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Teaching, Leadership, and Professional Practice
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EDUCATIONAL BACKGROUND

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| Doctor of Philosophy in Curriculum and Instruction—Mathematics Education Purdue University, West Lafayette, IN, USA. Dissertation: <i>Two Mathematics Teachers' Personal Practical Knowledge: Experiences Making Curriculum Within the 3D Inquiry Space.</i> Major Professor: Signe E. Kastberg | December 2017 |
| Master's degree in mathematics University of Concepción, Concepción, Chile | October 2007 |
| Bachelor's degree in education University of Concepción, Concepción, Chile | January 2004 |
| Secondary Mathematics Teacher University of Concepción, Concepción, Chile | January 2004 |

PROFESSIONAL EXPERIENCE

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| Assistant Professor, Department of Teaching, Leadership, and Professional Practice, College of Education University of North Dakota, ND, USA | August 2023 - Present |
| Research Associate, Center for Advancing the Teaching and Learning of STEM Purdue University, West Lafayette, IN, USA | May 2020 – July 2023 |
| Visiting Assistant Professor, Department of Curriculum and Instruction Purdue University, West Lafayette, IN, USA | Aug. 2019 - May 2020 |
| Post-Doctoral Research Associate, Department of Biological Sciences Purdue University, West Lafayette, IN, USA | Jan. 2018 – Aug. 2019 |
| Research Assistant, Department of Engineering Education Purdue University, West Lafayette, IN, USA | Aug. 2016 – Dec. 2017 |

COURSES TAUGHT

Undergraduate Courses: University of North Dakota

TL 440: Mathematics Methods in Elementary School (TEAM 2023-2024)

Mathematics methods course for elementary teacher candidates.

Plan and teach instructional activities to support mathematics teaching practice centered on learners' ways of being.

- *Supervise pre-service teachers in their field teaching experiences.*

Evaluate pre-service teachers' practices using national assessment items.

TL 400: Mathematics Methods (2023-2024)

Mathematics methods course for middle and secondary pre-service mathematics teachers.

- *Plan and teach instructional activities to support mathematics teaching practice centered on learners' ways of being.*
- *Supervise pre-service teachers in their field teaching experiences.*
- *Evaluate pre-service teachers' practices using national assessment items.*
- *Supervise pre-service teachers in their field experience*

Graduate Courses: University of North Dakota

TL 522: Mathematics in the Elementary School (Spring 2024, Summer 2024)

Mathematics method course for in-service teachers working towards a master's degree.

- *Design instructional activities that engage teachers in mathematics as a human activity.*
- *Design instructional activities to teach mathematics as a problem-solving activity.*

Curriculum Development Activities

Gardner S. M., Abraham J. K., Meir E., Kerry J. K., **Suazo-Flores E.**, & Pope, D. *Understanding data*, Module for biology undergraduate students. Project supported by the National Science Foundation, award number 1726180. For more information visit: <http://simbio.com/>

- *Create content knowledge embedded in the curriculum*
- *Design interview protocol to elicit undergraduate biology students' thinking with the curriculum*
- *Pilot the curriculum with ~75 undergraduate biology students and four instructors from Valparaiso and Purdue University*
- *Conduct and disseminate research*

Siverling, E. A., **Suazo, E.**, Dare, E., Douglas, K., & Moore, T. (2017, August). *Ecuadorian Fishermen*, Grade 6-8, EngrTEAMS: Engineering to Transform the Education of Analysis, Measurement, and Science in a Team-Based Targeted Mathematics-Science Partnership. University of Minnesota & Purdue University Research Foundation. Retrieved from <https://sites.google.com/a/umn.edu/engrteams/curriculum>

- *Design science lessons for the curriculum*
- *Write lessons plans, evaluations, and guidelines for teachers*

Liaison of the Indianapolis STEM Teacher Residency Program (ISTR) funded by the U.S. Department of Education (2020-2022). <https://www.education.purdue.edu/catalyst/catalyst-programs/indy-stem-teacher-residency/>

- *Supervise and mentor science teacher candidates.*
- *Facilitate first year induction program.*
- *Organize workshop to support in-service and prospective teachers.*

Facilitator of a STEM activity as part of a Design STEM Kids Conference (Summer and Fall 2021).

- *Engage 43 classrooms and 1128 fifth-grade students over a two-day period.*

Facilitator of professional development experiences for ~50 K-8 teachers as part of the Indianapolis Teaching Fellows program (<http://tntpteachingfellows.org/indianapolis>) (Summer 2017). Indianapolis, Indiana.

- *Design lessons for K-8 mathematics teachers and 6-8 mathematics teachers*
- *Document teachers' and instructors' professional development experiences and debriefed regarding curricular and pedagogical changes to further engage teachers.*

Facilitator of the STEM professional development programs for middle school mathematics teachers (Summer 2017). West Lafayette, Indiana and St. Paul, Minnesota.

- *Design curriculum materials that framed teachers' professional development experience*

- *Support teachers in enacting the provided curriculum materials.*
- *Visit teachers' classrooms to document their experiences teaching the new curriculum materials.*

Facilitator of the STEM professional development programs for middle school mathematics teachers (~10 teachers) (Summers 2015-2017). Funded by Purdue's I-STEM Resource Network from the Indiana Commission for Higher Education and the U.S. Department of Education. South Bend, Indiana.

- *Design lessons for 5-8 mathematics teachers*
- *Engage and support teachers in discussions regarding teaching and learning mathematics with real-world contexts.*

Calculus Instructor of the Minority Engineering Summer Program (Summers 2015-2017). Purdue University (100 students in total)

- *Participate in workshops to develop talents in underserved students with Native American, African American, and Latino backgrounds.*
- *Design and teach calculus lessons with focus on student-centered and critical thinking.*
- *Support students in their self-initiated search for academic and emotional support*

Facilitator of mathematics activities (Summer 2015) as part of the Summer Gifted Education Research and Resource Institute. Purdue University.

- *Participate in online and in-person workshops to develop talents in underserved students with Native American, African American, and Latino backgrounds.*
- *Design and teach activities with focus on student-centered learning and mathematics embedded in real-world contexts (~34 seventh and eighth-grade students)*

Co-teacher of Algebra and Pre-Algebra lessons (2014-2017). Tecumseh Junior High School, Indiana.

- *Design and co-teach lessons with focus on student-centered learning and critical thinking.*
- *Support the classroom teacher in grading papers and self-initiated search for academic support.*
- *Support eighth-grade students with African American and Latino backgrounds*

Facilitator of professional development experiences for elementary mathematics teachers (~10 teachers) (Summer 2014). Washington Township, Indiana.

- *Design lessons and supported teachers in discussions regarding teaching and learning mathematics.*
- *Visit teachers' classroom to learn about their environments and teaching needs.*

Facilitator of professional development experiences for elementary mathematics teachers (~50 teachers) (2010-2013). Concepcion and Los Alamos, Chile.

- *Design lessons and engaged teachers in discussions regarding teaching and learning mathematics.*
- *Advise teachers in their individual and collective research projects.*
- *Visit teachers' classrooms to document their experiences teaching mathematics.*

SERVICE

UND College of Education and Human Development

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| 2024-2026 | Diverse, Equity & Inclusion Committee |
| 2023-2024 | Alice T. Clark member |
| 2024 | Spanish Story Time at the Grand Forks Public Library |

Professional Associations: Conference Proceeding Editor

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| 2023 | W. S. Walker, III, L. A. Bryan, S. S. Guzey, & E. Suazo-Flores (Eds.), <i>Proceedings of the eighth annual Indiana STEM Education Conference</i> . West Lafayette, IN. |
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- 2022 W. S. Walker, III, L. A. Bryan, S. S. Guzey, & E. Suazo-Flores (Eds.), *Proceedings of the seventh annual Indiana STEM Education Conference*. West Lafayette, IN. <https://doi.org/10.5703/1288284317449>
- 2021 W. S. Walker, III, L. A. Bryan, S. S. Guzey, & E. Suazo-Flores (Eds.), *Proceedings of the sixth annual Indiana STEM Education Conference*. West Lafayette, IN. <https://doi.org/10.5703/1288284317306>

Professional Associations: Invited Talks

- 2023 *Cultivando las formas de saber de los educadores de matemáticas*. Segundo encuentro de formadores de profesores de matemáticas.
- 2021 *Cultivando trabajo e investigación interdisciplinaria*. Mayor University, Santiago, Chile. <https://www.youtube.com/watch?v=-anUXXZm2-U>
- 2020 *Metodologías dinámicas aplicadas a contenidos STEM*. Teachers from Colegio Maria Reiche, Lima, Perú.
- Persistencia: La historia de una educadora de matemáticas* (November 2020). To high school students from Colegio Maria Reiche, Lima, Perú.
- Investigando y cultivando el conocimiento práctico en Educación Matemática* (November 2020). To the mathematics education community from University of Concepcion, Chile.

Professional Associations: Journal Reviewer

- 2023-2024 *School Science and Mathematics Journal*
- 2024 *Journal of Mathematics Teacher Education*
- 2021 *Journal for Research in Mathematics Education*
- 2019 - *Teaching for Excellence and Equity in Mathematics*
- Special issue Teaching Mathematics with Multilingual Learners: Actions and Innovations.
 - Special Issue Antiracism in Mathematics Education.
- <https://toma.memberclicks.net/current-teem--noticias--enews?servId=7867>
- 2020 - Special Interest Group in Mathematics Education, *American Educational Research Association Annual Meeting*.
- Narrative and Research Special Interest Group, *American Educational Research Association Annual Meeting*.
- Division K Teaching and Teacher Education, *American Educational Research Association Annual Meeting*.
- 2016 - Reviewer of Proceedings of the North American Chapter of the International Group for The Psychology of Mathematics Education (PME-NA) Annual Meeting
- 2019 Reviewer of The Self-Study of Teacher Education Practices (S-STEP) International Biennial Conference.

Professional Associations: Association of Mathematics Teacher Educators

- 2020 - 2023 Member of the *Association of Mathematics Teacher Educators Equity Committee* part of the Advocacy, Equity, and Research Division (<https://amte.net/committee/equity-committee-2021>).
- 2018 - 2021 Newsletter editor of the Hoosier Association of Mathematics Teacher Educators. (<https://hamte.org/>).

PUBLICATIONS

Refereed Publications

Suazo-Flores, E., Walker, W.S., Kastberg, S.E. et al. (2024). Mathematics education researchers' practices in interdisciplinary collaborations: Embracing different ways of knowing. *Mathematics Education Research Journal*. <https://doi.org/10.1007/s13394-024-00489-x>

Suazo-Flores, E., & Roetker, L. (2024). Construct it! Building painted cubes: Serena's case. *Mathematics Teacher: Learning and Teaching PK-12*, 117(1), 36-40. <https://doi.org/10.5951/MTLT.2023.0069>.

Suazo-Flores, E., Kastberg, S. E., Grant, M. & Chapman, O. (2023). Commentary on the special issue: Seeing self-based methodology through a philosophical lens. Special Issue at the *Philosophy of Mathematics Education Journal*, 40.

<https://education.exeter.ac.uk/research/centres/stem/publications/pmej/pome40/index.html>

Kastberg, S. E., **Suazo-Flores, E.**, Grant, M. & Chapman, O. (2023). Seeing self-based methodology through a philosophical lens. Special Issue at the *Philosophy of Mathematics Education Journal*, 40.

<https://education.exeter.ac.uk/research/centres/stem/publications/pmej/pome40/index.html>

Suazo-Flores, E., & Roetker, L. (2021). Pack a truck: Decontextualizing and contextualizing a task. *Mathematics Teacher: Learning and Teaching PK-12*, 6(114), 468-472. <https://doi.org/10.5951/MTLT.2020.0289>

Suazo-Flores, E., Alyami, H., Walker, W. S., III, Aqazade, M., & Kastberg, S. E. (2021). A call for exploring mathematics education researchers' interdisciplinary research practices. *Mathematics Education Research Journal*. <https://doi.org/10.1007/s13394-021-00371-0>

Gardner, S., **Suazo-Flores, E.**, Abraham, J. K., Karippadath, A., Meir, E., & Maruca, S., (2021). Biology undergraduate students' graphing practice in digital versus pen-and-paper graphing environments. *Journal of Science Education and Technology*, 30(3), 431-446. <https://doi.org/10.1007/s10956-020-09886-w>

Siverling, E., Moore, T., **Suazo-Flores, E.**, Mathis, C., & Guzey, S. (2021). What initiates evidence-based reasoning?: Situations that prompt students to support their design ideas and decisions. *Journal of Engineering Education*, 10(2), 294-317. <https://doi.org/10.1002/jee.20384>

Siverling, E. A., **Suazo-Flores, E.**, Mathis, C. A., Moore, T. J. (2019). Students' use of STEM content in design justifications during engineering design-based STEM integration. *School Science and Mathematics Journal*, 119(8), 457-474. <https://doi.org/10.1111/ssm.12373>

Kastberg, S. E., **Suazo-Flores, E.**, & Richardson, S. E. (2019). Mathematics educator teacher stories. *Revista Brasileira de Pesquisa (Auto) Biographical*, 4(10), 48-67. <https://doi.org/10.31892/rbpab2525-426X.2019.v4.n10.p48-67>

Kersey, E., Max, B., Akarsu, M., Bloome, L., **Suazo, E.**, & Hoffman, A. J. (2019). Use of written curriculum in applied calculus. *International Journal of Research in Education and Science (IJRES)*, 5(2), 457-467.

Suazo-Flores, E. (2018). Students' understanding of area: Combining practical and mathematical knowledge with a real world task. *International Journal for Research in Mathematics Education*, 8(1), 23-37.

Book Chapters

Suazo-Flores, E., & Alyami, H. (2023). Transcending school mathematics and science while making art. In Harper, S. & Cox D. (Eds.). *Modern math tasks to provoke transformational thinking, Grades 9-12* (pp. 126-144). National Council of

Teachers of Mathematics. <https://www.nctm.org/Store/Products/Modern-Math-Tasks-to-Provoke-Transformational-Thinking,-Grades-9-12/>

Meir, E., Gardner, S.M., Maruca, S., **Suazo-Flores, E.**, Abraham, J.K. (2023). Building a performance-based assessment of graph construction using evidence-centered design. In Spector, M.J., Lockee, B.B., Childress, M.D. (Eds.), *Learning, design, and technology*. Springer. https://doi.org/10.1007/978-3-319-17727-4_187-1

Chapman, O., Kastberg, S. E., **Suazo-Flores, E.**, Cox, D., & Ward, J. (2020). Mathematics teacher educators' inquiry into their practice. In Beswick, K. & Chapman, O. (Eds.), *International handbook of mathematics teacher education, 2nd Edition. Volume 2: The mathematics teacher educator as a developing professional* (pp. 157-187). Brill-Sense Publishers. https://doi.org/10.1163/9789004424210_008

Books

Kastberg, E., S., **Suazo-Flores, E.**, Grant, M., & Chapman, O. (2025 in press). *Mathematics teacher educators' intimate scholarship: Being, knowing, and ethics*. Emerald Publisher.

Refereed National and International Conference Proceedings

Suazo-Flores, E., McGrail, C., & Adgerson, A. (January 2025). A socio-ecological STEM task: Re-attaching preschoolers to nature. *ICMI Study 27, Mathematics education and the socioecological*. Quezon City, Philippines.

Suazo-Flores, E., (July, 2024). *A mathematics teacher educator's interactions with a mathematics teacher: Researching ways of knowing*. Proceedings of the 15th International Congress on Mathematical Education, Sydney, Australia.

Haiduc, A. M., **Suazo-Flores, E.**, Kastberg, E., & Kenney, R. (July, 2024). *Mathematics teacher's questioning: Cognitive and affective domains to nurture students' mathematical identity formation*. Proceedings of the 15th International Congress on Mathematical Education, Sydney, Australia.

Max, B., Kastberg, S., & **Suazo-Flores, E.**, (July, 2024). *Problem-posing and geometry standards: Building from preservice elementary teachers' initial efforts in mathematics content courses*. Proceedings of the 15th International Congress on Mathematical Education, Sydney, Australia.

Suazo-Flores, E., Nuguid, L., & Kastberg, S. E. (2023). Urban girls' visuospatial reasoning: Maps as eco-cultural tools to leverage lived experiences and spatial reasoning. In Lamberg, T., & Moss, D., *Proceedings of the forty-fifth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (Vol. 1)*, (pp. 204). University of Nevada, Reno.

Haiduc, A. M., **Suazo-Flores, E.**, Kastberg, S. E., Kenney, R., Leach S., & Barber-Dansby, A. (2023). Mathematics teacher questioning: Cognitive and affective domains to nurture students' mathematical identity formation. In Lamberg, T., & Moss, D., *Proceedings of the forty-fifth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (Vol. 2)*, (pp. 96-104). University of Nevada, Reno.

Suazo-Flores, E., Walker, W. S., III, Alyami, H., Kastberg, S. E., & Aqazade, M. (2022). Mathematics education researchers' practices in interdisciplinary collaborations: Embracing ways of knowing. In Lischka, A., Strayer, J., Lovett, J., Jones, R., & Dyer, E. (Eds.), *Proceedings of the forty-four annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 968-975). Middle Tennessee State University. <http://www.pmena.org/pmenaproceedings/PMENA%2044%202022%20Proceedings.pdf>

Suazo-Flores, E., Kastberg, S., Grant, M., & Chapman, O. (2022). Philosophical underpinnings of mathematics teacher educators' work. In Lischka, A., Strayer, J., Lovett, J., Jones, R., & Dyer, E. (Eds.), *Proceedings of the forty-four annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 2184-2185). Middle Tennessee State University. <http://www.pmena.org/pmenaproceedings/PMENA%2044%202022%20Proceedings.pdf>

Suazo-Flores, E., Walker, W. S., III, Alyami, H., Aqazade, M., & Kastberg, S. E. (2021). Conceptualizing practices in interdisciplinary groups from a mathematics education researcher's perspective. In D. Olanoff, K., Johnson, & S.M., Spitzer (Eds.), *Proceedings of the forty-third annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 824-828). Philadelphia, PA.

<http://www.pmena.org/pmenaproceedings/PMENA%2043%202021%20Proceedings.pdf>

Suazo-Flores, E., Kastberg, S., Grant, M., Ward, J., Richardson, S. E., & Chapman, O. (2021). Using self-based methodologies to unpack mathematics teacher educators' work. In D. Olanoff, K., Johnson, & S.M., Spitzer (Eds.), *Proceedings of the forty-third annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1907-1910). Philadelphia, PA.

<http://www.pmena.org/pmenaproceedings/PMENA%2043%202021%20Proceedings.pdf>

Zhou, L., **Suazo-Flores, E.**, Sapkota, B., Mbewe, R., & Newton, J. (2021) Image of mathematics in- and out-of-school: A case study of two original participants in an afterschool STEM club-girls excelling in math and science (GEMS). In D. Olanoff, K., Johnson, & S.M., Spitzer (Eds.), *Proceedings of the forty-third annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1210-1219). Philadelphia, PA.

<http://www.pmena.org/pmenaproceedings/PMENA%2043%202021%20Proceedings.pdf>

Richardson, S. E., **Suazo-Flores, E.**, & Rice, M. (2021). Developing STEM identity: Beyond STEM content knowledge in an informal STEM club. In D. Kolloche (Ed.), *Exploring new ways to connect: Proceedings of the Eleventh International Mathematics Education and Society Conference* (Vol. 3, pp. 839–848). Tredition.

<https://doi.org/10.5281/zenodo.5457236>

Suazo-Flores, E., & Walker, W., Alyami, H., Aqazade, M., & Kastberg, S. (2021). Understanding practices in an interdisciplinary group from a case study. In D. Kolloche (Ed.), *Exploring new ways to connect: Proceedings of the Eleventh International Mathematics Education and Society Conference* (Vol. 3, pp. 986-994). Tredition.

<https://doi.org/10.5281/zenodo.5457236>

Suazo-Flores, E., Richardson, S. E., & Zhou, L. (2021). *GEMS research projects*. In W. S. Walker, III, L. A. Bryan, S. S. Guzey, & E. Suazo-Flores (Eds.), *Proceedings of the sixth annual Indiana STEM Education Conference*. West Lafayette, IN. <https://docs.lib.purdue.edu/instemed/2021/posters/>

Suazo-Flores, E. (2020). A Mathematics teacher's curricular decisions. In Sacristan, A.I., Cortes-Zavala, J.C. & Ruiz-Arias, P.M. (Eds.), *Proceedings of the 42nd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 181-184). Cinvestav / AMIUTEM / PME-NA.

<https://doi.org/10.51272/pmena.42.2020>

Suazo-Flores, E., Ward, J., Richardson, S. E., Grant, M., Cox, D., Kastberg, S., & Chapman, O. (2020). Mathematics teacher educators using self-based methodologies. In Sacristan, A.I., Cortes-Zavala, J.C. & Ruiz-Arias, P.M. (Eds.), *Proceedings of the 42nd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 19181). Cinvestav / AMIUTEM / PME-NA. <https://doi.org/10.51272/pmena.42.2020>

Suazo-Flores, E., Walker, W. S., III, Aqazade, M., Alyami, H., & Kastberg, S. E. (2019). Mathematics education researchers' interdisciplinary collaboration practices. In Otten, S., de Araujo, Z., Candela, A., Munter, C., & Haines, C. (Eds.), *Proceedings of the 41st annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. University of Missouri.

<http://www.pmena.org/pmenaproceedings/PMENA%2041%202019%20Proceedings.pdf>

Suazo-Flores, E., Kastberg, S. E., Cox, D., E., Ward, J., Chapman, O., & Grant, M. (2019). Mathematics teacher educators' exploring self-based methodologies. In Otten, S., de Araujo, Z., Candela, A., Munter, C., & Haines, C. (Eds.), *Proceedings of the 41st annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 2012-2019). University of Missouri.

<http://www.pmena.org/pmenaproceedings/PMENA%2041%202019%20Proceedings.pdf>

Suazo-Flores, E., Angra, A., & Gardner, S. (2018). Working on the edge of mathematics, statistics, and biology: Biology undergraduate students' graphs constructions. In Hodges, T. E., Roy, G.J., & Tyminski, A. M. (Eds.),

Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 876-879). University of South Carolina & Clemson University.

<http://www.pmena.org/pmenaproceedings/PMENA%2040%202018%20Proceedings.pdf>

Walker, W. S., III, **Suazo-Flores, E.**, Aqazade, M., Alyami, H., & Kastberg, S. E. (2018). Nature, challenges, and strategies of stem research teams. In Hodges, T. E., Roy, G.J., & Tyminski, A. M. (Eds.), *Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1366-1366). University of South Carolina & Clemson University.

<http://www.pmena.org/pmenaproceedings/PMENA%2040%202018%20Proceedings.pdf>

Suazo-Flores, E., Kastberg, E., Ward, J., Cox, D., & Chapman, O. (2018). Mathematics teacher educators' inquiry into their practice: Unpacking methodologies for professional and personal growth. In Hodges, T. E., Roy, G.J., & Tyminski, A. M. (Eds.), *Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1469-1477). University of South Carolina & Clemson University.

<http://www.pmena.org/pmenaproceedings/PMENA%2040%202018%20Proceedings.pdf>

Siverling, E. A., **Suazo, E.**, Mathis, C. A., & Moore, T. J. (2018, June). STEM content in elementary school students' evidence based reasoning discussions (Fundamental). Paper presented at the *125th American Society for Engineering Education (ASEE), Annual Conference & Exposition*.

Miller, H., Moore, T. J., Glancy, A. W., Siverling, E. A., Guzey, S. S., Johnston, A. C., Merzdorf, H. E., **Suazo-Flores, E.**, & Akarsu, M. (2017). Mineral mayhem: Using engineering to teach middle school earth science. *124th American Society for Engineering Education (ASEE)*.

Siverling, E. A., **Suazo, E.**, Mathis, C. A., Moore, T. J., Guzey, S. S., & Whipple, K. S. (2017). Middle school students' engineering discussions: What initiates evidence-based reasoning? (Fundamental). Paper presented at the *124th American Society for Engineering Education (ASEE), Annual Conference & Exposition*.

Bofferding, L., Hoffman, A., & **Suazo, E.** (2015). Number line estimation with negatives. In Bartell, T. G., Bieda, K. N., Putnam, R. T., Bradfield, K., & Dominguez, H. (Eds.), *Proceedings of the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 133-140). Michigan State University.

<http://www.pmena.org/pmenaproceedings/PMENA%2037%202015%20Proceedings.pdf>

Kersey, E. Max, B. Akarsu, M. Bloome, L. **Suazo, E.**, & Hoffman, A. (2015). Use of written curriculum in applied calculus. In Bartell, T. G., Bieda, K. N., Putnam, R. T., Bradfield, K., & Dominguez, H. (Eds.), *Proceedings of the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 112-115). Michigan State University.

<http://www.pmena.org/pmenaproceedings/PMENA%2037%202015%20Proceedings.pdf>

An T., Richardson, S., **Suazo, E.**, & Yigit, M. (2014) Eighth-grade mathematics teachers' reflections on practice. In Oosterle, S., Nicol, C., Liljedahl, P., & Allan, D. (Eds.), *Proceedings of the 38th joint meeting of Psychology of Mathematics Education and 36th North American Chapter of the International Group for The Psychology of Mathematics Education* (vol. 6).

<http://igpme.org>

Other Publications

Yeo, S., Ramsay-Jordan, N., **Suazo-Flores, E.**, King, B., & Fernandes, A. (2022). The equity committee's responses to AMTE opening plenary 2022: What are our responsibilities to mathematics teacher education at this moment? *Connections*, 32(1). <https://amte.net/connections/2022/08/equity-committee%E2%80%99s-responses-amte-opening-plenary-2022-what-are-our>

Suazo-Flores, E., Stoehr, K., & Fernandes, A. (2020). Mathematics teacher educators' conceptualizations of equity. *Connections*, 30(2). <https://amte.net/connections/2020/11/mathematics-teacher-educators'-conceptualizations-equity>

Suazo-Flores, E. (2016). Working together: A caring relation between a teacher and a mathematics educator. *Purdue Journal of Service-Learning and International Engagement*, 3(1), 34-37. <https://doi.org/10.5703/1288284316172>

Under Review

Suazo-Flores, E., McGrail C., & Adgerson, A. (October 2024). The Future of STEM: Socioecological STEM Education. In Akarsu, M. (Ed.) *Educational practices in 21st. century: STEM education approach* (pp.). Palgrave Macmillan.

Suazo-Flores, E. (September 2024). A mathematics teacher educator's autoethnography. *Journal of Urban Mathematics Education*.

Suazo-Flores, E., Sherva, D., McGrail, C., & Adgerson, A. (September 2024). Soil, earthworms, and arrays: A Number Talk. *Mathematics Teacher: Learning and Teaching PreK-12*.

Zhou, L., **Suazo-Flores, E.**, & Saptoka, B. (September 2024). Image of mathematics: A case study of two women's early mathematics experiences. *School Science and Mathematics*.

Suazo-Flores, E. & Roetker, L. (March 2024). Narrative inquiry a tool to work alongside teachers and build mathematics teacher education knowledge. *Mathematics Teacher Educator*.

PROFESSIONAL PRESENTATIONS

National and International

Suazo-Flores, E. & Brant, S. (April 2025). A mathematics teacher educator's practical knowledge [Conference presentation]. *Annual meeting of the American Educational Research Association (AERA)*. Denver, Colorado, United States.

Suazo-Flores, E., Adgerson, A., McGrail, C., & Yearwood, J. (April 2025). The origins of a village of educators nurturing preschoolers' visuospatial reasoning through socio-ecological STEM tasks [Conference presentation]. *Annual meeting of the American Educational Research Association (AERA)*. Denver, Colorado, United States.

Max, B., Kastberg, S., & **Suazo-Flores, E.**, (July, 2024). *Problem-posing and geometry standards: Building from preservice elementary teachers' initial efforts in mathematics content courses*. 15th International Congress on Mathematical Education, Sydney, Australia.

Suazo-Flores, E., & Sherva, D. (June, 2024). *Teaching children mathematics using a problem-solving approach*. North Dakota Council of Teachers of Mathematics 2024 Summer Conference, Mayville, North Dakota.

Suazo-Flores, E. (April, 2024). A mathematics teacher educator's experiences in an after-school girls club. AERA Annual meeting, Philadelphia, PA.

Suazo-Flores, E. (April, 2024). A mathematics teacher's curriculum decision image: Unearthing how knowledge interacts with practice. AERA Annual meeting, Philadelphia, PA.

Max, B., **Suazo-Flores, E.**, & Kastberg, S. (2024, February). *Problem posing and geometry standards: Building from preservice elementary teachers' initial efforts* [Conference presentation]. Association of Mathematics Teacher Educators, Orlando, FL.

Suazo-Flores, E. (2023). *From a partnership liaison to a liaison of teachers and learners: An autoethnography*. AERA Annual Meeting, Chicago, IL.

Walker, W. S., **Suazo-Flores, E.**, Kastberg, S., Aqazade, M., & Alyami, H. (2023). *Practices that support mathematics education researchers' work in interdisciplinary collaborations*. AERA Annual Meeting, Chicago, IL.

Suazo-Flores, E., Kastberg, S., & Grant, M. (2022, February 11). *Mathematics teacher educators' professional development on self-based methodologies* [working group]. Association of Mathematics Teacher Educators 2022 Annual Meeting, Las Vegas, NV.

Max, B., **Suazo-Flores, E.**, & Kastberg, S. (2022, February 10). *Collaborations among faculty to support preservice elementary teachers' development* [Conference presentation]. Association of Mathematics Teacher Educators, Las Vegas, NV.

Zhou, L. & Richardson, S., **Suazo-Flores, E.**, & Kastberg, S. (2022, February 10). *Mathematics teacher educators' promoting alternative views of mathematics* [Conference presentation]. Association of Mathematics Teacher Educators, Las Vegas, NV.

Ramsay-Jordan, N., **Suazo-Flores, E.**, Fernandes, A., & Edwards, B. (2022, February 10). *Troubling the equity waters: Continued discussions with the AMTE Equity Committee* [Conference presentation]. Association of Mathematics Teacher Educators, Las Vegas, NV.

Leiva-Lopez, C., Fernandes, A., Kalinec-Craig, C. & **Suazo-Flores E.** (2022, February 13). *Multiple perspectives on equity in mathematics education and AMTE's actions* [Conference presentation]. Association of Mathematics Teacher Educators, Orlando, FL.

Suazo-Flores, E., & Roetker, L. (2020, April 17-21) *Personal practical knowledge: Reenvisioning mathematics teacher education* [Roundtable Session]. AERA Annual Meeting, San Francisco, CA <http://tinyurl.com/w4f2moj> (Conference Canceled)

Suazo-Flores, E., Kersey, E. A., Richardson, S. & Bloome, L. (2020, April 17-21) *Becoming people and mathematics education researchers* [Conference presentation]. AERA Annual Meeting San Francisco, CA <http://tinyurl.com/u49gvtv> (Conference Canceled).

Alyami, H., **Suazo-Flores, E.**, Walker, W. S., Kastberg, S. E. & Aqazade, M. (2020, Apr 17 - 21) *Interdisciplinary research practices: The case of mathematics education researchers* [Poster session]. AERA Annual Meeting, San Francisco, CA <http://tinyurl.com/r96ugq4> (Conference Canceled).

Suazo-Flores, E., Karippadath, A., Gardner S., Abraham, J., Meir, E., & Maruca, S. (2019, July 26-28). *Characterizing students' graphing practices in pen-and-paper and digital formats* [Poster session]. Society for the Advancement of Biology Education Research, Twin Cities, MN.

Suazo-Flores, E., Gardner S., Abraham, J., Maruca, S., & Meir, E. (2019, July 26-28). *Going around the evidence-based design wheel to develop a digital assessment of undergraduate biology students' graphing ability* [Conference presentation]. Society for the Advancement of Biology Education Research, Twin Cities, MN.

Abraham, J. & **Suazo-Flores, E.** (2019, July 26-28). *Identifying knowledge bases for graphing in biology: A student theoretical model* [Conference presentation]. Society for the Advancement of Biology Education Research, Twin Cities, MN.

Kastberg, S. E., **Suazo-Flores, E.**, & Richardson, S. E. (2019, May 18). *Counter-narratives to teacher education: The role of teacher stories in MTE development* [Conference presentation]. Fifteenth International Conference of Qualitative Research, University of Illinois at Urbana-Champaign, IL.

Suazo-Flores, E., Gardner, S., Abraham J. K., Karippadath, A., Meir, E., & Maruca, S. (2019, May 17). *Characterizing undergraduate biology students' graphing practices* [Poster session]. The United States Conference on Teaching Statistics, State College, PA.

Suazo-Flores, E. (2019, April 6). *Two mathematics teachers' personal practical knowledge* [Conference presentation]. AERA Annual Meeting, Toronto, Canada.

Suazo-Flores, E., & Kastberg, S. E. (2019, February 8). *Inquiring into mathematics teacher educators' views of teacher stories* [Conference presentation]. Association of Mathematics Teacher Educators, Orlando, FL.

- Suazo-Flores, E.,** Angra, A., & Gardner, S. M. (2018, July 26-28). *Pushing the boundary to reveal student competence with graph choice and construction* [Conference presentation]. Society for the Advancement of Biology Education Research, Twin Cities, MN.
- Suazo-Flores, E.,** Allison-Bunnell, S. W., Maruca, S., Quick, J., Abraham, J. K., Meir, E., & Gardner, S. M. (2018, July 26-28). *Developing a digital tool to evaluate and teach graphing in introductory biology* [Poster session]. Society for the Advancement of Biology Education Research, Twin Cities, MN.
- Suazo-Flores, E.** (2018, May 17-19). *Two mathematics teachers' personal practical knowledge: Experiences making curriculum within the 3D inquiry space* [Conference presentation]. Fourteenth International Conference of Qualitative Research, University of Illinois at Urbana-Champaign, IL.
- Suazo-Flores, E.,** Kersey, E., Bloome, L., Richardson, S. E., & Burdick, J. (2018, May 17-19). *Implementing narrative inquiry studies in mathematics education: Tensions, challenges, and joys* [Panel]. Fourteenth International Conference of Qualitative Research, University of Illinois at Urbana-Champaign, IL.
- Suazo-Flores, E.,** Kastberg, S., Sanchez, W., Ward, J., & Cox, D. (2018, February 9). *Mathematics teacher educators' inquiry into their practice: Unpacking methodologies for professional and personal growth* [Conference presentation]. Association of Mathematics Teacher Educators, Houston, TX.
- Suazo-Flores, E.** (2016, May 21). *Working together: An example of a caring relation between a teacher and a mathematics educator* [Conference presentation]. Twelfth International Conference of Qualitative Research, University of Illinois at Urbana-Champaign, IL.
- Suazo-Flores, E.** (2017, October). *A mathematics teacher educator's learning experience: Unpacking relationships, mathematics, and emotions* [Conference presentation]. Mid-Western Educational Research Association, Evansville, Chicago, IL.

GRANTS

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| 2024 | University of North Dakota Connect Grant. Spanish Storytime Project. Cole C. (PI) & Elizabeth Suazo-Flores (Co-PI). \$5,000. |
| 2024 | University of North Dakota faculty instructional development committee (FIDC) SoTL summer writing grant. US\$3,000. |
| 2024 | College of Education and Human Development, Summer Writing Grant. US\$5,000. Suazo-Flores, E. (PI), Adgerson, A., McGrail, C., & Yearwood, J.A. (co-PIs). |
| 2024 | University of North Dakota faculty instructional development committee (FIDC) travel grant. US\$954.21. |
| 2024 | University of North Dakota, College of Education and Human Development, Blikre/Netland faculty support award. US\$1,000. |
| 2023 | Data Science for High School Students' Experiences, Social Awareness, and STEM Career Aspiration National Science Foundation, DRK-12, US\$3,000,000 (submitted) Co-Principal Investigator |
| 2021 | <i>Foregrounding the M in STEM: Co-Developing Mathematics Toolkits to Empower Girls Excelling in Math and Science (GEMS) Club Leaders</i> National Science Foundation, US\$2,668,490 (not funded) Co-Principal Investigator |
| 2021 | <i>Foregrounding High School Mathematics in Project-Based Learning</i> Purdue Polytechnic High School Seed Grant, US\$20,000 Co-Principal Investigator |
| 2020 | <i>Kazakhstan Education Research and Capacity-Building Program</i> |

- Bolashak International Scholarship, US\$134,689 (not funded)
Co-Principal Investigator
- 2016-2017 *Service-Learning Grant*
Purdue University Service-Learning Grant Program (four projects funded), US\$2,000
Principal Investigator
- 2014 *Synergy Grant*
Purdue University, College of Education, US\$2,600
Principal Investigator

HONORS & AWARDS

- 2021 *Leadership in Action Award*
Purdue University, Susan Bulkeley Butler Center for Leadership Excellence
<https://www.purdue.edu/butler/documents/2021-Violet-Haas-LJAA-Award.pdf>
- 2019 *Graduate Student and Post-doctoral Fellows Research Award*
Purdue Sigma Xi, Purdue University
- 2016-2017 *Mike Keedy Graduate Fellowship in Mathematics Education*
2015-2016 Purdue University, College of Education
2014-2015 US\$1,000 each year
- 2015 *Annual Graduate Student Education Research Symposium Award*
Purdue University, College of Education