

**ADEM EKMEKCI**

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**EDUCATION**

- 2013 **Ph.D.** in Mathematics Education, The University of Texas at Austin, Texas, USA  
**Dissertation Title:** *Mathematical Literacy Assessment Design: A Dimensionality Analysis of Programme for International Student Assessment (PISA) Mathematics Framework*  
**Supervised by** *Dr. Guadalupe Carmona-Dominguez*
- 2004 **Integrated B.S. & M.S.** (without thesis) in Secondary Mathematics Teaching, Bogazici University, Istanbul, TURKEY

**EMPLOYMENT HISTORY**

- 2024-current *Director of Research and Operations*  
Rice University School Mathematics Project (RUSMP), Houston, TX
- 2023-current *Clinical Associate Professor of Mathematics*  
Wiess School of Natural Sciences, Rice University, Houston, TX
- 2017-2024 *Director of Research and Evaluation*  
Rice University School Mathematics Project (RUSMP), Houston, TX
- 2017-2023 *Clinical Assistant Professor of Mathematics*  
Wiess School of Natural Sciences, Rice University, Houston, TX
- 2016 Fall *Lecturer*  
Department of Mathematics, Rice University, Houston, TX
- 2016-2017 *Assistant Director of Research and Evaluation*  
Rice University School Mathematics Project (RUSMP), Houston, TX
- 2013-2016 *Postdoctoral Research Associate*  
Rice University School Mathematics Project (RUSMP), Houston, TX
- 2009-2013 *Graduate Research Assistant*  
The UTeach Institute, College of Natural Sciences, The University of Texas at Austin
- 2008-2010 *Assistant Instructor*  
Department of Curriculum & Instruction, The University of Texas at Austin.
- 2008 Fall *Graduate Research Assistant*  
Engineering Education Research Center (EERC), The University of Texas at Austin.
- 2007 Sum *Visiting Instructor*  
Summer school, Department of Secondary Science and Mathematics Education, Bogazici University, Istanbul, TURKEY.
- 2006-2008 *Graduate Teaching Assistant*  
Department of Curriculum & Instruction, The University of Texas at Austin.
- 2003-2005 *Mathematics Teacher*  
TED Istanbul College (K-12), Istanbul, TURKEY (Courses taught: Algebra, Geometry, Analytical Geometry, and AP Calculus).

**COURSES TAUGHT (\*Co-Instructor)**

8. NSCI 477 (Special Topics: Research on STEM Education) – Rice University
7. MATH 112 (Calculus: Integration and Applications) – Rice University
6. MATH 111 (Calculus: Differentiation and Applications) – Rice University
5. MATH 102 (Single Variable Calculus II) – Rice University
4. \*EDC365C (Knowing & Learning in Math and Science) – The University of Texas at Austin
3. EDC370E (Elementary Mathematics Methods) – The University of Texas at Austin
2. \*EDC370E (Elementary Science Methods) – The University of Texas at Austin
1. SCED 408 (Textbook Analysis in Science and Math Education) – Bogazici University

**AWARDED GRANTS**

10. **CRF** (Funder Requested to be Anonymous), **\$94,087**. **Ekmekci, A. (PI)**, & Papakonstantinou, A. (Co-PI). Outcomes of proprietary colleges in comparison to public universities. Rice University School Mathematics Project.
9. **National Science Foundation**, [Robert Noyce Scholarship Grant #2230997](#), **\$4,931,754**, 2022-2025. Rebar, B. (PI), Husman, J., Salomone, S., **Ekmekci, A. (Co-PI)**, & Ross, D. *Western Regional Noyce Network*. University of Oregon, University of Portland, Rice University, & San Diego State University.
8. **National Science Foundation**, [Noyce Track 4 Grant #1950019](#), **\$710,277**, 2020-2023. **Ekmekci, A. (PI)**, & Papakonstantinou, A., Orcan-Ekmekci, B. & Catanese, D. J. *Collaborative Research: Exploring the Impact of Noyce Master Teaching Fellowship Programs on Teacher Retention: The Role of Motivation, Leadership, and School-Work Environment*. Rice University (lead institution on this multi-institutional grant with a total budget of **\$1,389,537**).
7. **National Science Foundation**, [ITEST-EAGER Grant #2041426](#), **\$299,997**, 2020-2022. **Ekmekci, A. (PI)**, Papakonstantinou, A., & Varner, P. *EAGER: Web Adventures Interactive: Innovative Online Activities as Effective Tools for Broadening Participation in Science*. Rice University School Mathematics Project.
6. **National Science Foundation**, [Noyce Track 3 Grant #1556006](#), **\$1,484,025**, 2016-2021. Papakonstantinou, A. (PI), Tapia, R. A., Radigan, J., & **Ekmekci, A. (Co-PI)**. *The Rice University Robert Noyce Master Teaching Fellowship Program (RU-MTF)*. Rice University School Mathematics Project, Glasscock School of Continuing Studies, & Department of Computational and Applied Mathematics.
5. **Longaker Foundation**, **\$40,000**, & **Taub Foundation**, **\$25,000**, 2019-2020. **Ekmekci, A. (PI)**. *Evaluation and Impact Study for the College of Health Care Professionals*. Rice University School Mathematics Project.
4. **Spencer Foundation**, [Grant # 201800021](#), **\$34,805**, 2017-2019. **Ekmekci, A. (PI)**, & Corkin, D. *The Nexus of Teacher Quality and Students' Social Cognitive Career Outcomes in Science, Technology, Engineering, and Mathematics (STEM)*. Rice University & University of Houston-Downtown.
3. **The University of Texas at Austin**, [Grant #18-000333](#), **\$29,992**, 2018-2019.

Parr, R., & **Ekmekci, A. (Co-PI)**. *Rice University School Mathematics Project's Texas Teacher Externship Program*. Rice University School Mathematics Project.

2. **The University of Texas at Austin**, [Grant #3204](#), \$117,932, 2017-2018.

Parr, R., **Ekmekci, A. (Co-PI)**, & Troutman, S. *Rice University School Mathematics Project WeTeach\_CS Collaborative*. Rice University School Mathematics Project.

1. **The University of Texas at Austin**, [Grant #3065](#), \$99,987, 2016-2017.

Parr, R., Fisher A., & **Ekmekci, A. (Co-PI)**. *Rice University School Mathematics Project WeTeach\_CS Collaborative*. Rice University School Mathematics Project.

### GRANT PROPOSALS UNDER REVIEW

**Vilcek Foundation**, \$18,600. Project Support Grant. **Ekmekci, A. (PI)** & Papakonstantinou, A. (Co-PI). University Campus Tours for Immigrant Students Integrating Mathematics and Arts.

### GRANT PROPOSALS IN PREPARATION

**National Science Foundation**. Noyce Track 1. **Ekmekci, A. (PI)**, Rangel, B., Nichol, C., & Papakonstantinou, A. Rice University.

### PEER-REVIEWED PUBLICATIONS

#### JOURNAL ARTICLES

- J15. **Ekmekci, A.**, Aqazade, M., Gibson, D.J., & Rushton, G. (*under review*). Measuring teachers' motivation, beliefs, leadership engagement, and networks: Validation of instruments for teacher education and research. *Professional Development in Education*.
- J14. **Ekmekci, A.**, Aqazade, M., McGraw, R., Rushton, G., Gibson, D., Cerosaletti, C., Daley, M., & Kucuk, B. (2025). Using human, social, structural, and positive psychological capital to explore science and mathematics teacher retention. *International Journal of STEM Education*, 12:14, 1–22. DOI: [10.1186/s40594-024-00523-1](https://doi.org/10.1186/s40594-024-00523-1)
- J13. Aqazade, M., **Ekmekci, A.**, & Papakonstantinou, A. (2024). Developing mathematics teachers into leaders for high-need urban schools. *Journal of Educational Leadership and Policy Studies*, 8(2), 1–24.
- J12. **Ekmekci, A.**, & Serrano, D. M. (2022). The impact of teacher quality on student motivation, achievement, and persistence in science and mathematics. *Education Sciences*, 12(10):649, 1–21. DOI: [10.3390/educsci12100649](https://doi.org/10.3390/educsci12100649)
- J11. White, C., Papakonstantinou, A., **Ekmekci, A.**, & Ward, R. (2021). Lessons learned in 2020 as mathematics professional development for teachers transitioned to remote learning. *Academia Letters* (Article 3614), 1–7. DOI: [10.20935/AL3614](https://doi.org/10.20935/AL3614)
- J10. Serrano Corkin, D., **Ekmekci, A.**, & Fisher, A. (2020). Weaving culture, art, and mathematics to enhance computer science motivation among underrepresented minority students: An intervention. *The Urban Review: Issues and Ideas in Public Education*, 52, 950–969. DOI: [10.1007/s11256-020-00586-8](https://doi.org/10.1007/s11256-020-00586-8)

- J9. **Ekmekci, A.**, Corkin, D., & Fan, W. (2019). A multilevel analysis of the impact of teachers' beliefs and mathematical knowledge for teaching on students' mathematics achievement. *Australian Journal of Teacher Education*, 44(12), 57–80. DOI: [10.14221/ajte.2019v44n12.4](https://doi.org/10.14221/ajte.2019v44n12.4)
- J8. Serrano Corkin, D., Coleman, S., & **Ekmekci, A.** (2019). Navigating the challenges of student-centered mathematics teaching in an urban context. *The Urban Review: Issues and Ideas in Public Education*, 51(3), 370–403. DOI: [10.1007/s11256-018-0485-6](https://doi.org/10.1007/s11256-018-0485-6)
- J7. Corkin, D., **Ekmekci, A.**, & Parr, R. (2018). The effects of the school-work environment on mathematics teachers' motivation for teaching: A self-determination theoretical perspective. *Australian Journal of Teacher Education*, 43(6), 50–66. DOI: [10.14221/ajte.2018v43n6.4](https://doi.org/10.14221/ajte.2018v43n6.4)
- J6. **Ekmekci, A.**, Sahin, A., Gulacar, O., & Almus, K. (2018). High school students' semantic networks of scientific method in an international science Olympiad context. *Eurasia Journal of Mathematics, Science & Technology Education*, 1–20. DOI: [10.29333/ejmste/93677](https://doi.org/10.29333/ejmste/93677)
- J5. Sahin, A., **Ekmekci, A.**, & Waxman, H. (2017). Characteristics of students who majored in STEM fields. *International Journal of Science Education*, 39(11), 1549–1572. DOI: [10.1080/09500693.2017.1341067](https://doi.org/10.1080/09500693.2017.1341067)
- J4. Sahin, A., **Ekmekci, A.**, & Waxman, H. (2017). Collective effects of individual, behavioral, and contextual factors on high school students' future STEM career plans. *International Journal of Science and Mathematics Education*, 1–21. DOI: [10.1007/s10763-017-9847-x](https://doi.org/10.1007/s10763-017-9847-x)
- J3. Corkin, D., **Ekmekci, A.**, & Papakonstantinou, A. (2015). Antecedents of teachers' educational beliefs about mathematics and mathematical knowledge for teaching among in-service teachers in high poverty urban schools. *Australian Journal of Teacher Education*, 40(9), 31–62. DOI: [10.14221/ajte.2015v40n9.3](https://doi.org/10.14221/ajte.2015v40n9.3)
- J2. **Ekmekci, A.**, & Gulacar, O. (2015). A case study for comparing the effectiveness of a computer simulation and a hands-on activity on learning electric circuits. *Eurasia Journal of Mathematics, Science & Technology Education*, 11(4), 765–775.
- J1. **Ekmekci, A.** (2013). Models and modeling in mathematics education: Making learners' mathematical thinking, knowledge and skills visible. *Mediterranean Journal for Research in Mathematics Education*, 12(1-2), 57–76. Available at <https://www.cymsjournal.com/wp-content/uploads/2020/11/MJRME2013.pdf>

## BOOK CHAPTERS & SECTIONS

- B4. **Ekmekci, A.**, Aqazade, M., & Papakonstantinou, A. (2024). Research highlights about predicting TPACK and impact of professional development for K-12 mathematics teachers. In M. N. Ochoa, D. Gibson, & Y. Jin (Eds.), *Research highlights in technology and teacher education 2023*, (pp. 99–105). Association for the Advancement of Computing in Education (AACE). <https://www.learntechlib.org/p/223858>.
- B3. **Ekmekci, A.**, Papakonstantinou, A., Parr, R., & Shah, M. (2019). Teachers' knowledge, beliefs, and perceptions about mathematics teaching: How do they relate to TPACK? In M. L. Niess, H. Gillow-Wiles, & C. Angeli (Eds.), *Handbook of research on TPACK in the digital age*, (pp. 1–23). Hershey, PA: IGI Global. DOI: [10.4018/978-1-5225-7001-1](https://doi.org/10.4018/978-1-5225-7001-1)
- B2. **Ekmekci, A.**, Sahin, A., & Waxman, H. (2019). Factors affecting students' STEM choice and persistence: A synthesis of research and findings from the second year of a longitudinal

high school STEM tracking study. In A. Sahin & M. Mohr-Schroeder (Eds.), *STEM Education 2.0: Myths and Truths: What has years of K-12 STEM education research taught us?* (pp. 279–304). The Netherlands: Brill. DOI: [10.1163/9789004405400\\_015](https://doi.org/10.1163/9789004405400_015)

- B1. Aslan-Tutak, F., & **Ekmekci, A.** (2009). Challenges and suggestions for cross-cultural mentors. In Zimmermann, G (Ed.), *Empowering the Mentor of the Mathematics Teacher - Book Series* (pp. 67-68). Reston, VA: National Council of Teachers of Mathematics.

## CONFERENCE PROCEEDINGS

- C22. Kucuk, B., Aqazade, M., & **Ekmekci, A.** (2025). STEM teachers' experiences with different modalities of workshops. In R. Jake Cohen (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 2801-2809). Orlando, FL, USA: Association for the Advancement of Computing in Education (AACE). <https://www.learntechlib.org/primary/p/225874/>
- C21. Aqazade, M., & **Ekmekci, A.** (2023). Voices from the field: Teachers' perceptions of who teacher leaders are and what they do. In P. Blikstein, J. Van Aalst, R. Kizito, & K. Brennan (Eds.), *Proceedings for the 17<sup>th</sup> International Conference of the Learning Sciences* (pp. 1799–1800). Montreal, QC: Concordia University & Dawson College; International Society of the Learning Sciences. <https://doi.org/10.22318/icls2023.450699>
- C20. **Ekmekci, A.**, Aqazade, M., & McGraw, R. (2023). Science and mathematics teacher retention: A collective analysis and comparison between Master Teachers and other teachers. In P. Blikstein, J. Van Aalst, R. Kizito, & K. Brennan (Eds.), *Proceedings for the 17<sup>th</sup> International Conference of the Learning Sciences* (pp. 1801–1802). Montreal, QC: Concordia University & Dawson College; International Society of the Learning Sciences. <https://doi.org/10.22318/icls2023.158076>
- C19. **Ekmekci, A.**, Aqazade, M., & Papakonstantinou, A. (2023). How do teachers' motivational beliefs and sense of preparedness to teach mathematics relate to their TPACK? In E. Langran (Ed.), *Proceedings of 2023 Society for Information Technology & Teacher Education International Conference* (pp. 2443–2449). New Orleans, LA: Association for the Advancement of Computing in Education. <https://learntechlib.org/primary/p/222142/>
- C18. Aqazade, M., **Ekmekci, A.**, & Papakonstantinou, A. (2022). Master teaching fellows' perceptions of teacher leadership. In A. E. Lischka, E. B. Dyer, R. S. Jones, J. N. Lovett, J. Strayer, & S. Drown, S. (Eds.), *Proceedings of the 44<sup>th</sup> Conference of the North American Chapter of the Psychology of Mathematics Education* (pp. 958–962). Nashville, TN: Middle Tennessee State University.
- C17. **Ekmekci, A.**, Aqazade, M., Callard, C., Gibson, D., Rushton, G., & McGraw, R. (2022). The role of self-efficacy, leadership, school-work environment, diversity beliefs, and social network in teacher retention. In A. E. Lischka, E. B. Dyer, R. S. Jones, J. N. Lovett, J. Strayer, & S. Drown, S. (Eds.), *Proceedings of the 44<sup>th</sup> Conference of the North American Chapter of the Psychology of Mathematics Education* (pp. 1004–1005). Nashville, TN: Middle Tennessee State University.
- C16. **Ekmekci, A.**, Aqazade, M., & Papakonstantinou, A. (2022). Development of teacher leaders in high-need urban schools. In A. E. Lischka, E. B. Dyer, R. S. Jones, J. N. Lovett, J. Strayer, & S. Drown, S. (Eds.), *Proceedings of the 44<sup>th</sup> Conference of the North American Chapter of the*

- [\*Psychology of Mathematics Education\*](#) (pp. 1002–1003). Nashville, TN: Middle Tennessee State University.
- C15. **Ekmekci, A.**, Aqazade, M., Papakonstantinou, A., Orcan-Ekmekci, B., Catanese, J., Callard, C., Cerosaletti, C., Daley, M., Rushton, G., Reid, J., Gibson, D., Renzaglia, K., McGraw, R., Sheppard, P., Head, M., Harel, G. & Soto, O. (2022). The associations of social and motivational factors to science and mathematics teacher retention. In E. Langran (Ed.), *Proceedings of 2022 Society for Information Technology & Teacher Education International Conference* (pp. 914–920). San Diego, CA: Association for the Advancement of Computing in Education. Available at <https://learntechlib.org/pv/220830/>
- C14. **Ekmekci, A.**, Papakonstantinou, A., Varner, P. & Aqazade, M. (2022). Teachers' use of educational technology and Web Adventures: Innovative interactive digital media for learning science. In E. Langran (Ed.), *Proceedings of 2022 Society for Information Technology & Teacher Education International Conference* (pp. 502–507). San Diego, CA: Association for the Advancement of Computing in Education. Available at <https://learntechlib.org/pv/220769/>
- C13. **Ekmekci, A.**, & Papakonstantinou, A. (2020). Being research-based and research-minded in helping K-12 mathematics education. In B. Acu, D. Danielli, M. Lewicka, A. Pati, S. RV, & M. Teboh-Ewungkem (Eds.), *Advances in Mathematical Sciences, Association for Women in Mathematics Series, 21*, 351–360. Springer. DOI: [10.1007/978-3-030-42687-3\\_23](https://doi.org/10.1007/978-3-030-42687-3_23)
- C12. Papakonstantinou, A., & **Ekmekci, A.** (2020). The Rice University School Mathematics Project: Supporting excellence in K-16 mathematics since 1987. In B. Acu, D. Danielli, M. Lewicka, A. Pati, S. RV, & M. Teboh-Ewungkem (Eds.), *Advances in Mathematical Sciences, Association for Women in Mathematics Series, 21*, 361–369. Springer. DOI: [10.1007/978-3-030-42687-3\\_24](https://doi.org/10.1007/978-3-030-42687-3_24)
- C11. Corkin, D., & **Ekmekci, A.** (2019). The impact of mathematics teachers on student learning and motivation. In A. Redmond-Sanogo & J. Cribbs (Eds.), *Proceedings of the 46th Annual Meeting of the Research Council on Mathematics Learning*, (pp. 34–41). Charlotte, NC: Research Council on Mathematics Learning.
- C10. **Ekmekci, A.**, & Corkin, D. (2019). The influence of science teachers on high school students' science motivation: An analysis using a nationally representative large-scale data set. In K. Graziano (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference (ISBN 978-1-939797-37-7)*, (pp. 2267-2272). Las Vegas, NV: Association for the Advancement of Computing in Education. Available at <https://www.learntechlib.org/primary/p/207964/>
- C9. **Ekmekci, A.**, Parr, R., & Fisher, A. (2018). Results from Rice University WeTeach\_CS: A computer science teaching collaborative serving teachers with different needs through variety of pathways. In E. Langran & J. Borup (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference (ISBN 978-1-939797-32-2)*, (pp. 2025-2030). Washington, DC: Association for the Advancement of Computing in Education. Available at <https://www.learntechlib.org/primary/p/182806/>
- C8. Corkin, D., **Ekmekci, A.**, & Coleman, S. L. (2017). Barriers to implementation of constructivist teaching in a high-poverty urban school district. In T. A. Olson & L. Venenciano (Eds.), *Proceedings of the 44th Annual Meeting of the Research Council on Mathematics Learning*, (pp. 57–64). Fort Worth, TX.

- C7. Corkin, D., **Ekmekeci, A.**, White, C., & Fisher, A. (2016). Teachers' self-efficacy and knowledge for the integration of technology in mathematics instruction at urban schools. In K. V. Adolphson & T. M. Olson (Eds.), *Proceedings of the 43rd Annual Meeting of the Research Council on Mathematics Learning*, (pp. 101-108). Orlando, FL.
- C6. **Ekmekeci, A.**, Corkin, D., & Papakonstantinou, A. (2015). The collective effects of teachers' educational beliefs and mathematical knowledge on students' mathematics achievement. In T. G. Bartell, K. N. Bieda, R. T. Putnam, K. Bradfield, & H. Dominguez, (Eds.), *Proceedings of the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, (pp. 884-887). East Lansing, MI: Michigan State University.
- C5. **Ekmekeci, A.**, Corkin, D., & Papakonstantinou, A. (2015). The relationship between teacher related factors and mathematics teachers' educational beliefs about mathematics. In S. M. Che, & K. A. Adolphson (Eds.), *Proceedings of the 42nd Annual Meeting of the Research Council on Mathematics Learning*, (pp. 140-148). Las Vegas, NV.
- C4. **Ekmekeci, A.**, & Carmona, G. (2014). Studying mathematical literacy through the lens of PISA's assessment framework. In C. Nicol, P. Liljedahl, S. Oesterle, & D. Allan (Eds.), *Proceedings of the 38<sup>th</sup> Conference of the International Group for the Psychology of Mathematics Education (PME) and the 36<sup>th</sup> Conference of the North American Chapter of the PME - Vol. 2* (pp. 441-448). Vancouver, Canada: PME.
- C3. Papakonstantinou, A., **Ekmekeci, A.**, & Parr, R., (2014). Mathematics teacher leadership: A sustainable approach to improve mathematics education. In S. Oesterle, C. Nicol, P. Liljedahl, & D. Allan (Eds.), *Proceedings of the 38<sup>th</sup> Conference of the International Group for the Psychology of Mathematics Education (PME) and the 36<sup>th</sup> Conference of the North American Chapter of the PME - Vol. 6* (p. 379). Vancouver, Canada: PME.
- C2. **Ekmekeci, A.**, & Carmona, G. (2012). Mathematical literacy assessment design: A multivariate analysis of PISA 2003 mathematics items in the U.S. In L. R. Van Zoest, J.-J. Lo, & J. L. Kratky (Eds.), *Proceedings of the 34th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, (p. 390). Kalamazoo, MI: Western Michigan University.
- C1. **Ekmekeci, A.**, & Dominguez, A. (2007) College Level Students' Reasoning of an Optimization Problem: Historic Hotel MEA (Model-Eliciting Activity). In T. Lamberg, & L. R. Wiest (Eds.), *Proceedings of the 29th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 133-134). Stateline (Lake Tahoe), NV: University of Nevada, Reno.

#### PAPERS IN PREPARATION

- Ekmekeci, A.**, Aqazade, M., Kucuk, B., Carr, K., Niedermeyer, W. J., & Rebar, B. *Affordances of different workshop modalities for STEM teachers.*
- Kucuk, B., Cai, A., Ekmekeci, O., & **Ekmekeci, A.** *A systematic literature review on STEM motivation among URM high school and college students.*

## CONFERENCE PAPERS

26. **Ekmekeci, A.**, Aqazade, M., McGraw, R., & Kucuk, B. (2025, April). *Science and mathematics teacher retention and leadership: A collective analysis and comparison between master teachers and other teachers*. The 2025 Annual Meeting of the American Educational Research Association. Denver, CO.
25. **Ekmekeci, A.**, Aqazade, M., Porter, J., Salomone, S., & Kucuk, B. (2025, April). *The impact of regional conferences on teaching networks for pre-service and in-service STEM teachers*. The 2025 Annual Meeting of the American Educational Research Association. Denver, CO.
24. Aqazade, M., & **Ekmekeci, A.** (2024, April). *How do mathematics teachers describe teacher leadership and teacher leaders' responsibilities?* The 2024 Annual Meeting of the American Educational Research Association. Philadelphia, PA.
23. Aqazade, M., **Ekmekeci, A.**, & Papakonstantinou, A. (2024, April). *Mathematics teacher leadership development in high-need urban schools*. The 2024 Annual Meeting of the American Educational Research Association. Philadelphia, PA.
22. **Ekmekeci, A.**, Aqazade, M., Gibson, D. J., & Rushton, G. (2024, April). *Instruments for professional development and program evaluation measuring teachers' motivational and behavioral traits*. The 2024 Annual Meeting of the American Educational Research Association. Philadelphia, PA.
21. **Ekmekeci, A.**, Gibson, D., Renzaglia, K., Callard, C., McGraw, R., Rushton, G., Sheppard, P., Harel, G., & Aqazade, M. (2023, October). *Comparison between Master Teaching Fellows (MTFs) and non-MTFs: STEM teacher retention and related factors*. 2023 Midwest Noyce Regional Conference, St. Louis, MO.
20. **Ekmekeci, A.**, Boddie Wright, K., Keese, J., & Waxman, H. (2023, April). *The impact of professional development-focused STEM program on elementary student achievement: A randomized control trial*. Paper presented at the 2023 Annual Meeting of the American Educational Research Association. Chicago, IL.
19. **Ekmekeci, A.**, & Corkin D. (2019, April). *The role of high school students' motivation and course-taking on their STEM career plans*. Paper presented at the 2019 Annual Meeting of the American Educational Research Association. Toronto, Canada.
18. **Ekmekeci, A.**, & Sahin, A. (2019, April). *A longitudinal study on high school students' STEM college-major intentions: Results from the third year*. Paper presented at the 2019 Annual Meeting of the American Educational Research Association. Toronto, Canada.
17. Sahin, A., & **Ekmekeci, A.** (2019, April). *Developing a self-reported measure for high school students' 21st century skills*. Paper presented at the 2019 Annual Meeting of the American Educational Research Association. Toronto, Canada.
16. Corkin, D., Coleman, S., & **Ekmekeci, A.** (2018, April). *Self-regulatory teaching strategies and motivation among mathematics teachers working in high-poverty urban schools*. Paper presented at the 2018 Annual Meeting of the American Educational Research Association. New York, NY.
15. **Ekmekeci, A.**, & Sahin, A. (2018, April). *The development and validation of a 21st century skills instrument: Measuring secondary school students' skills*. Paper presented at the 2018 Annual Meeting of the American Educational Research Association. New York, NY.

14. Sahin, A., **Ekmekci, A.**, & Waxman, H. (2018, April). *A longitudinal study of factors impacting high school students' STEM-majoring intentions*. Paper presented at the 2018 Annual Meeting of the American Educational Research Association. New York, NY.
13. Sahin, A., **Ekmekci, A.**, & Waxman, H. (2018, March). *A social cognitive career lens onto 10th grade students' STEM college major plans*. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST). Atlanta, GA.
12. Corkin, D., **Ekmekci, A.**, & Fisher, A. (2017, April). *The effects of a culturally relevant intervention on computer science motivation among underrepresented minority students in high school geometry*. Paper presented at the 2017 Annual Meeting of the American Educational Research Association. San Antonio, TX.
11. Sahin, A., **Ekmekci, A.**, & Waxman, H. (2017, April). *Investigating high school students' individual, environment, and Pygmalion effects variables on college major selection*. Paper presented at the 2017 Annual Meeting of the American Educational Research Association. San Antonio, TX.
10. Corkin, D., **Ekmekci, A.**, & Papakonstantinou, A. (2016, April). *Mathematics teachers' motivational beliefs: The effects of the school-work environment*. Paper presented at the 2016 Annual Meeting of the American Educational Research Association. Washington, DC.
9. **Ekmekci, A.**, & Cavlazoglu, B. (2016, April). *Student persistence in science: Do science teacher credentials matter?* Paper presented at the 2016 Annual International Conference for National Association of Research in Science Teaching. Baltimore, MD.
8. Sahin, A., **Ekmekci, A.**, Almus, K., & Gulacar, O. (2016, April). *High school students' understanding of the scientific method: Does participation in science project Olympiads matter?* Paper presented at the 2016 Annual Meeting of the American Educational Research Association. Washington, DC.
7. **Ekmekci, A.** (2015, April). *Are we measuring it accurately: mathematical literacy in the PISA context?* Paper presented at the 2015 Annual Meeting of the American Educational Research Association. Chicago, IL.
6. **Ekmekci, A.**, Corkin, D., & Papakonstantinou, A. (2015, April). *Technology using habits of mathematics teachers*. Paper presented at the 2015 Annual Meeting of the American Educational Research Association. Chicago, IL.
5. **Ekmekci, A.**, & Ayar, M. C. (2012, September). *Fen bilimleri ogretiminde ogrenci merkezli deneySEL ve bilgisayar destekli etkinliklerin karsilastirilmesi [Student-centered teaching of science concepts: Affordances of experimental and computer-supported learning environments]*. Paper presented at the 21. Ulusal Egitim Bilimleri Kongresi. Marmara Univ., Istanbul, Turkey.
4. Carmona, G., Krause, G., Monroy, M., Lima, C., Ávila, A., & **Ekmekci, A.** (2011, April). *A longitudinal study to investigate changes in students' mathematics scores in Texas*. Paper presented at the 2011 Annual Meeting of the American Educational Research Association, New Orleans, LA.
3. Dominguez, A., Carmona, G., & **Ekmekci, A.** (2011, August). *Pre-service teachers work on electric circuits concepts: computer simulations vs. real equipment*. Paper presented at International Conference on Physics Education 2011 Mexico: "Training Physics Teachers and Academic Networks", Mexico City, Mexico.

2. **Ekmekeci, A.**, & Yildirim, Y. (2009, February). *Effect of doing a science fair project on students' perception of science*. Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.
1. Dominguez, A., & **Ekmekeci, A.** (2007, July). *Pre-service teachers work on electric circuits concepts: hands-on and computer-based approach*. Paper presented at 2007 American Association of Physics Teachers Summer Meeting, Greensboro, NC.

## PRESENTATIONS

<i>In addition to the presentations for conference proceedings &amp; conference papers listed above.</i>
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31. Orcan-Ekmekeci, B., & **Ekmekeci, A.** (2025, March). *The art of mathematics: A college-level course for non-STEM majors*. Study presented at the 52nd Annual Conference of the Research Council on Mathematics Learning. College Station, Texas.
30. Buxner, S., & **Ekmekeci, A.** (2025, February). *Community discussion about Noyce research for Tracks 1, 2, 3, and 4*. 2025 Western Noyce Regional Conference, San Diego, CA.
29. **Ekmekeci, A.**, Husman, J., & Graham, M. (2025, February). *Research findings from the Western Regional Noyce Network and Teacher Innovation Project*. Paper presented at 2025 Western Noyce Regional Conference, San Diego, CA.
28. Renzaglia, K., McGraw, R., Sheppard, P., Gibson, D., & **Ekmekeci, A.** (2024, October). *How Noyce professional development influenced MTFs who transitioned from the classroom to leadership positions*. Poster presented at the 2024 Midwest Noyce Regional Conference, St. Louis, MO. October 18-20, 2024.
27. **Ekmekeci, A.**, Aqazade, M., Rushton, G., Gibson, D., McGraw, R., Cerosaletti, C., & Daley, M. (2024, September). *Measuring teachers' motivation, beliefs, leadership engagement, and networks: Instrument validation and exploring teacher retention*. Poster presented at the Society for Research on Educational Effectiveness 2024 Conference, Baltimore, MD.
26. **Ekmekeci, A.**, Aqazade, M., McGraw, R., Renzaglia, K., Rushton, G., Daley, M., Cerosaletti, C., & Callard, C. (2024, July). *Results from a Track 4 research project on teacher retention and related four capitals*. The 2024 Noyce Annual Noyce Summit, Washington, D.C. July 15-17, 2024.
25. **Ekmekeci, A.**, Daley, M., Ferguson, S., Green, A., Hunter, W., Husman, J., McCorrison, K., Ross, D., & Callard, C. (2024, July). *What do four regional noyce networks have to offer? What can we learn from each other?* The 2024 Noyce Annual Noyce Summit, Washington, D.C. July 15-17, 2024.
24. **Ekmekeci, A.**, Porter, J., Salomone, S., & Aqazade, M. (2024, July). *The impact of regional conferences on STEM teachers' social networks*. Poster presented at the 2024 Noyce Annual Noyce Summit, Washington, D.C. July 15-17, 2024.
23. Renzaglia, K., McGraw, R., Sheppard, P., & **Ekmekeci, A.** (2024, July). *How the Noyce experience influenced MTFs who shifted to leadership positions*. Poster presented at the 2024 Noyce Annual Noyce Summit, Washington, D.C. July 15-17, 2024.
22. Buxner, S., **Ekmekeci, A.**, & Porter, J. (2024, February). *Community discussion about designing and publishing results from our Noyce Track 1, 2, and 3 Projects*. Western Regional Noyce Network 2024 Conference, Portland, OR.

21. Rebar, B., Ross, D., Salomone, S., **Ekmekci, A.**, Porter, J., & Buxner, S. (2024, February). *Western Regional Noyce Network: A community conversation for project leaders*. Western Regional Noyce Network 2024 Conference, Portland, OR.
20. Aqazade, M., Daley, M., **Ekmekci, A.**, Callard, C., Gibson, D., Renzaglia, K., McGraw, R., Rushton, G., Sheppard, P., & Harel, G. (2023, June). *Science and mathematics teacher retention: A collective analysis and comparison between master teachers and other teachers*. Poster presented at the 2023 Noyce Annual Noyce Summit, Washington, D.C.
19. **Ekmekci, A.**, Reid, J., Aqazade, M., Rushton, G., Cerosaletti, C., & Reeder, A. (2023, March). *Differences in teaching and leadership network characteristics between Master Teaching Fellows (MTFs) and non-MTFs*. Paper presented at 2023 Western Noyce Regional Conference, Sacramento, CA.
18. Rebar, B., Ross, D., Salomone, S., Porter, **Ekmekci, A.**, & Buxner, S. (2023, March). *Western Regional Noyce Network: Our vision for a community supporting STEM teacher recruitment, retention, and success in high-need schools*. Western Regional Noyce Network 2023 Conference, Sacramento, CA.
17. **Ekmekci, A.**, Callard, C., Daley, M., McGraw R., Gibson, D., Renzaglia, K., & Rushton, G. (2022, July). *How do self-efficacy, leadership, teacher-school fit, and diversity dispositions relate to retention?* Poster presented at the 2022 Annual Noyce Summit, Washington, D.C.
16. **Ekmekci, A.**, Aqazade, M., Catanese, D., & Soto, O. (2022, March). *Factors impacting science and mathematics teacher retention*. Paper presented at 2022 Western Noyce Regional Conference, San Diego, CA.
15. **Ekmekci, A.**, Aqazade, M., Callard, C., Gibson, D., Rushton, G., McGraw, R., Catanese, D., Cerosaletti, C., Daley, M., Harel, G., Head, M., Orcan-Ekmekci, B., Papakonstantinou, A., Reid, J., Renzaglia, K., Sheppard, P., & Soto, O. (2022, February). *Teacher retention: The role of self-efficacy, leadership, and network*. Poster presented at 2022 Midwest Noyce Regional Conference, Cave City, KY.
14. **Ekmekci, A.**, Aqazade, M., McMorris, P., & Jaster, S. (2022, February). [The Rice University Master Teaching Fellowship Program Results: Development of Teacher Leaders High-Need Urban Schools](#). Poster presented at 2022 Midwest Noyce Regional Conference, Cave City, KY.
13. **Ekmekci, A.**, Papakonstantinou, A., & Varner, P. (2021, September). *Web Adventures Interactive: Innovative online games as effective tools for broadening participation in science*. 2021 Annual NSF ITEST PI meeting (virtual). <https://vimeo.com/592932018>
12. Papakonstantinou, A., **Ekmekci, A.**, Tapia, R., & Radigan, J. (2020, August). [The Rice University Robert Noyce Master Teaching Fellowship Program \(RU-MTF\)](#). 2020 Virtual Noyce Summit: Centering equity to humanize the process of coming back together.
11. **Ekmekci, A.**, McMorris, P., Parr, R., & Papakonstantinou, A. (2019, July). *Developing mathematics teacher leaders to meet the needs of urban schools – Lessons from the Rice University Robert Noyce Master Teaching Fellowship Program*. Poster presented at 2019 Noyce Summit, Washington, DC.
10. **Ekmekci, A.**, Papakonstantinou, A., & Parr, R. (2019, July). *The Rice University Master Teaching Fellowship Program midpoint results: Progress in development of teacher leaders in high-need urban schools*. Poster presented at 2019 Noyce Summit, Washington, DC.

9. **Ekmekci, A.** (2019, April). *Being research-based and research-minded in helping K-12 mathematics education*. In session: *Education partnerships: University mathematics faculty and K-12 mathematics teachers*, 2019 Association for Women in Mathematics Research Symposium, Houston, TX.
8. **Ekmekci, A.**, Papakonstantinou, A., & Parr, R. (2018, July). [\*The Rice University Noyce Master Teaching Fellowship Program \(DUE # 1556006\): Evaluation update for year 1 and year 2\*](#). Poster presented at 2018 Noyce Summit, Washington, DC.
7. **Ekmekci, A.**, Sheppard, P., Papakonstantinou, A., & Parr, R. (2018, July). [\*Lessons learned from a unique collaboration opportunity between two Noyce programs at two different universities \(Rice-ULL\)\*](#). 2018 Noyce Summit, Washington, DC.
6. **Ekmekci, A.**, Sheppard, P., Papakonstantinou, A., & Parr, R. (2018, July). [\*Noyce teacher noticing when observing other Noyce and non-Noyce teachers\*](#). Poster presented at 2018 Noyce Summit, Washington, DC.
5. Sahin, A., **Ekmekci, A.**, & Waxman, H. (2017, February). *Effects of school, out of school, and Pygmalion effect variables on students' STEM career selection*. The 10<sup>th</sup> Annual Texas STEM Conference. Addison, TX.
4. **Ekmekci, A.**, & Corkin, D. (2016, April). *The relation between teacher-related factors and student mathematics achievement*. The Spring School at the University of Wurzburg: Perspectives on Research in Mathematics Education in the Next Decade. Bavaria, Germany.
3. **Ekmekci, A.** (2011, May). *Model-Eliciting Activities: A Hands-on Demonstration of Generative Activities for Educators of New Generation of Science and Mathematics Teachers*. Hands-on Workshop Session. The 5<sup>th</sup> Annual UTeach Institute-NMSI Conference. Austin, TX, USA.
2. Fortney, B., Costello, C., & **Ekmekci, A.** (2010, May). *Technology-Based Step Demonstration Lesson Using the TI-Navigator System*. Hands-on Workshop Session. 4<sup>th</sup> Annual UTeach Institute-NMSI Conference. Austin, TX, USA.
1. Carmona, G., & **Ekmekci, A.** (2007). *Mathematical Modeling and Assessment*. Learning Environments of the Future: A Collaboration with the Learning Sciences. Laboratory of Singapore, Singapore.

#### INVITED TALKS

9. **Ekmekci, A.**, & McCoy, A. (2021, October). *Research and evaluation results from Rice University Master Teacher Fellowship program*. NSF Robert Noyce Lessons Learned Conference (DUE 1556006) in conjunction with RUSMP 2021 Virtual Fall Networking Conference, Houston, TX.
8. **Ekmekci, A.** (2020, February). [\*Critical issues in STEM education: Research on effective STEM teachers and teaching\*](#). RUSMP 2020 Spring Networking Conference (Keynote Talk), Houston, TX.
7. **Ekmekci, A.**, Burrus, C., Hamilton, G., & Wu, L. (2018, June). *Discussion about effective teaching: Noyce Lafayette visit at Rice*. Summer 2 program for Rice University Robert Noyce Master Teaching Fellowship program. Houston, TX.
6. **Ekmekci, A.** (2018, June). *Evaluation update: Years 1 and 2*. Summer 2 program for Rice University Robert Noyce Master Teaching Fellowship program. Houston, TX.

5. Corkin, D. M., & **Ekmekci, A.** (2016, March). *RUSMP's research and evaluation of the Summer Campus Program*. Teacher Quality Grants: Project Directors' Meeting, Texas Higher Education Coordinating Board. Fort Worth, TX, USA.
4. **Ekmekci, A.** (2015, September). *Basics of Qualtrics: An Online Data Collection & Analysis Tool*. Guest Speaker, PSYC 340: Research Methods (Instructor: Dr. Danya Corkin), Rice University, Houston, TX, USA.
3. **Ekmekci, A.** (2015, April). *Mathematical Literacy Assessment Design: A Dimensionality Analysis of Programme for International Student Assessment Mathematics Framework*. (Honorable mention dissertation award presentation). Advanced Studies of National Databases SIG, Annual Meeting of the American Educational Research Association. Chicago, IL, USA.
2. **Ekmekci, A.** (2010, November). *Model-Eliciting Activities: The Team Ranking Problem*. UTeach Institute Knowing & Learning in Math & Science Course Workshop, The University of Texas at Austin. Austin, TX, USA.
1. Carmona, G., & **Ekmekci, A.** (2008, August). *Models and Modeling in Science and Mathematics Classroom*. Annual HSA-Austin Teacher Training Workshop, Engineering Education Research Center, The University of Texas at Austin. Austin, TX, USA.

#### REPORTS

19. **Ekmekci, A.**, Papakonstantinou, A., & Kucuk, B. (2024, August). *2024 Tapia CALC-Squared evaluation report* (RUSMP DN: 24-01). Houston, TX, Rice University School Mathematics Project.
18. **Ekmekci, A.**, Rollins, K., Zhao, X., & Waxman, H. (2024, June). *An Evaluation of the Launching Elementary Academic Foundations (LEAF) to STEM Program*. College Station, TX: The Texas A&M University Education Research Center.
17. **Ekmekci, A.**, Cai, A., & Ekmekci, O. H. (2023, September). [\*Evaluation report for RUSMP 2023 Summer Campus Program for teachers\*](#) (RUSMP DN: 23-02). Houston, TX, Rice University. Available at <https://rusmp.rice.edu/research/papers>
16. **Ekmekci, A.**, & Papakonstantinou, A. (2023, August). [\*Tapia Camp Calculus Course Evaluation Report\*](#) (RUSMP DN: 23-01). Houston, TX, Rice University School Mathematics Project. Available at <https://rusmp.rice.edu/research/papers>
15. **Ekmekci, A.**, & Aqazade, M. (2022, September). [\*Evaluation report for RUSMP 2022 Summer Campus Program for teachers \(Virtual\)\*](#) (RUSMP DN: 22-02). Houston, TX, Rice University. Available at <https://rusmp.rice.edu/research/papers>
14. Wright, K. B., **Ekmekci, A.**, Waxman, H., Keese, J., Stillisano, J., Banarjee, M., McIntush, K., Rollins, K., & Brown, D. (2022, September). *Year 4 Evaluation of the Launching Elementary Academic Foundations (LEAF) to STEM Program*. College Station, TX: The Texas A&M University Education Research Center.
13. Aqazade, M., & **Ekmekci, A.** (2022, May). [\*Evaluation report for RUSMP 2021 Summer Campus Program for teachers \(Virtual\)\*](#) (RUSMP DN: 22-01). Houston, TX, Rice University. Available at <https://rusmp.rice.edu/research/papers>

12. **Ekmekci, A.**, & Odemis, A. (2021, August). [\*The College of Health Care Professions: Impact Study on Hispanic Students\*](#) (RUSMP DN: 21-01). Houston, TX: School Mathematics Project (RUSMP), Rice University. Available at <https://rusmp.rice.edu/research/papers>
11. Wright, K. B., Waxman, H., **Ekmekci, A.**, Keese, J., McIntush, K., & Stillisano, J. (2021, October). *Research Brief: : Year three evaluation–HPS launching Elementary Academic Foundations to STEM (LEAF to STEM)*. College Station, TX: The Texas A&M University Education Research Center.
10. **Ekmekci, A.** (2018). *Evaluation report for RUSMP 2018 summer STEM component for MECA Sunburst Summer Arts Camp* (RUSMP DN: 18-01). Houston, TX: Rice University.
9. **Ekmekci, A.** & Shah, M. (2018). *Evaluation report for RUSMP 2018 student summer camps* (RUSMP DN: 18-03). Houston, TX, Rice University.
8. **Ekmekci, A.** & Shah, M. (2018). *Evaluation report for RUSMP 2018 Summer Campus Program for teachers* (RUSMP DN: 18-02). Houston, TX, Rice University.
7. **Ekmekci, A.**, Loh, L., & Obijiofor, C. (2017). *Evaluation report for 2017 Summer Campus Program: The summer component of the 2017-18 RUSMP Teacher Quality Program for K-12 teachers* (RUSMP DN: 17-01). Houston, TX: Rice University.
6. Corkin, D., **Ekmekci, A.** & Brehm, C. (2016). *2016 Summer Campus Program: RUSMP Teacher Quality Program for K-12 Teachers* (RUSMP DN: 16-01). Houston, TX: Rice University.
5. Corkin, D., **Ekmekci, A.**, & Fan, W. (2016). [The significance of teachers' mathematical knowledge for teaching and their math background on students' math achievement.](#) *Research Brief for the Houston Independent School District*, 4(6), 1–6. Houston, TX: Houston Education Research Consortium, Rice Kinder Institute for Urban Research. Available at <https://kinder.rice.edu/research>
4. Sahin, A., **Ekmekci, A.**, & Waxman, H. (2016). *Tracking Class of 2019: How do 9th graders choose their (STEM) majors? Effects of school, out of school, and Pygmalion effect variables on students' STEM career selection*. Houston, TX.
3. Corkin, D., **Ekmekci, A.**, & Zhou, J. (2015). *2015 Summer Campus Program: RUSMP Teacher Quality Program for K-12 Teachers* (RUSMP DN: 15-01). Houston, TX: Rice University School Mathematics Project.
2. **Ekmekci, A.**, Anderson, H., & Papakonstantinou, A. (2014). *2014 Summer Campus Program: RUSMP Teacher Quality Program for K-12 Teachers* (RUSMP DN: 14-03). Houston, TX: Rice University School Mathematics Project.
1. Papakonstantinou, A., Kubena, K., & **Ekmekci, A.**, (2014). *The Rice University/Project GRAD Advanced Mathematics Institute Funded by Shell Oil Company: 2014 Report* (RUSMP DN: 14-02). Houston, TX: Rice University School Mathematics Project.

#### OTHER PRODUCTS

9. Papakonstantinou, A., & **Ekmekci, A.** (2023, March 7). [Building better pathways to STEM careers starts with teachers, counselors and parents--and a few basic math concepts.](#) *eSchool News: Innovations in Educational Transformation*.

8. **Ekmekci, A.**, Aqazade, M., & Papakonstantinou, A. (2022, May 10-17). Web Adventures: Digital Games in Science and Health. *2022 STEM For All Video Showcase: Access, Inclusion, and Equity*. <http://videohall.com/p/2550>
7. Papakonstantinou, A., **Ekmekci, A.**, & Aqazade, M. (2022, May 10-17). Development of Teacher Leaders in High-Need Urban Schools. *2022 STEM For All Video Showcase: Access, Inclusion, and Equity*. <http://videohall.com/p/2295>
6. **Ekmekci, A.** (2021, Fall). [Web Adventures Continues to Serve Teachers and Students](#). *Rice at Large*, 45, p. 8.
5. **Ekmekci, A.**, Papakonstantinou, A., & Varner, P. (2021, September). Web Adventures Interactive: Innovative online games as effective tools for broadening participation in science. Virtual Poster and Video during the 2021 Annual NSF ITEST PI meeting (virtual). <https://vimeo.com/592932018> and <https://kistorm.com/DOF7rcYEJdhGq638f1pm/1aaljtFCXIdIY63mMrWz>
4. Papakonstantinou, A., **Ekmekci, A.**, & White, C. (2021, May 11-18). Noyce Master Teaching Fellows take charge during COVID-19. *2021 STEM For All Video Showcase: COVID, Equity, & Social Justice*. <http://videohall.com/p/1947>
3. Papakonstantinou, A., **Ekmekci, A.**, Tapia, R., & Radigan, J. (2020, August). [The Rice University Robert Noyce Master Teaching Fellowship Program \(RU-MTF\)](#). 2020 Virtual Noyce Summit: Centering equity to humanize the process of coming back together. <https://www.noycevirtuallsummit.com/poster-sessions/apapakonstantinou> and <https://www.youtube.com/watch?v=-1BLfwLEXdA>
2. **Ekmekci, A.** (2020, March 17). [RUSMP represents Houston and Rice U](#). *Village News*, 35(41), pp. 1, 12.
1. Aydin, I. & Peken, M. (2006). Geometry I. In **Ekmekci, A.**, Salman M., Bas, H., Kesen, E., & Mert, U. (Eds.), *Geometry for high school*. Istanbul, Turkey: Orient Press.

#### EXTERNAL EVALUATION AND CONSULTING SERVICES

- Evaluation of the College, Career, and Military Readiness (CCMR) Leadership Academy, Glasscock School of Continuing Studies, Rice University, (2024- current).
- Evaluation of Calc Squared Program, Tapia Center for Excellence and Equity in STEM, George R. Brown School of Engineering, Rice University. (2023-current)
- External Evaluation Team Member – *LEAF to STEM—Launching Elementary Academic Foundations to STEM*. Education Innovation and Research Grant, Office of Innovation and Improvement, U.S. Department of Education. \$7,859,427. Grant #U411B180014 (2018-2023).
- Consulting as Mathematics Education Researcher – *Building Capacity: Improving STEM Graduation Rates through Engaged Learning*. NSF, HSI (HRD #1928622), \$2,499,930 (2019-2024).

#### AWARDS & HONORS

8. Travel award for 2018 *National Assessment of Educational Progress (NAEP) Training Workshop* (NCES-IES-Funded Training) – *with travel award* – June 18-20, 2018. Washington, DC: American Institutes for Research

7. Travel Award for *Specialized Content Knowledge Institute: Developing Tasks for Teaching and Assessing Mathematical Knowledge for Teaching* (NSF-Funded Workshop; November 10-13, 2016). University of Michigan, Ann Arbor.
6. Travel Award for *AERA 2016 Institute on Statistical Analysis for Education Policy: Using Large-Scale Data to Study Mathematics Education and Outcomes*. (May 10-13, 2016). AERA Grants Program, Washington, DC.
5. Travel Award for *the Spring School at the University of Würzburg: Perspectives on Research in Mathematics Education Research in the Next Decade*. (April 4-9, 2016). Julius Maximilian University of Würzburg, Bavaria, Germany.
4. Travel Award for *High School Longitudinal Study (HSLS: 09) Workshop*. (July 22-23, 2014). Arlington, VA: George Mason University.
3. Dissertation Award - Honorable Mention. (February, 2014). *Advanced Studies of National Database SIG of the American Educational Research Association (AERA)*.
2. Faculty-Student Collaboration Award (*support for attending conferences to present*; Spring 2008; Spring 2011; & Fall 2012). College of Education, The University of Texas at Austin.
1. Travel Award for *the 2011 International Database Training*. (May, 2011). National Center for Education Statistics, Institute of Education Sciences, and U.S. Department of Education.

### SERVICE & SYNERGISTIC ACTIVITIES

15. *Mentoring & Training High School Students*. (2019 – current). Research Internship in STEM Education.
14. *National Science Foundation Review Panel Member*. (2019 – current).  
Discovery Research PreK-12 (DRK-12)  
Innovative Technology Experiences for Students and Teachers (ITEST)  
NSF Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM)
13. *The Spencer Foundation Review Panel Member*. (2023 – current).  
Research-Practice Partnerships Grant Program.
12. *Editorial Board Member*. (2014 – current). SAGE Open (math education area).
11. *Reviewer*.  
2022–current International Journal of STEM Education  
2020–current Science Education  
2025 Frontiers in Education  
2025 Behavioral Sciences  
2024 Rural Educator  
2022 Cognition and Instruction  
2020 International Electronic Journal of Mathematics Education  
2020 American Educational Research Journal  
2019 Investigations in Mathematics Learning  
2018 Eurasia J. of Math, Science & Tech. Ed.; J. of Mathematical Behavior  
2015 Int. J. of Ed. in Math, Science & Tech.; Tech., Knowledge, & Learning;  
Proceedings of the 43rd Meeting of the Research Council on Math Learning  
2011 Div K – Teaching & Teacher Ed., American Educational Research Association

10. *Volunteer Tutoring*. (2019 – 2020). Math tutoring for high school students.
9. *External Evaluation Committee Member*. (2018). Five-year Center Evaluation for Education Research Center, College of Education & Human Development, Texas A&M University.
8. *Session Chair*. (2014). *Students' use of gesture and posture mimicry in developing mutual understanding*. The Joint Meeting of PME 38 & PME-NA 36, Vancouver, Canada.
7. *Proposal Reviewer*. (2013). National Competition for Replication of UTeach Secondary STEM Teacher Preparation Program. *National Math + Science Initiative, The UTeach Institute, Howard Hughes Medical Institute* (RFP for awards up to \$1,450,000 over 5 years).
6. *Session Presider*. (2012). The 34<sup>th</sup> Annual Meeting of PME-NA, Kalamazoo, MI.
5. *Executive Committee*. (2008-2009). Turkish University Students Association, UT-Austin.
4. *Science Fair Judge*.  
 2009–2010 International Energy Engineering Environment Olympiad, Houston, TX.  
 2006–2008 Austin ISD Science Fairs, TX.
3. *Graduate Student Representative*. (2007, Fall). Graduate Student Association, UT-Austin.
2. *Volunteer Residential Supervisor and Counselor*. (2003-2005). TED Istanbul College (Private K-12 school), Turkey. (Coached and supervised 60+ underserved residential 4<sup>th</sup>-10<sup>th</sup> grade students with full scholarship in both academic and non-academic manner).
1. *Volunteer Mathematics Tutor*. (2003). Summer camp for high-need students at Orgeneral Kami ve Saadet Guzey IOO, Istanbul, Turkey. (Coached and tutored 15 6<sup>th</sup>-7<sup>th</sup> grade students).

### CERTIFICATIONS AND TRAINING

21. *Research Administration Demonstration Series* – in-progress (asynchronous). NYC Research Administration Demonstration Series at New York University.
20. *Research Administrator Certificate* – in-progress (to be completed by May 2025). The Research Administrators Certification Council.
19. *Skills Training for Administrative Research Staff (STARS)*. January 29–April 2, 2025. Division of Operations, Finance & Support; Office of Research, Rice University, Houston, TX.
18. *Dollars Making Sense* – January 23–April 3, 2025. Budget & Finance, Division of Operations, Finance & Support. Rice University, Houston, TX.
17. *Research Security Training* – October 24, 2024. Houston, TX: Rice University.
16. *Research Administrators' Forum* – October 23, 2024. Houston, TX: Rice University.
15. *Research Integrity & Security Webinar* – November 3, 2023. Houston, TX: Rice University
14. *Fall 2021 Virtual Grants and Award Management Conference* – October 5–8, 2021. National Science Foundation.
13. *NSF S-STEM Capacity Building Workshop* – February 1-2, 2019. Houston, TX: Rice University.
12. *2018 National Assessment of Educational Progress (NAEP) Training Workshop* (NCES-IES-Funded Training) – *with travel award* – June 18-20, 2018. Washington, DC: American Institutes for Research.
11. *Specialized Content Knowledge Institute: Developing Tasks for Teaching and Assessing Mathematical Knowledge for Teaching* (NSF-Funded Workshop) – *with travel award* – November 10-13, 2016. Ann Arbor: MI: University of Michigan, Ann Arbor.

10. *AERA Institute on Statistical Analysis for Education Policy: Using Large-Scale Data to Study Mathematics Education and Outcomes – with travel award* – May 10-13, 2016. Washington, DC: American Educational Research Association (AERA).
9. *The Spring School at the University of Würzburg: Perspectives on Research in Mathematics Education Research in the Next Decade*. (April 4-9, 2016). Julius Maximilian University of Würzburg, Bavaria, Germany.
8. *High School Longitudinal Study (HSLs: 09) Workshop*. (July, 2014). Arlington, VA: George Mason University. – *with travel award*.
7. *Learning Mathematics for Teaching (LMT) and Teacher Knowledge Assessment System (TKAS) Training*. (March, 2014). University of Michigan (Online training).
6. *UTeach Institute Classroom Interactions Workshop*. (April, 18-19, 2013). Houston, TX: teachHOUSTON, University of Houston.
5. *Short Course on Making Sense of Multivariate Data*. (May, 2012). Austin, TX: Summer Statistics Institute, Division of Statistics & Scientific Computation, The University of Texas-Austin.
4. *International Database Training*. (May, 2011). Bethesda, Maryland: National Center for Education Statistics, Institute of Education Sciences, and U.S. Department of Education.
3. *NSF Chautauqua Short Course Program for College Teachers*. (June 8-9, 2009). *Models and Modeling in the Science and Mathematics Classroom – Making Learning Visible through Multi-Tier Interaction*. Austin, TX: Center for Science and Mathematics Education, The University of Texas at Austin.
2. *NSF Chautauqua Short Course Program for College Teachers*. (May 29-31, 2007). *Models and Modeling in the Science and Mathematics Classroom – A Window into Students' Ways of Thinking*. Center for Science and Mathematics Education, The University of Texas-Austin.
1. *ASPECTS Professional Development Series: Certification on Assessment*. (Spring, 2006). Austin, TX: The University of Texas at Austin. (Completed 6 sessions on Assessment).

### COMPUTER SKILLS

SPSS, STATA, HLM, R, Mplus, NVivo, Express Scribe, Qualtrics, SurveyMonkey, Zotero, EndNote, Adobe Acrobat Pro, NetLogo, TI-Navigator system, Online collaboration tools (Google drive, Google docs, Dropbox), Microsoft Office (Word, Excel, PowerPoint).