

JUNG Y. COLEN
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EDUCATION

- Ph.D. in Curriculum and Instruction (with an emphasis in Mathematics Education)
The Pennsylvania State University (2013-2019)
Graduate Student Online Teaching Certificate
- M.Ed. in Elementary and Middle School Mathematics Education
Indiana University of Pennsylvania (2010-2011)
- B.A. in Educational Technology
Ewha Womans University, South Korea (1993-1998)
Teaching Credential: South Korea (grades 7 to 12)

PROFESSIONAL EXPERIENCE

- Associate Professor of Mathematics Education (Aug. 2023-Present) – Bellarmine University
- Associate Professor of Mathematics Education (Aug. 2022-Aug. 2023, with tenure) – Chadron State College
Assistant Professor of Mathematics Education (Aug. 2020-2022)
- Mathematics Teacher (July 2019-July 2020) – St. Margaret's School (grades 8 to 12)
- Mathematics Instructor (Aug. 2015-Dec. 2018) – Indiana University of Pennsylvania
- Graduate Instructor (Aug. 2013-May 2015) – The Pennsylvania State University
- Graduate Assistant (Aug. 2010-May 2011) – Indiana University of Pennsylvania
- Mathematics Teacher (1995-1998) – Sung Ji Academy (grades 5 to 10)
- Student Teacher (1996) – Ewha Womans University Junior High School (grades 7 to 9)
- Mathematics and Science Workbooks Editor (1996) – Jung Il Academy (grades 7 to 9)
- Private Mathematics and English Tutor (1993-1996)

PUBLICATIONS

- Colen, J., Colen, Y. & Dunning, A. (2023). *Using student work to engender a whole-class discussion*. Manuscript submitted for review. *Mathematics Teacher: Learning and Teaching PK-12*.
- Colen, J. & Colen, Y. (2023). *Mathematical knowledge for teaching geometry in the context of the arts*. Manuscript submitted for review. *Connections*.
- Kwon, N., Colen, J., Yeo, S., Cho, H., & Kim, J. (2023). *Mathematics teacher educators' noticing on microteaching*. Manuscript submitted for review. *Teaching and Teacher Education*.
- Colen, J. & Colen, Y. (2023). *fostering empowerment of low self-confident math students*. Manuscript submitted for review. *For the Learning of Mathematics*.
- Yeo, S., Colen, J., Kwon, N., Cho, H., Kim, J., & Lim, W. (2022). Development of mathematical task analytic framework: Proactive and reactive features. *Journal of the Korean Society of Mathematics Education, Series D: Research in Mathematics Education, 25(4)*, 285-309.
- Colen, J., Yeo, S., Kwon, N., Cho, H., & Kim, J. (2021). Teaching Moves for Students' Mathematical Proficiencies in Multiplication Lessons. *Journal of the Korean Society of Mathematics Education, Series D: Research in Mathematics Education, 24(4)*, 279-312.
- Colen, Y. & Colen, J. (2021). Where's the procedural fluency? *Journal of the Korean Society of Mathematics Education, Series D: Research in Mathematics Education, 24(1)*, 1-27.
- Colen, J., Kwon, N., Yeo, S., Kim, Cho, H., Lim, W., & Kim, J. (2020). Mathematics teacher educators' shared vision on microteaching. *Proceedings of the International Conference of the Korean Society of Mathematical Education* (pp.197-200). Seoul, Korea.
- Yeo, S., Kim, J., Kwon, N., Cho, H., Colen, J., & Lim, W. (2020). Development of enacted task framework in mathematics classroom. In B. E. Seo, K. B. Choi, & M. G. Park (Eds.), *Proceedings of the Spring Conference of Korean Society Mathematics Education* (pp.162-166). Seoul, Korea.

- Colen, J. (2020). Elementary school teachers' understanding of mathematical modeling. *Proceedings of the Hawaii International Conference on Education*.
- Yeo, S., Kim, J., Kwon, N., Cho, H., & Colen, J. (2020). The Development of Constructive Mathematics Task Framework. *Proceedings of the Hawaii International Conference on Education*.
- Semenov, M., Colen, Y. & Colen, J. (2020). An introduction to the Edumatrix and its didactic capabilities, *Journal of the Korean Society of Mathematics Education, Series D: Research in Mathematics Education, 23(1)*, 47-62.
- Colen, J., & Colen, Y. (2019). *Liberal Arts Mathematics*. Dubuque, IA: Kendall Hunt Publishing Company.
- Colen, J. (2019). Elementary school teachers' beliefs of the Common Core State Standards for Mathematical Practice, *Journal of the Korean Society of Mathematics Education, Series D: Research in Mathematics Education, 22(1)*, 47-82.
- Colen, J. (2019). Elementary school teachers' conceptions of the Common Core State Standards for Mathematical Practice, [Doctoral dissertation, Pennsylvania State University] https://etda.libraries.psu.edu/files/final_submissions/19095
- Chapin, S., O'Connor, C., & Canavan, N. (2016). Classroom discussions in math: A teacher's guide for using talk moves to support the Common Core and more, grades K-6. (J. Kim, J. Lee, J. Colen, S. Kim, & D. Lee, Trans.). Sausalito, CA: Math Solutions. (Original work published 2013)
- Colen, Y., Colen, J., & Kim, J. (2015). The common core mathematics standards and implications for the South Korean curriculum. In J. Kim, I. Han, M. Park, & J. Lee (Eds.), *Mathematics Education in Korea: Contemporary Trends in Researches in Korea* (191-232). Hackensack, NJ: World Scientific Publishing Company.
- Colen, J., Colen, Y., & Kim, J. (2015). Elementary school teachers' facilitation of math talk. *Proceedings of the Jangjeon Mathematical Society, 18(4)*, 579-591.
- Colen, Y., & Colen J. (2014). *Intermediate algebra: Learning through classroom discourse*. Dubuque, IA: Kendall Hunt Publishing Company.
- Kim, J., Colen, Y., & Colen, J. (2012). Reform-based instruction in Korea: Looking over its promises to discover its successes. In J. Kim, I. Han, M. Park, and J. Lee (Eds.), *Mathematics Education in Korea: Curricular and Teaching and Learning Practices* (104-129.) Hackensack, NJ: World Scientific Publishing Company.
- Colen, Y., Navaratna, C., Colen, J., & Kim, J. (2012). Power indices and U.S. presidential elections. *Mathematics Teacher, 106(3)*, 184-190.

PRESENTATIONS

- "Empowering Low Self-Confident Math Learners through Improv Teaching" at the 2023 Annual Association of Mathematics Teacher Educators (AMTE) Conference, New Orleans, LA (February 2-4, 2023)
- "Improv Teaching: Fostering Empowerment through Purposeful Learning" at the National Council of Teachers of Mathematics (NCTM) Research Conference, Los Angeles, CA (September 28 - 29, 2022)
- "Teaching Moves for Students' Mathematical Proficiencies in Multiplication Lessons" at the 2021 Nebraska Association of Teachers of Mathematics (NATM) Conference, Younes Conference Center, Kearney, NE (March 28, 2022)
- "Development of Mathematical Task Enactment Framework" at the 2022 Association of Mathematics Teacher Educators (AMTE) Conference, Las Vegas, NV (February 10-12, 2022)
- "Mathematics teacher educators' shared vision on microteaching." Session to be presented at the International Conference of the Korean Society of Mathematical Education, Seoul, Korea (December 12, 2020).
- "The Banzhaf and Shapley-Shubik power indices and the 2020 U.S. presidential election." Chadron State College Mathematics Seminar, Chadron, NE (October 26, 2020).
- "Development of enacted task framework in mathematics classroom" at the Spring Conference of Korean Society of Mathematics Education Conference on Education, Seoul, Korea (August, 21, 2020).

- "The Development of Constructive Mathematics Task Framework" at the Hawaii International Conference on Education, Honolulu, HI (January 4, 2020).
- "Elementary school teachers' understanding of mathematical modeling" at the Hawaii International Conference on Education, Honolulu, HI (January 4, 2020). Served as a session chair.
- "Developing pedagogical content knowledge: The Singapore model" at Tomsk State University, Russia (November 22, 2019)
- "'Plickers' as a formative assessment tool" at the *Ohio-PKAL Annual Conference* in Alliance, OH (May 19, 2018)
- "How do teacher journals integrate mathematics with other subjects?" at the *Annual National Council of Teachers of Mathematics (NCTM) Research Conference* in San Francisco, CA (April 12, 2016)
- "Is STEM education a 'thing'?": The integration of mathematics with other subjects in teacher journals" at the *AERA Annual Meeting* in Washington, DC (April 10, 2016)
- "Power indices and U.S. presidential elections" at the *Regional NCTM Conference and Exposition* in Atlantic City, NJ (October 22, 2015)
- "Elementary school teacher's facilitation of mathematical talk" at the *27th International Conference of the Jangjeon Mathematical Society* in Daejeon, South Korea (August 4, 2014)
- "Elementary school teacher's knowledge of geometry in the context of art" at the *Pennsylvania Association of Mathematics Teacher Educators (PAMTE) Symposium* in Shippensburg, PA (May 15, 2014)
- "Parents' reflections in working with a 4th-grader and his mathematical learning" at the *Annual Pennsylvania Council of Teachers of Mathematics (PCTM) Conference* in Camp Hill, PA (November 11, 2011)
- "Discrete mathematics in the elementary grades" at the *Annual Mathematics Association of America (MAA) Allegheny Mountain Sectional Meeting* in Clarion, PA (April 9, 2011)
- "Teaching map coloring to elementary students" at the *PA State System of Higher Education Mathematics Association (PA-SSHEMA) Annual Conference* in Canonsburg, PA (April 2, 2011)
- "A lesson on the Pythagorean Theorem with *the Geometer's Sketchpad*" at the *Regional Teachers Teaching with Technology Conference* in Indiana, PA (March 7, 2009)
- "Solving quadratic equations like the Greeks: A *Geometer's Sketchpad* activity" at the *Regional Teachers Teaching with Technology Conference* in Indiana, PA (March 18, 2006)
- "Instructional technology" at the *Annual Educational Technology Exhibition* in Seoul, South Korea (October 30, 1995)

PROFESSIONAL OUTREACH ACTIVITIES

- Coordinator of Mathematics Learning Program for Saint Agnes Catholic School, Louisville, KY (August 2023-May2024)
- National Council of Teachers of Mathematics 2023 Research Conference Reviewer (March 2023)
- Editorial Board Member of *Journal of the Korean Society of Mathematics Education, Series D: Research in Mathematics Education* (January 2023-present)
- S.Korea Mathematics Textbook Revision Team (September, 2022-present)
- Mathematics Game Nights in Chadron School District (August, 2022-present)
- Afterschool Mathematics Program in Chadron School District (August, 2021-present)
- Reviewer of *Journal of the Korean Society of Mathematics Education, Series D: Research in Mathematics Education* (2018-present)
- Reader of the College Board AP Statistics Exams (Kansas City, MO, 2017-present)
- Manuscript Reviewer for AMTE Publication Submission (2021, 2022)
- Moderator for International Plenary Panel Discussion at the International Conference of the Korean Society of Mathematical Education (Seoul, Korea, December 11, 2020)
- Manuscript Referee for NCTM's *Mathematics Teacher*, *Mathematics Teaching in the Middle School*, and *Teaching Children Mathematics* (2014-2019)

PROFESSIONAL MEMBERSHIPS

- Association of Mathematics Teacher Educators
- National Council of Teachers of Mathematics
- Nebraska Association of Teachers of Mathematics
- Mathematics Council of Western Pennsylvania
- American Educational Research Association
- Korean Society of Mathematics Education
- Kappa Mu Epsilon (National Mathematics Honor Society)
- Phi Eta Sigma (National Honor Society)

AWARDS & RECOGNITIONS

- JMM PUI Faculty Travel Grant Award supported by American Mathematical Society (Nov, 2022)
- National Science Foundation and Nebraska EPSCoR Outreach Funding Grant Award (2022-2023)
- Chadron State College Dean's Council Award (2021, 2022)
- Chadron State College Research Institute Grant (2021)
- A fellow for Association of Mathematics Teacher Educators (AMTE) STaR (Service Teaching and Research) in Mathematics Education Fellows Program (2021)
- American Mathematical Society Travel Grant to Attend the 2018 International Congress of Mathematicians at Rio de Janeiro, Brazil (2018)
- American Mathematical Society Travel Grant to Attend the 2018 SACNAS (Success of Chicanos/Hispanics and Native Americans) at San Antonio, Texas (2018)
- Heid-Blume-Zbiek Graduate Endowment Scholarship from the Pennsylvania State University (2018)
- Certification of Recognition from the College Board and ETS (2017-2022)
- American Mathematical Society Travel Grant to Attend the 2017 SACNAS (Success of Chicanos/Hispanics and Native Americans) at Salt Lake City, Utah (2017)
- Pommersheim Scholarship in Education from the Pennsylvania State University (2016)
- The Pennsylvania State University Graduate Student Assistantship (2013-2015)
- Frederick Douglass Human Development Award from the African American Cultural Center of Indiana University of Pennsylvania (2011)
- Outstanding Student Award from the African American Cultural Center of Indiana University of Pennsylvania (2011)
- Dr. Willard Hennemann Jr. Memorial Scholarship from the Mathematics Department of Indiana University of Pennsylvania (2011)
- Indiana University of Pennsylvania Graduate Student Assistantship (2010-2011)
- Jung Il Academy Scholarship (1996-1997)
- Ewha Womans University Student Affairs Scholarship (1995)

SELECTIVE CONFERENCE & WORKSHOP PARTICIPATIONS

- *Mathematical Sciences Research Institute* sponsored "Critical Issues in Mathematics Education: Mentoring for Equity" (Berkeley, CA, March 2023), "Initiating, Sustaining, and Researching Mathematics Department Transformation of Introductory Courses for STEM Majors" (March 2022), "Mathematical Modeling in K-16: Community and Cultural Contexts" (March 2019), "Access to Mathematics by Opening Doors for Students Currently Excluded from Mathematics" (February 2018), "Observing for Access, Power, and Participation in Mathematics Classrooms as a Strategy to Improve Mathematics Teaching and Learning" (March 2017), "Observing, Evaluating and Improving Mathematics Teaching from the Early Grades through the University" (February 2016), "Developmental Mathematics: For Whom? Toward What End?" (March 2015), and "Teacher Education in View of the Common Core" (March 2012).
- *Mathematics Teacher Education Partnership (MTEP) and AMTE Get the Facts Out (GFO)* sponsored "Transforming Secondary Mathematics Teacher Preparation: Focus on Recruitment and Equity" (New Orleans, LA, February 2023).
- *AMTE STaR Institute Meeting* at Park City, Utah (June 2022)

- *The Statistical and Applied Mathematical Sciences Institute (SAMSI)* sponsored “Modern Math Workshop” & “SACNAS: The National Diversity in STEM Conference” (San Antonio, TX, October 2018).
- *American Mathematical Society* sponsored the “International Congress of Mathematicians” (Rio de Janeiro, Brazil, August 2018).
- *The Charles A. Dana Center at the University of Texas at Austin* sponsored “International Facilitation Fellows Academy” (May 2018).

UNIVERSITY SERVICE

- Member of Graduate Council (Since Fall 2022)
- Member of Campus Wide Assessment Committee - Academic Programs Subcommittee (Since Fall 2020)
- Member of Education Preparation Program Committee (Since Fall 2020)
- Member of Fall Fund Drive team (Since Fall 2020)
- Graduate Thesis Advisor (Since Fall 2022)
- Graduate Oral Exam Committee of graduates students (Since Fall 2020)