Search Committee Member – Two Faculty Positions, Mathematics
2015 ~ 2016	Search Committee Member – Two Lecturer Positions, Mathematics

XIV. SERVICE TO COLLEGE

Dates	Membership and Role(s)
2025 ~ Present	COEHD Tenure & Promotion Committee
2025 ~ Present	COB Post Tenure Review Committee
2023 ~ Present	COEHD Policies & Procedures Committee
2022 ~ 2024	COEHD Search Committee Member – Dean of COEHD Position
2022 ~ 2023	COEHD Tenure & Promotion Committee
2020 ~ 2023	COEHD Assessment Committee
2021 ~ 2022	COEHD Faculty Recognition Committee • Review all proposals to make recommendations
2021 ~ 2022	COEHD Adjunct Evaluation Tool Task Force • **Chair** of the Adjunct Evaluation Tool Task Force • Develop COEHD Adjunct Evaluation Instrument
2019 ~ 2021	COEHD Diversity Committee
2019 ~ 2020	COEHD Faculty Recognition Committee • **Chair** of the Faculty Recognition Committee • Review all proposals to make recommendations
2018 ~ 2019	COEHD Faculty Mini Grant Award Committee • **Chair** of the Faculty Mini Grant Award Committee • Review all proposals to make recommendations
2017 ~ 2018	COEHD Faculty Recognition Committee • **Chair** of the Faculty Recognition Committee • Review all proposals to make recommendations

2016 ~ 2017	COEHD Faculty Grant Committee Member • Developed the application form • Reviewed all proposals to make recommendations

XV. SERVICE TO UNIVERSITY

Dates	Membership and Role(s)
2019 ~ Present	Quantitative Reasoning Advisory Committee (QRAC) Member
2023 ~ 2024	2024 A&M-SA Piper Professor Selection Committee
2019 ~ 2023	Faculty Advisor (Faculty Advising Program) • Mentoring 5-6 freshman students
2018 ~ 2021	Faculty Senator (2018~2021)
2018 ~ 2020	Graduate Council Member, A representative from the Faculty Senate • Attended the meetings, reviewed all proposals and voted for approving them
2019 ~ 2020	Parking and Transportation Advisory Committee Member
2018 ~ 2019	Quality Enhancement Plan (QEP) Committee Member • Attended the biweekly meetings • Doing a literature review • Working to complete and submit a plan/report
2016 ~ 2018	Undergraduate Curriculum Committee Member • Attended the meetings, reviewed all proposals and voted for approving them
2016 ~ 2018	Academic Technology Advisory Committee (ATAC) Member • Attended the meeting, reviewed the council charge, and planned for regular meetings
2015 ~ 2017	Information Technology Advisory Council (ITAC) Member
2015 ~ 2017	Website Committee Member
2014 ~ 2016	University Core Curriculum/General Education Curriculum Committee Member • Served as a member of the mathematics subgroup • Recommended the Mathematics GEC courses for the University Core Curriculum Plan

- Served as a member of the core assessment group for "Personal Responsibility"
- Reviewed the syllabi of several core courses in order to guide the faculty in their design and to assess whether a course meets the Foundational Component Area's goals and core objectives
- Reviewed, commented on, and voted for approving the GEC proposals

2015 ~ 2016 University Calendar Committee Member

- Attended every meeting, proposed and reviewed the materials to develop proposed yearly Academic Calendars, including 2016-2017 academic calendar.

XVI. SERVICE TO COMMUNITY

Dates	Membership and Role(s)
Nov. 3 ~ Dec. 3, 2021	**Professional development**: Supporting secondary mathematics teachers with professional learning through multiple representations. South San Antonio Independent School District
Oct. 21 ~ Nov. 15, 2019	**Director** of Hola STEM: Launching an after-school STEM robotics project (extending Hola STEM to offer after-school programs) • Developed and implemented integrated STEM activities by using robotics and coding to assist Terrell Wells Middle School, Harlandale ISD, Texas
November 9, 2019	**Organizer** of STEM Family Day: Hosting the 10th Annual CORE4 STEM Family Day at the campus of Texas A&M University-San Antonio in partnership with the San Antonio Hispanic Chamber of Commerce • Developed integrated STEM hands-on activities by using robotics and coding • Organized and implemented the activities with preservice teachers for students and parents
July 22 ~ July 25, 2019	**Director** of Hola STEM • Hosting a STEM summer school program "Hola STEM *Middle School Girls* Program" at the campus of Texas A&M University-San Antonio for middle school students from Harlandale ISD, Texas

March 25 ~ April 17, 2019	**Director** of Hola STEM: Launching an after-school STEM robotics project (extending Hola STEM to offer after-school programs) • Developed and implemented integrated STEM activities by using robotics and coding to assist Terrell Wells Middle School, Harlandale ISD, Texas
November 3, 2018	**Organizer** of STEM Family Day: Hosting the 9th Annual CORE4 STEM Family Day at the campus of Texas A&M University-San Antonio in partnership with the San Antonio Hispanic Chamber of Commerce • Developed integrated STEM hands-on activities by using robotics and coding • Organized and implemented the activities with preservice teachers for students and parents
July 23 ~ August 2, 2018	**Director** of Hola STEM • Hosting a STEM summer school program "Hola STEM" at the campus of Texas A&M University-San Antonio for elementary students from Harlandale ISD, Texas
April 9 ~ May 2, 2018	Launching an after-school STEM robotics project • Developed and implemented integrated STEM activities by using robotics and coding to assist Columbia Heights Elementary, Harlandale ISD, Texas
April 16~20, 2018	A volunteer for the Week of the Young Child project • Collaboration with Early Child Program in the Department of Educator and Leadership Preparation: Developed and implemented STEAM activities for young children on April 19, 2018
February 2017 ~ Present	A volunteer for the project to assist Stewart Elementary • Collaboration with the Department of Counseling, Health, and Kinesiology: Planned to integrate math into a fitness program with Dr. Eunhye Kwon
October 24, 2016	A volunteer to run a STEM night at Wilson Elementary Edgewood ISD, Texas

- Developed and prepared several math games/activities to help the Wilson Elementary Edgewood ISD run a STEM night
- Organized the games/activities with preservice teachers for the Wilson Elementary students
- Stayed the full hours and provided the elementary students with a fun filled night

Jan 2014 ~ May 2014	A volunteer math tutor at the International Institute of Minnesota • Taught math in the college readiness program for immigrants

XVII. PROFESSIONAL SERVICE

Dates	Membership and Role(s)
2024 ~ Present	**Editorial Review Board** of the *Electronic Journal for Research in Science and Mathematics Education (EJRSME)*
2021 ~ 2023	**Advisory Committee** Member for VisionCoders
2017 ~ Present	**Editorial Board** for the *Journal of Science Education for the Gifted*, an official peer-reviewed journal of the Korean Science Education Society for the Gifted
2017 ~ Present	**Editorial Board** for the *Journal of Education and Social Development (JESD)*
2017 ~ Present	Reviewer for the *Contemporary Issues in Technology and Teacher Education – Math (CITE-Math)*, an international peer-reviewed publication of the Association for the Advancement of Computing in Education (AACE)
2011 ~ Present	Reviewer for the Statistics Editorial Board of *Multimedia Educational Resource for Learning and Online Teaching (MERLOT)*
2011 ~ Present	Reviewer for the *Annual Conference & Exposition of American Society for Engineering Education (ASEE)*: Educational Research and Methods Division
2010 ~ Present	Reviewer for the *Journal of Mathematical Behavior* (JMB)
May 2011	Reviewer for the *Journal of Statistics Education* (JSE)

XVIII. PROFESSIONAL AFFILIATIONS

Date	Description

2019 ~ Present	Member of School Science and Mathematics Association (SSMA)
2019 ~ Present	Member of Association of Mathematics Teacher Educators in Texas (AMTE-TX)
2014 ~ Present	Member of the Association of Mathematics Teacher Educators (AMTE)
2014 ~ Present	Member of the Texas Council of Teachers of Mathematics (TCTM)
2012 ~ Present	Member of the American Educational Research Association (AERA): Division C (Learning and Instruction)
2011 ~ Present	Member of the Multimedia Educational Resource for Learning and Online Teaching (MERLOT)
2007 ~ Present	Member of the National Council of Teachers of Mathematics (NCTM)
2010 ~ 2016	Member of the Minnesota Council of Teachers of Mathematics (MCTM)