# **YASEMIN COPUR-GENCTURK**

# Rossier School of Education University of Southern California 3470 Trousdale Parkway, Los Angeles, CA 90089 <u>copurgen@usc.edu</u>

PROFESSIONAL APPOINTMENTS	
Associate Professor, University of Southern California	2022 -
Assistant Professor, University of Southern California	2018 - 2022
Research Professor, University of Southern California	2016 - 2018
Assistant Professor, University of Houston	2013 - 2016
Postdoctoral Research Associate, Rice University	2012 - 2013
EDUCATION	
Ph.D. in Mathematics Education	2012
University of Illinois at Urbana-Champaign	
M.S. in Statistics	2010
Ed M in Secondary and Continuing Education	2007
University of Illinois at Urbana-Champaign	2007
<b>B.S.</b> (summa cum laude) in Mathematics	2003
Hacettepe University, Ankara, Turkey	
HONORS & AWARDS	
HONORS & AWARDS NSF Fellow for SIARM for STEM Education Research	2021-2023
HONORS & AWARDS NSF Fellow for SIARM for STEM Education Research Excellence in Research Award, USC Rossier School of Education	2021-2023 2020
HONORS & AWARDS NSF Fellow for SIARM for STEM Education Research Excellence in Research Award, USC Rossier School of Education AERA Open Outstanding Reviewer Award	2021-2023 2020 2019
HONORS & AWARDS NSF Fellow for SIARM for STEM Education Research Excellence in Research Award, USC Rossier School of Education AERA Open Outstanding Reviewer Award Early Career Publication Award, AERA's Special Interest Group for Research in Mathematics Education	2021-2023 2020 2019 2016
HONORS & AWARDS NSF Fellow for SIARM for STEM Education Research Excellence in Research Award, USC Rossier School of Education AERA Open Outstanding Reviewer Award Early Career Publication Award, AERA's Special Interest Group for Research in Mathematics Education William Chandler Bagley Doctoral Scholarship	2021-2023 2020 2019 2016 2011-2012
HONORS & AWARDS NSF Fellow for SIARM for STEM Education Research Excellence in Research Award, USC Rossier School of Education AERA Open Outstanding Reviewer Award Early Career Publication Award, AERA's Special Interest Group for Research in Mathematics Education William Chandler Bagley Doctoral Scholarship Hardie Conference Travel Award	2021-2023 2020 2019 2016 2011-2012 2011
<ul> <li>HONORS &amp; AWARDS</li> <li>NSF Fellow for SIARM for STEM Education Research</li> <li>Excellence in Research Award, USC Rossier School of Education</li> <li>AERA Open Outstanding Reviewer Award</li> <li>Early Career Publication Award, AERA's Special Interest Group for</li> <li>Research in Mathematics Education</li> <li>William Chandler Bagley Doctoral Scholarship</li> <li>Hardie Conference Travel Award</li> <li>Conference Travel Grant, Department of Curriculum and Instruction, University of Illinois</li> </ul>	2021-2023 2020 2019 2016 2011-2012 2011 2008
<ul> <li>HONORS &amp; AWARDS</li> <li>NSF Fellow for SIARM for STEM Education Research</li> <li>Excellence in Research Award, USC Rossier School of Education</li> <li>AERA Open Outstanding Reviewer Award</li> <li>Early Career Publication Award, AERA's Special Interest Group for</li> <li>Research in Mathematics Education</li> <li>William Chandler Bagley Doctoral Scholarship</li> <li>Hardie Conference Travel Award</li> <li>Conference Travel Grant, Department of Curriculum and Instruction, University of Illinois</li> <li>Turkish Education Ministry Scholarship for Master's Degree</li> </ul>	2021-2023 2020 2019 2016 2011-2012 2011 2008 2005-2007
<ul> <li>HONORS &amp; AWARDS</li> <li>NSF Fellow for SIARM for STEM Education Research</li> <li>Excellence in Research Award, USC Rossier School of Education</li> <li>AERA Open Outstanding Reviewer Award</li> <li>Early Career Publication Award, AERA's Special Interest Group for</li> <li>Research in Mathematics Education</li> <li>William Chandler Bagley Doctoral Scholarship</li> <li>Hardie Conference Travel Award</li> <li>Conference Travel Grant, Department of Curriculum and Instruction, University of Illinois</li> <li>Turkish Education Ministry Scholarship for Master's Degree</li> <li>Ranked in the top 500 students among over 135,000 bachelor and bachelor candidates on Graduate Education Examination, a nation-wide test in Turkey</li> </ul>	2021-2023 2020 2019 2016 2011-2012 2011 2008 2005-2007 2003

# PEER-REVIEWED JOURNAL ARTICLES

- Copur-Gencturk, Y., Li\*, J., Cohen, A., & Orrill, C. H. (2023). The Impact of an Interactive, Personalized Computer-Based Teacher Professional Development Program on Student Performance: A Randomized Experiment. *Computers & Education*. <u>https://doi.org/10.1016/j.compedu.2023.104963</u>
- Copur-Gencturk, Y. & Orrill, C. (2023). A Promising Approach to Scaling Up Professional Development: Intelligent, Interactive, Virtual Professional Development with Just-in-Time Feedback. *Journal of Mathematics Teacher Education*. <u>https://doi.org/10.1007/s10857-023-09615-1</u>
- 3. Woods<sup>\*</sup>, P. J. & **Copur-Gencturk**, **Y**. (2023). Examining the role of student-centered versus teacher-centered pedagogical approaches to self-directed learning through teaching. *Teaching and Teacher Education. https://doi.org/10.1016/j.tate.2023.104415*
- 4. **Copur-Gencturk, Y.,** Thacker, I\*., & Cimpian, J.P. (2023). Teachers' Gender Bias and the Moderating Effects of Modern Sexism and Math Anxiety. *International Journal of STEM Education*.
- 5. Ezaki, J\*., Li, J\*., & **Copur-Gencturk, Y.** (2023). Teachers' Knowledge of Fractions, Ratios, and Proportional Relationships: The Relationship Between Two Theoretically Connected Content Areas. *International Journal of Science and Mathematics Education*.
- Rodrigues P., Singh R., Oytun M., Adami P., Woods P. J., Becerik-Gerber B., Soibelman L., Copur-Gencturk Y., & Lucas G. (2023). A multidimensional taxonomy for human-robot interaction in construction. *Automation in Construction*. <u>https://doi.org/10.1016/j.autcon.2023.104845</u>
- Adami, P., Singh R., Rodrigues P.B., Becerik-Gerber, B., Soibelman, L., Copur-Gencturk, Y., & Lucas, G. (2023). Participants matter: Effectiveness of VR-based training on the knowledge, trust in the robot, and self-efficacy of construction workers and university students. Advanced Engineering Informatics. <u>https://doi.org/10.1016/j.aei.2022.101837</u>
- 8. **Copur-Gencturk, Y. &** Li, J\*. (2023). A Longitudinal Study of Mathematics Teachers' Knowledge Growth. *Teaching and Teacher Education*. <u>https://doi.org/10.1016/j.tate.2022.103949</u>
- Copur-Gencturk Y. & Choi. H & Cohen A. (2023). Investigating Teachers' Understanding Through Statistical Topic Modeling: A New Approach to Studying Teachers' Content Knowledge. Journal of Mathematics Teacher Education. <u>https://doi.org/10.1007/s10857-021-09529-w</u>
- 10. **Copur-Gencturk Y.**, Baek C\*. & Doleck. T\*. (2023). A Closer Look at Teacher's Proportional Reasoning. *International Journal of Science and Mathematics Education*. <u>https://doi.org/10.1007/s10763-022-10249-7</u>
- 11. **Copur-Gencturk, Y.,** Thacker, I\*., & Cimpian, J.P. (2022). Teacher Bias in the Virtual Classroom. *Computers & Education*. <u>https://doi.org/10.1016/j.compedu.2022.104627</u>
- Copur-Gencturk, Y. & Tolar T. (2022). Mathematics teaching expertise: A study of the dimensionality of content knowledge, pedagogical content knowledge, and content-specific noticing skills. *Teaching and Teacher Education*. <u>https://doi.org/10.1016/j.tate.2022.103696</u>
- 13. Adami, P., Rodrigues, Rodrigues. P., Wood. P. J., Becerik-Gerber, B., Soibelman, L., Copur-Gencturk, Y., & Lucas, G. (2022). Impact of VR-based Training on Human-Robot Interaction for Remote Operating Construction Robots. *Journal of Computing in Civil Engineering, 36(3), 04022006.* https://ascelibrary.org/doi/abs/10.1061/%28ASCE%29CP.1943-5487.0001016

- 14. **Copur-Gencturk Y.** & Rodrigues. J\*. (2021). Content-specific noticing: A large-scale survey of mathematics teachers' noticing. *Teaching and Teacher Education*. <u>https://doi.org/10.1016/j.tate.2021.103320</u>
- 15. **Copur-Gencturk Y.,** Olmez, I.B\*. (2021). Teachers' Attention to and Flexibility with Referent Units. *International Journal of Science and Mathematics Education*. <u>https://doi.org/10.1007/s10763-021-10186-x</u>
- 16. Choi H., Kim S., Cohen A.S, Templin J., & Copur-Gencturk, Y. (2021). Integrating a Statistical Topic Model and a Diagnostic Classification Model for Analyzing Items in a Mixed Format Assessment. *Frontiers in Psychology*. <u>https://doi.org/10.3389/fpsyg.2020.579199</u>
- 17. **Copur-Gencturk., Y. &** Doleck. T\*. (2021). Linking Teachers' Solution Strategies to Their Performance on Fraction Word Problems. *Teaching and Teacher Education*. https://doi.org/10.1016/j.tate.2021.103314
- Copur-Gencturk Y. (2021). Teachers' Knowledge of Fraction Magnitude. International Journal of Science and Mathematics Education. <u>https://doi.org/10.1007/s10763-021-10173-</u> 2
- *19.* **Copur-Gencturk, Y.,** Doleck, T\*. (2021). Strategic competence for multistep fraction word problems: an overlooked aspect of mathematical knowledge for teaching. *Educational Studies in Mathematics*. <u>https://doi.org/10.1007/s10649-021-10028-1</u>
- 20. **Copur-Gencturk, Y.**, Jacobson, D. E., & Rasiej, R. (2021). On the Alignment of Teachers' Mathematical Content Knowledge Assessments with the Common Core Standards. *Journal of Mathematics Teacher Education*. <u>https://doi.org/10.1007/s10857-021-09486-4</u>
- Copur-Gencturk Y. (2021). Teachers' Conceptual Understanding of Fraction Operations: Results from a National Sample of Elementary School Teachers. *Educational Studies in Mathematics*. <u>https://doi.org/10.1007/s10649-021-10033-4</u>
- Adami, P., Rodrigues, P., Wood. P. J., Becerik-Gerber, B., Soibelman, L., Copur-Gencturk, Y., & Lucas, G. (2021). Effectiveness of VR-based Training on Improving Construction Workers' Knowledge, Skills, and Safety Behavior in Robotic Teleoperation. Advanced Engineering Informatics. <u>https://doi.org/10.1016/j.aei.2021.101431</u>
- 23. Copur-Gencturk, Y., & Thacker, I\*. & Quinn, D. (2020). K-8 Teachers' Overall and Gender-Specific Beliefs About Mathematical Aptitude. *International Journal of Science and Mathematics Education*. <u>https://doi.org/10.1007/s10763-020-10104-7</u>
- 24. **Copur-Gencturk, Y.,** Thacker, I\*. (2020). A Comparison of Perceived and Observed Learning from Professional Development: Relationships Among Self-Reports, Direct Assessments, and Teacher Characteristics. *Journal of Teacher Education*. https://doi.org/10.1177/0022487119899101
- 25. Orrill, C.H., **Copur-Gencturk, Y.,** Cohen, A., & Templin, J. (2020). Revisiting Purpose and Conceptualization in the Design of Assessments for Teachers of Mathematics. *Research in Mathematics Education*. <u>10.1080/14794802.2019.1702893</u>
- 26. **Copur-Gencturk, Y**., Cimpian J., Lubienski S., & Thacker, I\* (2020). Teachers' Bias Against the Mathematical Ability of Female, Black and Hispanic Students. *Educational Researcher*. <u>https://doi.org/10.3102/0013189X19890577</u>
- 27. **Copur-Gencturk, Y.,** & Plowman, D., & Bai, H. (2019). Mathematics Teachers' Learning: Identifying Key Learning Opportunities Linked to Teachers' Knowledge Growth. *American Educational Research Journal*. <u>https://doi.org/10.3102/0002831218820033</u>

- 28. **Copur-Gencturk, Y.,** Tolar T., Jacobson. E., & Fan. W. (2019). An Empirical Study of the Dimensionality of the Mathematical Knowledge for Teaching Construct. *Journal of Teacher Education*. <u>https://doi.org/10.1177/0022487118761860</u>
- 29. Copur-Gencturk, Y., & Papakonstantinou, A. (2016). Sustainable changes in teacher practices: a longitudinal analysis of the classroom practices of high school mathematics teachers. *Journal of Mathematics Teacher Education*, 19(6), 575-594. <u>https://doi.org/10.1007/s10857-015-9310-2</u>
- 30. Copur-Gencturk, Y. (2015). The Effects of Changes in Mathematical Knowledge on Teaching: A Longitudinal Study of Teachers' Mathematical Knowledge and Instruction. Journal for Research in Mathematics Education, 46(3), 280-330. https://doi.org/10.5951/jresematheduc.46.3.0280
- *31.* Lubienski, S. T., Hug, B., & **Copur-Gencturk**, Y. (2014). Lessons from a Math-Science Partnership. *Teacher Education and Practice*, 27, 316-330.
- 32. **Copur-Gencturk, Y.,** Hug, B., & Lubienski, S.T. (2014). The Effects of a Master's Program on Teachers' Science Instruction: Comparing Classroom Observations, Teacher Reports, and Student Surveys. *Journal of Research in Science Teaching*, *51*(2), 219-249. https://doi.org/10.1002/tea.21135

Response to commentaries on Robinson et al. (2014):

- Robinson-Cimpian, J. P., Lubienski, S. T., Ganley, C. M., & Copur-Gencturk, Y. (2014). Are schools shortchanging boys or girls? The answer rests on methods and assumptions: Reply to Card (2014) and Penner (2014). Developmental Psychology, 50(6), 1840-1844. <u>https://doi.org/10.1037/a0036693</u>
- 34. Robinson-Cimpian, J. P., Lubienski, S. T., Ganley, C. M, **Copur-Gencturk, Y.** (2014). Teachers' perceptions of students' mathematics proficiency may exacerbate early gender gaps in achievement. *Developmental Psychology*, 50(4), 1262-1281. <u>https://doi.org/10.1037/a0035073</u>
- 35. **Copur-Gencturk, Y.**, & Lubienski, S. T. (2013). Measuring Mathematical Knowledge for Teaching: A Longitudinal Study Using Two Measures. *Journal of Mathematics Teacher Education*, 1-26. <u>https://doi.org/10.1007/s10857-012-9233-0</u>

# **INVITED PUBLICATIONS**

- 36. Thacker, I., **Copur-Gencturk, Y.,** & Cimpian, J.P. (*2022*). Teacher bias: A discussion with special emphasis on gender and STEM learning. In McCaslin. M. &Good. T. (Eds). The Routledge Encyclopedia of Education.
- 37. **Copur-Gencturk, Y.**, (2022). Achieving Equity and Excellence in Mathematics Teaching. *State Education Standard*.
- 38. Miller, E., Makowski, M., **Copur-Gencturk, Y.**, & Lubienski, S. (2017). Large-Scale Data, Larger Possibilities: A Review of *Large-Scale Studies in Mathematics Education. Journal for Research in Mathematics Education*, 48(2), 224-228.

# **UNDER REVIEW PAPERS**

- 39. **Copur-Gencturk, Y.,** Thacker, I\*., & Cimpian, J.P. (*accepted with major revisions*). Teachers' Attributional Race and Gender Bias and the Moderating Effects of Modern Sexism, Math Anxiety, and Personal Experience of Racial Discrimination.
- 40. **Copur-Gencturk, Y. &** Ezaki, J\*., (*under review*). Missing Link: How Teachers' Understanding of Student Misunderstandings is Key to their Instructional Response.

- 41. **Copur-Gencturk, Y**. & Ezaki<sup>\*</sup>, J. (Under Review). Middle School Mathematics Teachers' Proportional Reasoning and its Relation to Their Content and Pedagogical Content Knowledge.
- 42. **Copur-Gencturk, Y. &** Li, J\*. (Accepted with minor revisions). Learning Through Teaching: What Do Novice Mathematics Teachers Learn in the Teaching Profession?
- 43. **Copur-Gencturk, Y**., Li, J., & Atabas, S. (revise and resubmit). Scaled-Up Professional Development: The Impact on Instruction of an Intelligent, Interactive Program with Just-in-Time Feedback.
- 44. **Copur-Gencturk, Y**., & Atabas, S. (under review). A Microgenetic Analysis of Teachers' Learning Through Teaching.

### **CONFERENCE PROCEEDINGS & PRESENTATIONS**

- C1. **Copur-Gencturk, Y**. & Atabas, S. (2024). A Comprehensive Analysis of Teachers' Feedback Practices: A Large-Scale Survey Study. Paper Presentation at the Association of Mathematics Teacher Educators Conference in Orlando, FL.
- C2. **Copur-Gencturk, Y.** & Jingxian Li (2023). The Impact of an Interactive, Personalized Computer-Based Teacher Professional Development Program on Student Achievement: A Randomized Experiment. Paper Presentation at the Association for Education Finance and Policy Conference, Denver, CO.
- C3. **Copur-Gencturk**, Y. & Atabas, S., & Park, D. (2023). Capturing Race- and Gender-Based Bias in the Context of Feedback on Written Student Work. Workshop at the National Council of Teachers of Mathematics Research Conference, Washington, DC.
- C4. **Copur-Gencturk, Y**., & Li, J\*. (2023). Impact of A Computerized Teacher Professional Development Program on Student Learning. Paper to be presented at the National Council of Teachers of Mathematics 2023 Annual Meeting & Exposition. Washington, D.C.
- C5. Ezaki, J., & **Copur-Gencturk**, **Y.** (2023). Exploring Teachers' Knowledge of Student (Mis)understandings of Ratios & Proportions. Paper presented at the National Council of Teachers of Mathematics; October, 2023, Washington, D.C.
- C6. Ezaki, J., & Copur-Gencturk, Y. (2023). Investigating the Meaningfulness of the Characterization of Teachers' Proportional Reasoning Level. Paper presented at the American Educational Research Association; April, 2023, Chicago, IL.
- C7. **Copur-Gencturk, Y.**, & Ezaki, J. (2023). Missing Link: How Teachers' Understanding of Students' Fraction Misunderstandings is Key to their Instructional Response. Paper presented at the American Educational Research Association; April, 2023, Chicago, IL
- C8. Singh, R., Atabas, S., & **Copur-Gencturk**, **Y**. (2023). Scaled-Up Professional Development: The Impact of an Intelligent, Interactive Online Program on Instruction. American Education Research Association 2023 Annual Meeting, Chicago, IL.
- C9. **Copur-Gencturk, Y**., & Ezaki, J. (2023). How Teachers' Knowledge of Students' Common Fraction Misunderstandings Informs their Instructional Decisions. Paper presented at the Association of Mathematics Teacher Educators; February, 2023, New Orleans, LA.
- C10. **Copur-Gencturk, Y**., & Atabas, S. (2023). Toward Advancing Middle School Teachers' Teaching of Proportional Reasoning at Scale: Intelligent and Adaptive Professional Development. Paper will be presented at the Association of Mathematics Teacher Educators; February, 2023, New Orleans, LA.
- C11. **Copur-Gencturk, Y**., & Ezaki, J. (2022). Making Sense of Teachers' Knowledge of Students' Fraction Misunderstandings. Paper presented at the National Council of Teachers of Mathematics; September, 2022, Los Angeles, CA.

- C12. **Copur-Gencturk, Y.**, & Atabas, S. (2022). A Professional Development with a Virtual Facilitator on Proportional Reasoning. Paper will be presented at the National Council of Teachers of Mathematics Research Conference; September, 2022, Los Angeles, CA.
- C13. Atabas, S., & **Copur-Gencturk**, **Y**. (2022). A Microgenetic Approach to Novice Teachers' Learning Through Teaching. Paper will be presented at the National Council of Teachers of Mathematics Research Conference; September, 2022, Los Angeles, CA.
- C14. Copur-Gencturk, Y. & Li, J. (2022). A Longitudinal Study of Teachers' Knowledge Growth Through Teaching. Poster to be presented at National Council of Teachers of Mathematics; September, 2022, Los Angeles, CA.
- C15. Orril, C. & **Copur-Gencturk**, Y. (2022). 'Proximal Measures to Assess Learning in Professional Development. Paper to be presented at the National Council of Teachers of Mathematics; September, 2022, Los Angeles, CA.
- C16. Woods, P. J., **Copur-Gencturk, Y.**, & Atabas, S. (2022). Analyzing the Influence of Student Problem Solving Approaches on Learning Through Teaching in Mathematics Education. In Proceedings of the 2022 Annual Meeting of the International Society of the Learning Sciences.
- C17. Ezaki, J., Li, J., & **Copur-Gencturk, Y**. (2022). The Dimensionality of the Multiplicative Conceptual Field. Paper presented at the Association of Mathematics Teacher Educators; February, 2022, Las Vegas, NV
- C18. Ezaki, J., Li, J., & **Copur-Gencturk, Y.** (2022). Assessing the Dimensionality of the Multiplicative Conceptual Field. Paper presented at the American Educational Research Association; April, 2022, San Diego, CA
- C19. Woods. P<sup>\*</sup>., **Copur-Gencturk Y.**, & \* Atabas S. Examining the Effect of Student Problem Solving on Mathematics Teachers' Knowledge Development. (2022). Poster to be presented at the Annual Meeting of the American Educational Research Association.
- C20. Ezaki. J<sup>\*</sup>., Li J<sup>\*</sup>., & **Copur-Gencturk Y.** (2022). The Dimensionality of the Multiplicative Conceptual Field. Paper to be presented at the Annual Meeting of the American Educational Research Association.
- C21. **Copur-Gencturk, Y.,** & Li J<sup>\*</sup>. (2022). Understanding The Development of Pedagogical Content Knowledge Among Novice Mathematics Teachers. Poster presented at the Annual Meeting of the American Educational Research Association.
- C22. Copur-Gencturk Y., Baek C\*. & Doleck. T\* (2021). Empirical Study of Teachers' Proportional Reasoning and Their Performance on Proportional Relationship Problems. Paper presented at the Annual Meeting of the American Educational Research Association, virtual conference.
- C23. **Copur-Gencturk Y.,** Olmez, I.B\*. (2021). Teachers' Understanding of Fractions: A Study on Referent Units. Paper presented at the Annual Meeting of the American Educational Research Association, virtual conference.
- C24. **Copur-Gencturk, Y.,** Thacker, I\*., & Cimpian, J.P. (2021). *Teachers' Implicit Gender Bias and the Moderating Effects of Modern Sexism and Anxiety.* Paper presented at the Annual Meeting of the American Educational Research Association, virtual conference.
- C25. Copur-Gencturk Y. & Rodrigues. J\*. (2021). *Exploring Mathematics Teachers' Content-Specific Noticing with a Large-Scale Survey*. Paper presented at the Annual Meeting of the American Educational Research Association, virtual conference.

- C26. Hong, M., Choi, H.-J., **Copur-Gencturk, Y.**, & Cohen, A.S. (2021). *An application of topic modeling for investigating mathematics teachers' reasoning*. Paper to be presented at the Annual Meeting of the National Council on Measurement in Education, virtual conference.
- C27. **Copur-Gencturk, Y** & Rodrigues, J. (2020). Learning from Teaching: A New Model of Teacher Learning. Brief Research Report published in the Proceedings of the Forty-Second Annual Meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education. Mazatlán, Sinaloa, Mexico.
- C28. Zheng, G., Mardones, C., Choi, H.-J., Hong, M., **Copur-Gencturk, Y**., & Cohen, A.S. (2020). *Mathematical equations and topic modeling: A comparison of two tokenization methods*. Poster accepted for presentation at the annual meeting of the American Educational Research Association, Graduate Student Gala, San Francisco, CA (Meeting cancelled because of Covid 19 pandemic).
- C29. Choi, H.-J., Bolinger, H., Copur-Gencturk, Y., & Cohen, A.S. (2020). Probabilistic topic modeling for identifying students' misconceptions or alternative concepts in mathematics. Paper presented at the International Meeting of the Psychometric Society, College Park, MD, (Meeting virtual because of Covid 19 pandemic.)
- C30. Zheng, G., Mardones, C., Hong, M., **Copur-Gencturk, Y.**, Choi, H.-J., & Cohen, A.S. (2020). *Using latent Dirichlet allocation to analyze mathematics constructed-response data*. Paper presented at the International Meeting of the Psychometric Society, College Park, MD.
- C31. **Copur-Gencturk, Y** & Rodrigues, J. (2020). A Large-Scale Study on Teacher Noticing. Brief Research Report published in the Proceedings of the Forty-Second Annual Meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education. Mazatlán, Sinaloa, Mexico.
- C32. **Copur-Gencturk, Y** & Olmez I.B. (2020). Teachers' Attention to and Flexibility with Referent Units. Research Paper published in the Proceedings of the Forty-Second Annual Meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education. Mazatlán, Sinaloa, Mexico.
- C33. **Copur-Gencturk, Y** & Thacker I. (2020). Differences in Mathematical Ability Beliefs Between Teachers and Mathematicians in Higher Education. Brief Research Report to be published in the Proceedings of the Forty-Second Annual Meeting of the North-American Chapter of the International Group for the Psychology of Mathematics Education. Mazatlán, Sinaloa, Mexico.
- C34. **Copur-Gencturk, Y** & Rodrigues, J. (2020). Teachers cannot improve what they do not see: A large-scale survey of mathematics teachers' noticing. Paper presented at the Association of Mathematics Teacher Educators (AMTE) Annual Meeting.
- C35. Copur-Gencturk, Y., Jacobson E. & Rasiej, R. (2019). On the Alignment of Teachers' Mathematical Content Knowledge Assessments with the Common Core Standards. Paper presented at the American Educational Research Association (AERA) Annual Meeting, Toronto, Canada.
- C36. Copur-Gencturk, Y., Thacker, I., Quinn, D., & Ebby, C.B. (2019). K-8 Mathematics Teachers' Overall and Gender-Specific Beliefs About Mathematical Aptitude. Paper presented at the American Educational Research Association (AERA) Annual Meeting, Toronto, Canada.

- C37. **Copur-Gencturk, Y.,** Cimpian, J.P., Lubienski, S.T., & Thacker, I., & Plowman, D. (2019). What's in a name? A study of mathematics teachers' implicit bias. Paper presented at the American Educational Research Association (AERA) Annual Meeting, Toronto, Canada.
- C38. **Copur-Gencturk, Y**., Thacker, I., & Lubienski T. (2019). What's in a Name? A Study of Mathematics Teachers' Implicit Bias. Paper presented the Research Conference of the National Council of Teachers of Mathematics, California.
- C39. Copur-Gencturk, Y., & Thacker, I (2019). K-8 Mathematics Teachers' Beliefs About Mathematical Aptitude. Paper presented the Research Conference of the National Council of Teachers of Mathematics, California.
- C40. **Copur-Gencturk**, **Y**., Jacobson E. & Rasiej, R. (2019). Content Alignment of Teacher Knowledge Assessments with the Common Core Standards in Mathematics. Paper presented at the Association of Mathematics Teacher Educators (AMTE) Annual Meeting, Orlando.
- C41. **Copur-Gencturk, Y**., Thacker, I., & Junk. D. (2019). Mathematics Teachers' Implicit Biases Toward Female Students and Students of Color. Paper presented at the Association of Mathematics Teacher Educators (AMTE) Annual Meeting, Orlando.
- C42. **Copur-Gencturk, Y.,** Thacker, I., & Plowman, D. (2018). Do Teachers Accurately Report Their Learning? A Comparison of Teacher Reports to Validated Measures. Paper presented at the American Educational Research Association (AERA) Annual Meeting, New York.
- C43. Copur-Gencturk, Y. & Rasiej R. (2018). Do Assessments of Teacher Knowledge Align with Expectations for Students? Paper presented at the Research Conference of the National Council of Teachers of Mathematics, Washington D.C.
- C44. **Copur-Gencturk, Y.,** & Thacker, I. (2018). A Comparison of Self-Reported Teacher Learning to Validated Measures. Paper presented at the Research Conference of the National Council of Teachers of Mathematics, Washington D.C.
- C45. **Copur-Gencturk, Y.** (2017). The Role of Teachers' Content and Pedagogical Content Knowledge in Students' Mathematics Achievement. Paper presented at the American Educational Research Association (AERA) Annual Meeting, San Antonio.
- C46. **Copur-Gencturk, Y.** (2017). Effects of Teachers' Mathematical Knowledge on Student Achievement. Paper presented at the Research Conference of the National Council of Teachers of Mathematics, San Antonio.
- C47. **Copur-Gencturk, Y.** & Junk D. (2016). The Role of Different Learning Opportunities in Teachers' Knowledge Growth. Paper presented at the Research Conference of the National Council of Teachers of Mathematics, San Francisco.
- C48. **Copur-Gencturk, Y.** & Fan, W. (2016). Relationships Among the Categories of Mathematical Knowledge for Teaching. Paper presented at the American Educational Research Association (AERA) Annual Meeting, Washington D.C.
- C49. Junk, D. & **Copur-Gencturk, Y.** (2016). It's complicated: An Examination of High and Low Performing Projects' Professional Development Programming Features. Paper presented at the American Educational Research Association (AERA) Annual Meeting, Washington D.C.
- C50. Copur-Gencturk, Y. & Junk, D. (2015). What Works: Features of Professional Development Activities Associated with Teachers' Mathematical Knowledge Growth. Paper presented at the American Educational Research Association (AERA) Annual Meeting, Chicago.
- C51. Copur-Gencturk, Y. & Junk, D. (2015). What Works: Features of Professional Development Linked to Improvement in Teachers' Mathematical Knowledge. Paper

presented at the Association of Mathematics Teacher Educators (AMTE) Annual Meeting, Orlando.

- C52. Sun, L. & Copur-Gencturk, Y. (2015). The Role of Different Aspects of Mathematical Knowledge in Elementary School Teachers' Instructional Practices. Paper presented at the Association of Mathematics Teacher Educators (AMTE) Annual Meeting, Orlando.
- C53. **Copur-Gencturk, Y.** (2014). A Longitudinal Analysis of the Role of Different Aspects of Teacher Knowledge in Instruction. Paper presented at the American Educational Research Association (AERA) Annual Meeting, Philadelphia.
- C54. **Copur-Gencturk, Y.,** Tang Wee, T., Lubienski, S. T., & Hug, B. (2014). Relationships Among Teachers' Instructional Practices Within Mathematics and Science: An Investigation of Subject-Specific Differences. Paper presented at the American Educational Research Association (AERA) Annual Meeting, Philadelphia.
- C55. **Copur-Gencturk, Y.** (2014). How Various Aspects of Teachers' Mathematical Knowledge Affect Instruction. Paper presented at the Research Conference of the National Council of Teachers of Mathematics, New Orleans.
- C56. **Copur-Gencturk, Y.,** & Papakonstantinou, A. (2014). Assessing the Long-Term Impact of Professional Development on Classroom Practices of High School Math Teachers. Paper presented at the Association of Mathematics Teacher Educators (AMTE) Annual Meeting, Irvine.
- C57. **Copur-Gencturk, Y.,** Papakonstantinou, A., & Parr, L. R. (2013). The Impact of Content-Focused and Sustained Professional Development on Standards-Based High School Mathematics Instruction. Paper presented at the American Educational Research Association (AERA) Annual Meeting, San Francisco.
- C58. **Copur-Gencturk, Y.,** & Papakonstantinou, A. (2013). Classroom Practices of High School Math Teachers: A Longitudinal Analysis. Paper presented at the Research Presession of the National Council of Teachers of Mathematics, Denver.
- C59. **Copur-Gencturk, Y.** (2013). How Do K-8 Teachers Change Their Practices After Learning More Mathematics? Paper presented at the Research Presession of the National Council of Teachers of Mathematics, Denver.
- C60. **Copur-Gencturk, Y.** & Lubienski, S. T. (2012). How do Gains in Teachers' Knowledge Relate to Changes in Instruction? A Three-year Study of Mathematics Knowledge, Beliefs, and Teaching. Paper presented at the American Educational Research Association (AERA) Annual Meeting. Vancouver, British Columbia, Canada.
- C61. **Copur-Gencturk, Y**. & Lubienski, S. T. (2012). What Different Teacher Knowledge Measures Tell Us About Teachers' Mathematical Knowledge for Teaching. Poster presented at the American Educational Research Association (AERA) Annual Meeting. Vancouver, British Columbia, Canada.
- C62. Robinson, J. P., Lubienski, S. T., & Copur-Gencturk, Y. (2012). Gender Biased Perceptions Fuel Early Mathematics Gender Gap. Paper presented at the American Educational Research Association (AERA) Annual Meeting. Vancouver, British Columbia, Canada.
- C63. **Copur-Gencturk, Y.** & Hug, B. (2012). Change in Teachers' Instructional Practices Over Time: The effects of Master's Program on Science Instruction. Paper presented the National Association for Research In Science Teaching (NARST) 2012 Annual International Conference, Indianapolis.

- C64. **Copur-Gencturk, Y.** & Hug, B. (2012). Investigating the Effects of a Master's Program on Teachers' Instruction: Perspectives of External Observers, Teachers, and Students. Paper presented at the Association for Science Teacher Education Conference (ASTE) 2012 International Conference, Florida.
- C65. Lubienski, S. T., & Copur- Gencturk, Y.(2012). A Longitudinal Comparison of Teacher Gains on Two Mathematics Content Knowledge Measures: LMT and DTAMS. Paper presented at the 16<sup>th</sup> Annual Association of Mathematics Teacher Educators (AMTE) Conference, Fort Worth.
- C66. **Copur-Gencturk, Y.**, Hug, B., & Lubienski, S. (2012). Examining Changes in Teachers' Practices in Science. Presentation at the U.S. Department of Education Mathematics and Science Partnerships Program Regional Conference, New Orleans.
- C67. Robinson, J. P., Lubienski, S. T., & **Copur-Gencturk**, Y. (2011). The effects of teachers' gender-stereotypical expectations on the development of the math gender gap. Presentation at the Society for Research on Educational Effectiveness, Washington, DC.
- C68. **Copur-Gencturk, Y.**, & Lubienski, S. T. (2011). Assessing Teachers' Mathematical Knowledge. Paper presented at the Research Presession of the National Council of Teachers of Mathematics, Indianapolis.
- C69. **Copur-Gencturk, Y.**, & Zengin, H., & Hug, B. (2011). Impact of a New Master's Program for K-8 Teachers on Their Knowledge and Practices. Paper presented at the National Association For Research In Science Teaching Annual International Conference, Orlando.
- C70. **Copur-Gencturk, Y.** (2011). The Relationships Among Teachers' Mathematical Knowledge, Teaching, and Student Learning. Poster presented at the Research Presession of the National Council of Teachers of Mathematics, Indianapolis.
- C71. **Copur-Gencturk, Y.** (2011). An Investigation of Teachers' Mathematical Knowledge Through Assessments. Paper presented at the College of Education Graduate Student Conference, Illinois.
- C72. Robinson, J. S., Lubienski, S.T., & **Copur-Gencturk**, **Y**. (2011). Teacher Expectations and the Early Development of Gender Gaps in Math. Paper presented at The Association for Education Finance and Policy, Seattle.
- C73. **Copur-Gencturk, Y.**, Hug, B., & Lubienski, S. (2010). Sense-Making in Mathematics and Science: The design and impact of a new master's program for K-8 teachers. Presentation at the U.S. Department of Education Mathematics and Science Partnerships Program Regional Conference, New Orleans.
- C74. Lubienski, S. T., Hug, B., **Copur-Gencturk, Y.**, Lee, S. (2009). Sense Making in Mathematics and Science: A New Master's Program for K-8 Teachers. Presentation at the MSP Regional Meeting, Chicago.
- C75. Lubienski, S. T. & **Copur-Gencturk**, **Y.** (2009). Equity Research: A Decade in Review. Presentation at the Research Presession of the National Council of Teachers of Mathematics, Washington DC.

### GRANTS

Intelligent, Adaptive Program with Just-in-time Feedback for Preservice Teachers, 2023-2027

National Science Foundation Role: Principal Investigator Co-PIs. Jiliang Tang, Al Cohen, and Shiyu Wang \$1,999,680

**The Role of Knowledgehook in Improving Teaching and Learning Math, 2023-2024** Knowledgehook Role: Principal Investigator \$152,814

# **Usable Measures of Teacher Understanding: Exploring Diagnostic Models and Topic Analysis as Tools for Assessing Proportional Reasoning for Teaching, 2018-2022** National Science Foundation

Role: Principal Investigator Co-PIs. Chandra Orrill, Al Cohen, and Jonathan Templin \$2,168,584

# **CAREER:** Development of Pedagogical Content Knowledge in Mathematics Among Beginning Teachers, 2018-2023

National Science Foundation Role: Principal Investigator \$630,000

# Advancing Middle School Teachers' Understanding of Proportional Reasoning, 2018-2022

Institute of Education Sciences Role: Principal Investigator Co-PIs. Ben Nye, Chandra Orrill, and Al Cohen \$1,461,030

# Immersive Virtual Learning for Worker-Robot Teamwork on Construction Sites, 2018-2021

National Science Foundation Role: Co-Principal Investigator PI: Burcin Becerik-Gerber, Co-PIs: Lucio Soibelman, Gale Lucas \$750,000

### **Elementary School Teachers' Mathematical Proficiency, 2016-2021**

USC Herman & Rasiej Math Initiative Role: Principal Investigator \$136,335

# Identifying the Key Features of Professional Development That Increase Teachers' Mathematical Knowledge, 2013-2014

University of Houston Role: Principal Investigator \$6,000

# **TEACHING EXPERIENCE**

Applications of Curriculum and Pedagogy University of Southern California Teaching Mathematics and Science University of Southern California Teaching Geometry and Algebra Concepts University of Houston

**Developing Proportional Reasoning** University of Houston

**Teaching Mathematics in Grades 4-8** University of Houston

**Developing Algebraic Thinking** University of Houston

**High School Mathematics Teacher** Nene Hatun School, Ankara, Turkey

# SERVICE

# National/InternationalEditorial Panel, Mathematics Teacher Educator2023-presentSection 5 Co-Chair, AERA Division K2022-presentUniversity Service2021-presentCo-PI, Rasiej & Hermann Math Initiative2021-presentPUBLIC ENGAGEMENT & SERVICE2014-2020Collaborator, Texas Regional Collaboratives2014-2020Collaborator, Alliance Schools Professional Development2017Consultant, Joint Educational Project2017

# **PROFESSIONAL ACTIVITIES**

Panelist, National Science Foundation	2014-2023
Manuscript Reviewer, Educational Reviewer	2018- present
Manuscript Reviewer, American Educational Research Journal	2018- present
Manuscript Reviewer, Educational Evaluation and Policy Analysis	2018-2023
Manuscript Reviewer, Review of Educational Research	2018-present
Manuscript Reviewer, AERA Open	2018-2019
Manuscript Reviewer, International Journal of STEM Education	2015-present
Manuscript Reviewer, The Elementary School Journal	2014
Manuscript Reviewer, Educational Studies in Mathematics	2015-present
Manuscript Reviewer, Journal of Teacher Education	2014-present

Manuscript Reviewer, Journal of Mathematics Teacher Education Manuscript Reviewer, Journal for Research in Mathematics Education Manuscript Reviewer, Learning and Individual Differences	2013-present 2010-present 2010-2016
OTHER SCHOLARLY ACTIVITIES	
Measures of Effective Teaching Longitudinal Database Workshop	2014
NSF Conference: Assessment in K-12 Math	2011
High School Longitudinal Study of 2009 Database Training Seminar	2011
Hierarchical Data Analysis, SSI Scientific Software	2010
Learning Mathematics for Teaching 2010 Instrument Dissemination Workshop, University of Michigan	2010

### **MEDIA SPOTS**

December 8, 2023. Featured research by Yahoo! News, <u>AI can teach math teachers how to</u> <u>improve student skills.</u>

December 8, 2023. Featured research by the Conversation, <u>AI can teach math teachers how</u> to improve student skills.

May 2, 2023. Featured research by USA TODAY. <u>Math teachers are biased against girls</u> when they think gender equality has been achieved.

May 2, 2023. Featured research by Yahoo! <u>Math teachers hold a bias against girls when</u> the teachers think gender equality has been achieved.

May 2, 2023. Featured research by the Conversation, <u>Math teachers hold a bias against</u> girls when the teachers think gender equality has been achieved.

November 16, 2022. Featured research by the Conversation, <u>Math teachers in virtual</u> classes tend to view girls and Black students as less capable.

October 13, 2022. Featured research by Education Week. <u>The Surprising Ways Teachers'</u> <u>Biases Play Out in Virtual Classrooms.</u>

July 26, 2021. Featured research by USC Trojan Family, <u>"Girls Can't Do Math": How</u> <u>Unconscious Bias Leads to Gender Gaps in STEM</u>.

March 19, 2021. Featured research by Rossier News, <u>To keep students in math, new</u> project targets teacher PD.

March 31, 2021. Interviewed by JTE Insider.

October 29, 2020. Featured research by USC Viterbi.

May 27, 2020. Featured research by the AAAS and ARISE, <u>Unconscious Bias in the</u> <u>Classroom: How Cultural Stereotypes Affect Teachers' Assessment of Students' Math</u> <u>Abilities.</u>

March 9, 2020. Interviewed by JTE Insider.

February 1, 2020. Interviewed by the CPRE Knowledge Hub, <u>Race, Gender and Implicit</u> <u>Teacher Bias.</u>

January 5, 2020. Interviewed by <u>CBS News Los Angeles affiliate KCAL-TV</u>. Another version of the interview appeared in an <u>additional KCAL newscast</u>.

December 13, 2019. Featured research by Education Week.

December 12, 2019. Featured research by USC News, <u>Teacher bias devalues math skills of</u> girls and students of color, USC research finds.

May 9, 2019. Featured story by Rossier Magazine.

January 24, 2019. Mentioned by NBC News Raleigh affiliate WRAL-TV.

October 5, 2018. Featured research by Rossier News, <u>To improve math education</u>, professor starts with teacher prep.

September 10, 2018. Quoted by The New York Times.

March 23, 2018. Featured research by Rossier News, <u>Major NSF early career award goes</u> to USC Rossier professor.