CURRICULUM VITAE – VILMA MESA
May 2022

3119 School of Education, University of Michigan
610 East University Ann Arbor, MI 48109-1259
Ph: + 1 (734) 647 0628
e-mail: vmesa@umich.edu

SHORT BIO

Vilma Mesa is Professor of Education and Mathematics at the University of Michigan, and Faculty Associate at the Center for the Study of Higher and Post-secondary Education at the University of Michigan. She investigates the role that resources play in developing teaching expertise in undergraduate mathematics, specifically at community colleges and in inquiry-based learning classrooms. She has conducted several analyses of instruction and of textbooks and collaborated in evaluation projects on the impact of innovative mathematics teaching practices for students in science, technology, engineering, and mathematics. She is the 2022 recipient of the Association of Women in Mathematics' Loiuse May Award for Contributions to Mathematics Education. She served as Associate Editor for the *Journal for Research in Mathematics Education from* 2000-2004 and is currently serving as associate editor for *Educational Studies in Mathematics*. She was a research associate at "una empresa docente" a research center in Mathematics Education at the University of Los Andes, in Bogotá, Colombia where she co-authored university textbooks for pre-calculus for engineering and probability and statistics for social science majors. She has published over 60 articles and book chapters in mathematics education and raised over $4M in federal funding to support her work. Prior to her career in education, Mesa was a systems programmer for the ministry of finances in Colombia and for the district of Bogotá, and a computing systems advisor for a large construction and hospitality firm in Colombia. She has a B.S. in computer sciences and a B.S. in mathematics from the University of Los Andes in Bogotá, Colombia, and a Master of Arts and a Ph.D. in mathematics education from the University of Georgia.

EDUCATION

Ph.D. 2000	Mathematics Education, University of Georgia, Athens, GA.
M.A. 1996	Mathematics Education, University of Georgia, Athens, GA.
B.S. 1987	Mathematics, University of Los Andes, Bogotá, Colombia.
B.S. 1986	Computer Science, University of Los Andes, Bogotá, Colombia.

PROFESSIONAL EXPERIENCE

2018-present	Professor, Mathematics Education, School of Education; Mathematics Department, College of Literature, Arts, and Sciences, University of Michigan, Ann Arbor.
2015-2018	Associate Professor, Mathematics Department, College of Literature, Arts, and Sciences, University of Michigan, Ann Arbor.
2014-2018	Associate Professor, Mathematics Education, School of Education, University of Michigan, Ann Arbor.

2014-present	Faculty Associate, Center for the Study of Higher and Post-Secondary Education, University of Michigan, Ann Arbor
2007-2014	Assistant Professor, Mathematics Education, School of Education, University of Michigan, Ann Arbor.
2005-2007	Assistant Professor and Research Scientist, Mathematics Education, School of Education, University of Michigan, Ann Arbor.
2003-2005	Instructional Consultant, Science-Technology-Engineering-Mathematics (STEM) disciplines, Center for Research on Learning and Teaching, University of Michigan, Ann Arbor.
2001-2003	Coordinator, Master of Curriculum Development, School of Education, University of Michigan, Ann Arbor.
2000-2002	Postdoctoral Research Fellow, School of Education, University of Michigan, Ann Arbor.
1999-2000	Graduate Research Assistant, College of Education, Michigan State University, East Lansing, Michigan.
1998-1999	Graduate Student Instructor, College of Education, University of Georgia, Athens, GA.
1996-1998	Graduate Research Assistant, College of Education, University of Georgia, Athens, GA.
1996-present	Research Consultant, "una empresa docente," University of Los Andes, Bogotá, Colombia.
1988-1995	Research Scientist, "una empresa docente," University of Los Andes, Bogotá, Colombia.
1985-1995	Lecturer, Mathematics Department, University of Los Andes, Bogotá, Colombia.
1989-1994	Systems Advisor for Strategic Planning, Pedro Gómez y Cía. S. A., Bogotá
1988-1989	Director, Technical Support Group, Centro Distrital de Sistematización y Servicios Técnicos, SISE, Bogotá.
1987-1988	Research Assistant, Centro Distrital de Sistematización y Servicios Técnicos, SISE, Bogotá, Colombia.
1986-1987	System Programmer, Ministry of Finances and Taxes, Bogotá, Colombia.

HONORS AND AWARDS

2022	Outstanding mentor award, Undergraduate Research Opportunity Program, University of Michigan.
2022	Louise Hay Award for contributions to Mathematics Education, bestowed by the Association of Women in Mathematics.
2021	Invited Speaker, Chicago Symposium Series, Excellence in Teaching Mathematics and Science: Research and Practice, University of Chicago, Evanston
2019	Keynote Speaker, Conference of the joint Societies for Mathematics Education, Anjou University, Suwon, South Korea

2019	Invited Panelist, Reimagining Developmental Education, Center for the Analysis of Postsecondary Readiness, New York City, Teacher's College, Columbia University
2020	Invited Address Speaker, Joint Mathematical Meetings, Denver Colorado
2020	Plenary Speaker, International Congress of Mathematical Instruction, Shanghai, China (Congress Postponed to July 2021)
2019	Invited Panelist, The Future of Calculus, MaTRIc, University of Agder, Norway
2019	Invited Panelist, Inter-American Conference in Mathematics Education, Universidad Nacional-Sede Medellín & Universidad de Antioquia, Medellín, Colombia
2019	National Academies of Engineering and Sciences Panel of Developmental Education, Washington, DC
2019	Plenary Speaker, XXII Conference on Research in Undergraduate Mathematics Education, Oklahoma City, OK
2018	Keynote Speaker, Reimagining Mathematics Education, Stevens Institute of Technology, Hoboken NJ, https://reimaginemath.org/
2016	Fulbright Visiting Scholar, University of Santiago de Chile, Chile
2016-2017	Sweetland Writing Fellow, University of Michigan
2010	Evan G. Pattishall and Helen Geib Pattishall Faculty Enhancement Award, School of Education, University of Michigan.
2009	Undergraduate Research Opportunity Program Outstanding Mentor Award, University of Michigan
1999	Doctoral Dissertation Award, Graduate School, University of Georgia.
1998	Graduate School Enhancement Award, University of Georgia.
1997	AERA Grants Program, Institute on Statistical Analysis for Educational Policy.
1997	Del Jones Memorial Scholarship Award, College of Education, University of Georgia.
1995-1996	American Association of University Women International Fellow.

FUNDED GRANTS

2021-2022	Principal Investigator, Mathematics Department, U-M, *Documenting the impact of Inquiry Based Learning Courses at U-M* ($14,334).
2021-2022	Co-PI: *Developing a Network of Faculty Teaching Mathematics to Indigenous Students.* ($8,700; University of Michigan, Office of Educational Outreach). Co-PIs: Belin Tsinnajinnie, Michael Little Crow, Frank Savina, Claire Boeck.
2020-2023	Principal Investigator, *Collaborative Research: Validating Measures of Quality Instruction, AI@CC2.0* ($1,019,460, National Science Foundation). PIs: Irene Duranczyk, Laura Watkins, Patrick Kimani, April Ström, Mary Beiseigel.
2020-2022	Principal Investigator, Supplement to *Collaborative Research: Undergraduate Teaching and Learning in Mathematics with Open Software and Textbooks* (*UTMOST*) ($70,000, National Science Foundation). PIs: Robert Beezer, Thomas Judson, David Farmer, Megan Littrell, and Kent Morrison.

2020-2021	Principal Investigator, Mathematics Department, U-M, *Documenting the impact of Inquiry Based Learning Courses at U-M* ($3,800).
2019-2020	Principal Investigator, *Documenting the impact of Inquiry Based Learning Courses at U-M* ($7,780, Mathematics Department, U-M).
2019-2022	Principal Investigator, *Collaborative Research: Undergraduate Teaching and Learning in Mathematics with Open Software and Textbooks* (*UTMOST*) ($755,409, National Science Foundation). PIs: Robert Beezer, Thomas Judson, David Farmer, Megan Littrell, and Kent Morrison.
2017-2018	Principal Investigator, *Documenting the impact of Inquiry Based Learning Courses at U-M* ($11,850, Mathematics Department, U-M).
2016-2019	PI, *Collaborative Research: Undergraduate Teaching and Learning in Mathematics with Open Software and Textbooks* (*UTMOST*) ($699,000, National Science Foundation, awarded). PIs: Robert Beezer, Thomas Judson, David Farmer, Susan Lynds, Kent Morrison.
2016-2019	PI, *Collaborative Research: Transitioning Learners to Calculus in Community Colleges (TLC3): Advancing Strategies for Success in STEM* ($473,139, National Science Foundation, awarded) PIs: Helen Burn, Luke Wood, Eboni Zamani-Gallaher
2016-2020	Co-Principal Investigator, *Algebra Instruction at Community Colleges: An Exploration of its Relationship with Student Success* (AI@CC) ($665,519, National Science Foundation). PI: Laura Watkins, Co-PIs: April Ström, Irene Duranczyk, Nidhi Kohli.
2016-2017	Principal Investigator, *Documenting the impact of Inquiry Based Learning Courses at U-M* ($8,700, Mathematics Department, U-M).).
2015-2017	Co-Principal Investigator, *Sustainable Instructor Training for Inquiry-Based Learning* ($49,914, Transforming Learning for Third Century-Quick Wins/Discovery Program, U-M). Co-PIs: Stephen DeBacker, Nina White, Ralf Spatzier, Alejandro Uribe, and Gavin Larose.
2015-2016	Principal Investigator, *Documenting the impact of the Inquiry Based Learning Project* ($11,716, Mathematics Department, U-M).).
2014-2015	Principal Investigator, *Documenting the impact of the Inquiry Based Learning Project* ($6,400, Mathematics Department, U-M).).
2013 summer	Principal Investigator, Rackham Summer Student Fellowships ($6,000).
2013-2014	Principal Investigator, *Documenting the impact of the Inquiry Based Learning Project* ($5,500, Mathematics Department, U-M).
2012-2014	Co-Principal Investigator, *Mathematical Association of America, Characteristics of Successful Programs in College Calculus* ($110,988, Mathematical Association of America, NSF subcontract).
2012-2013	Principal Investigator, *Documenting the impact of the Inquiry Based Learning Project* ($4,500, Mathematics Department, U-M).).
2011-2012	Principal Investigator, *Documenting the impact of the Inquiry Based Learning Project* ($4,500, Mathematics Department, U-M).
2011-2013	Principal Investigator, *Learning to Teach College Mathematics with Inquiry Based Learning* ($45,504, Educational Advancement Foundation).

2010-2013	Co-Principal Investigator, *Making Room for Student Thinking: Using automated feedback, video-based professional development, and evidence-based recommendations to improve mathematical discussions.* Co-PIs: Kevin Miller, Kai Cortina, and Mark Thames ($1,440,586, Institute of Educational Sciences).
2009	Principal Investigator, CAREER Award Supplement: *Teaching Mathematics Well in Community Colleges: Studying the Impact of Standards-Based Instructional Reform* ($145,893, National Science Foundation).
2008-2013	Principal Investigator CAREER: *Teaching Mathematics Well in Community Colleges: Studying the Impact of Standards-Based Instructional Reform* ($698,158, National Science Foundation).
2008-2009	Principal Investigator, *Documenting the impact of the Inquiry Based Learning Project* ($14,000, Mathematics Department, U-M).
2007-2008	Principal Investigator ($4,000, Rackham School of Graduate Studies, Student Summer Support).
2007-2009	Principal Investigator: *Documenting the impact of the Inquiry Based Learning in Selected Courses in the Department* ($14,000, Mathematics Department, U-M).
2007-2008	Co-Principal Investigator, *Studying the impact of the Applied Honors Calculus course (Math 156) on the academic performance of College of Engineering students.* Co-PI, Cindy Finelli. ($4,000,College of Engineering, U-M).
2006-2007	Principal Investigator, *Understanding the Role of Resources in Developing Collegiate Teaching Expertise: The Case of Mathematics Textbooks* ($13,800, Office of the Vice-President for Research).
2006	Rackham School of Graduate Studies Faculty Fellowship, *Is this the answer? Is this what I was supposed to do? Control structures in introductory calculus textbooks* ($7,000).
2006	Association of Women in Mathematics. Travel grant ($912).
2001-2002	Principal Investigator, *Teachers' Use of High-School Mathematics Curriculum Materials.* Lecturer's Grant Award ($2,000, Center for Research on Learning and Teaching, U-M).

DECLINED GRANTS

2020-2022	Co-PI: *Collaborative: Supporting and Empowering Two-year College Math Faculty Teaching Indigenous Students Through a Communal Network.* ($207,537; National Science Foundation). Co-PI: Belin Tsinnajinnie.
2020-2023	Co-PI: *Culturally Sustaining and Revitalizing Curriculum Pedagogy, and Identities for Native American College Math Students* ($599,950; W. T. Grant Foundation). Co-PI: Belin Tsinnajinnie.
2020-2024	Co-PI: *Mathematics, Equity & Inquiry-Based Learning (ME&IBL)* ($1,999,261; National Science Foundation). PI: Pat Herbst.
2020-2024	Co-PI: *Collaborative: AI@CC: Improving Student Engagement via EQIPM-based Professional Development (ISEE-PD)* ($643,240; National Science Foundation). PI: Laura Watkins, Co-PIs: April Ström, Patrick Kimani, Irene Duranzyk, Mary Beisiegel.

OTHER RESEARCH COLLABORATIONS

2020-present	*Supporting and empowering two-year college math faculty teaching indigenous students through a communal network*. Vilma Mesa, Belin Tsinnajinnie (Santa Fe Community College), Michael Little-Crow (Arizona State University), Frank Savina (Dana Center, University of Texas, Austin). Continued work to advance a faculty network.
2006-present	*Evaluation of Inquiry-Based Learning (IBL) courses.* PI: Ralph Spatzier, Mathematics Department, University of Michigan. I collect data on instruction in all sections that use IBL in teaching.
2005-2010	*Evaluation of the Douglass Houghton Scholars Program (DHSP).* PI: Robert Megginson, LSA, University of Michigan. I collected data to assess the impact of the program.
2004-2006	*Survey of Factors Influencing Student Selection of Freshman Math Courses.* Co-PI Robert Krasny, Mathematics Department, University of Michigan. I collected and analyzed data to assess the impact of the program.
2000	*Uses of Cases of Mathematics Education to Enhance Instruction, (COMET).* PIs: Margaret Smith, Edward A. Silver, and Mary Kay Stein. I assessed content of case studies.
2001	*Analysis of mathematics portfolios submitted by early adolescence teachers seeking National Board for Professional Teaching Standards (NBPTS) certification.* PIs: Edward A. Silver and Gail P. Baxter. I led the analysis team for this project.
2001	*Research on the uses of curriculum materials in high-school algebra.* I collected data on one high school algebra teacher using traditional methods.
2002	*Validation project of the Connecticut BEST program for certification of mathematics teachers (Connecticut).* PI: Pamela Moss. I rated student portfolios.

PUBLICATIONS – JOURNALS (* INDICATES REFEREED PUBLICATIONS)

1. Lamm, R., **Mesa, V**., Duranczyk, I., Kohli, N., Watkins, L., & Ström, A. (accepted). Construct validation of an instrument that assesses quality of instruction in community college algebra. *Community College Journal of Research and Practice.*

2. Ko, I., **Mesa, V**., Duranczyk, I., Herbst, P., Kohli, N., Ström, A., & Watkins, L. (in press). Understanding the characteristics of mathematical content knowledge for teaching algebra in high schools and community colleges. *International Journal of Mathematical Education in Science and Technology*. https://doi.org/10.1080/0020739X.2021.2006348.

3. **Mesa, V.**; Bakker, A., Venkat, H., Wagner, D., Bikner-Ahsbahs, A., FitzSimons, G. E., Gutiérrez, Á., Meaney, T., Prediger, S., Radford, L., & Van Dooren, W. (in press). Writing reviews: Perspectives from the editors of *Educational Studies in Mathematics*. *Educational Studies in Mathematics*.

4. *Liakos, Y., Gerami, S., **Mesa, V**., Judson, T., & Ma, Y. (in press). How an inquiry-oriented textbook shaped a calculus instructor's planning. *International Journal of Education in Mathematics, Science and Technology*. https://doi.org/10.1080/0020739X.2021.1961171

5. *__Mesa, V.,__ Ma, Y., Quiroz, C., Gerami, S., Liakos, Y., Judson, T., & Chamberlain, L. (2021, 2021/11/01). University instructors' use of questioning devices in mathematics textbooks: an instrumental approach. *ZDM – Mathematics Education, 53*(6), 1299–1311. https://doi.org/10.1007/s11858-021-01296-5

6. *Castro, P., Gómez, P., & **Mesa, V**. (accepted). Prácticas del profesor de matemáticas en la ruralidad durante el confinamiento [Mathematics teacher practices in rural areas during confinement]. *Revista Colombiana de Educación*.

7. *__Mesa, V__., & White, N. J. (in press). Characterizing aspects of reform enacted in calculus 1 lessons. *International Journal of Mathematical Education in Science and Technology*. doi:10.1080/0020739X.2021.1903109

8. *White, N. J., & **Mesa, V**. (2021). A spectrum of instructional variation in one community college calculus program. *MathAmatyc, 12*(2), 21-35.

9. Wagner, D., Bakker, A., Meaney, T., **Mesa, V.**, Prediger, S., & Van Dooren, W. (2020). What can we do against racism in mathematics education research? *Educational Studies in Mathematics*. https://doi.org/https://doi.org/10.1007/s10649-020-09969-w

10. *Gerami, S., Leckrone, L., & **Mesa, V.** (2020). Exploring instructor questions in community college algebra classrooms and its connections to instructor knowledge and student outcomes. *MathAMATYC Educator, 11*(3), 34-39, 67.

11. *__Mesa, V__., Cawley, A., Duranczyk, I., & Watkins, L. (2020). Characterizing classroom interactions to assess the quality of algebra instruction at community colleges. *MathAMATYC Educator, 11*(3), 48-55.

12. *__Mesa, V.,__ & Mali, A. (2020). Studying student actions with dynamic textbooks in university settings: The log as research instrument. *for the learning of mathematics 40*(2), 8-14.

13. *Burn, H., Thrill, C., **Mesa, V.**, Zamani-Gallaher, E., & Wood, J. L. (2020). Mathematics placement, courses, and use of local data in the stem math pathway in African American enrolling colleges. *MathAMATYC Educator*, *11*(3), 4-11.

14. *__Mesa, V.__, Shultz, M., & Jackson, A. (2019). Moving away from lecturing/lecture in undergraduate mathematics: Managing tensions within a coordinated inquiry-based linear algebra course. *International Journal for Research in Undergraduate Mathematics Education, 40(2), 8-14*. 10.1007/s40753-019-00109-1

15. Bakker, A., Cai, J., English, L., Kaiser, G., **Mesa, V**., & Van Dooren, W. (2019). Beyond small, medium, or large: points of consideration when interpreting effect sizes. *Educational Studies in Mathematics, 102*(1), 1-8. doi:10.1007/s10649-019-09908-4

16. *__Mesa, V.__, & Wagner, D. (2019). Behind the door: A critical look at the process of publication in Educational Studies in Mathematics. *Educational Studies in Mathematics. 101*, 301-324.

17. *Peralta, Y., Kohli, N., Ström, A., Duranczyk, I., **Mesa, V.**, & Watkins, L. (2019). A psychometric analysis of the Algebra and Precalculus Concept Readiness assessment. *Journal of Psychoeducational Assessment*. doi:10.1177/0734282919846019

18. *Wladis, C., & **Mesa, V**. (2019). What can happen when community college practitioners lead research projects? The case of CUNY. *Review of Higher Education, 42*(2), 1579-1610.

19. *Burn, H., Zamani-Gallaher, E., **Mesa, V**., & Wood, J. L. (2019). Transitioning learners to calculus: Findings from a national survey of mathematics chairs in two-year colleges by Hispanic-serving institutional designation. *MathAMATYC Educator. 10*(2), 5-13.

20. *Champion, J., & **Mesa, V**. (2018). Pathways to calculus in U.S. high schools. *PRIMUS, 28*(6), 508-527. doi:10.1080/10511970.2017.1315473

21. *Burn, H., & **Mesa, V**. (2017). Not your grandma's lecture: Interactive lecture in the CSPCC two-year cases. *MathAMATYC Educator*, *8*(3), 24-29.

22. *Burn, H., White, N. J., & Mesa, V. (2016). Improving calculus I in community colleges: It takes a [multidisciplinary] village. *Community College Journal of Research & Practice, 40*(6), 550-553.

23. ***Mesa, V.,** & Goldstein, B. (2016). Conceptions of angles, trigonometric functions, and inverse trigonometric functions in college textbooks. *International Journal of Research in Undergraduate Mathematics Education*. doi:10.1007/s40753-016-0042-1

24. Larsen, S., & **Mesa, V.** (2016). Insights about teaching (good and ambitious) from the MAA National Study of Calculus programs. *FOCUS (Mathematical Association of America) 36*(4), 18-20.

25. *Lande, E., & **Mesa, V**. (2016). Instructional decision-making and agency of community college mathematics faculty. *ZDM The International Journal on Mathematics Education, 48*(1), 199-212. doi:10.1007/s11858-015-0736-x

26. *Burn, H., **Mesa, V**., & White, N. (2015). Calculus I in community colleges: Findings from the national CSPCC Study. *MathAMATYC Educator 6*(3), 34-39.

27. ***Mesa, V**. (2014). Using community college students' understanding of a trigonometric statement to study their instructors' practical rationality in teaching. *Journal of Mathematics Education, 7*(2), 95-107.

28. *Gueudet, G., Buteau, C., **Mesa, V**., & Misfeldt, M. (2014). Technologies, resources, and instruments in university mathematics education. *Research in Mathematics Education. 16(2)*, 139-155. doi: 10.1080/14794802.2014.918349

29. *White, N. J., & **Mesa, V**. (2014). Describing cognitive orientation of calculus I tasks across different types of coursework. *ZDM Mathematics Education 46(4)*, 675-690. doi: 10.1007/s1185801405889

30. ***Mesa, V.**, Wladis, C., & Watkins, L. (2014). Research problems in community college mathematics education: Testing the boundaries of K-12 research. *Journal for Research in Mathematics Education 45*, 173-193.

31. *__Mesa, V.__, Celis, S., & Lande, E. (2014). Teaching approaches of community college mathematics faculty: Do they relate to classroom practices? *American Educational Research Journal 52,* 117-151.

32. *Bressoud, D. M., Carlson, M., __Mesa, V.__, & Rasmussen, C. L. (2013). The calculus student: Insights from the MAA national study. *International Journal of Mathematical Education in Science and Technology*. doi: 10.1080/0020739X.2013.798874

33. *__Mesa, V.__, Suh, H., Blake, T., Whittemore, T. (2013). Examples in college algebra textbooks: Opportunities for students' learning. *Problems, Resources, and Issues, in Undergraduate Mathematics Studies, 23* (1), 76-105.

34. Sitomer, A., Ström, A., __Mesa, V.__, Duranczyk, I., Nabb, K., Smith, J., & Yannotta, M. (2012). Moving from anecdote to evidence: A proposed research agenda in community college mathematics education. *MathAMATYC Educator, 4*(1), 34-39.

35. *__Mesa, V.__ (2012). Achievement goal orientation of community college mathematics students and the misalignment of instructors' perceptions. *Community College Review, 40*(1), 46-74. DOI: 10.1177/0091552111435663

36. *__Mesa, V.__, & Griffiths, B. (2012). Textbook mediation of teaching: An example from tertiary mathematics instructors. *Educational Studies in Mathematics, 79* (1), 85-107.

37. *__Mesa, V.__ (2011). Similarities and differences in classroom interaction between remedial and college mathematics classrooms in a community college. *Journal of Excellence in College Teaching, 22* (4) 21-56.

38. Finelli, C. J., Bergom, I., & __Mesa, V.__ (2011). Student teams in the engineering classroom and beyond: Setting up students for success. *CRLT Occasional Papers, 29*, 1-12.

39. *__Mesa, V.__, & Herbst, P. (2011). Designing representations of trigonometry instruction to study the rationality of community college teaching. *ZDM International Journal of Mathematics Education 43*, 41-52.

40. *Meyer, J., Elsey, M., & __Mesa, V.__ (2010). Students' perceptions of lesson objectives in introductory mathematics courses taught by teaching assistants. *Studies in Graduate and Professional Student Development 13*, 103-121.

41. *__Mesa, V.__ (2010). Examples in textbooks: Examining their potential for developing metacognitive knowledge. *MathAMATYC, 2*(1), 50-55.

42. *__Mesa, V.__, & Chang, P. (2010). The language of engagement in two highly interactive undergraduate mathematics classrooms. *Linguistics and Education, 21*, 83-100.

43. *__Mesa, V.__ (2010). Student participation in mathematics lessons taught by seven successful community college instructors. *Adults Learning Mathematics 5*, 64-88.

44. *__Mesa V__. (2010). Strategies for controlling the work in mathematics textbooks for introductory calculus. *Research in Collegiate Mathematics Education 16, 235-265.*

45. *Charalambous, C., Delaney, S., Hsu, A., & **Mesa, V.** (2010). The addition and subtraction of fractions in the textbooks of three countries: A comparative analysis. *Mathematical Thinking and Learning, 12* (2), 117-151.

46. Elsey, M., Meyer, J., **Mesa, V.** (January, 2010). *Teaching time savers: Thinking about activities that make every minute count. MAA Focus*, p. 12

47. ***Mesa, V.**, Jaquette, O., & Finelli, C. (2009). Measuring the impact of a course on students' success. *Journal of Engineering Education, 98*(3), 349-359.

48. *Silver, E. A., **Mesa, V.**, Morris, K., Star, J., & Benken, B., (2009). Teaching for understanding: An analysis of mathematics lessons submitted by teachers seeking NBPTS certification. *American Educational Research Journal, (46)*, 501-531.

49. **Mesa, V.** (2008). Solving problems on functions: The role of the graphing calculator. *Revista PNA, 2*(3), 109-135.

50. ***Mesa, V.** (2007). Solving problems on functions: The role of the graphing calculator. *Focus on learning problems in mathematics 29,* (3), 30-54.

51. **Mesa, V.** (2004). JRME in the global village: Parlez vous français? Habla ud. Español? *Journal for Research in Mathematics Education*, *35*, 2-4.

52. ***Mesa, V.** (2004). Characterizing practices associated with functions in middle school textbooks: An empirical approach. *Educational Studies in Mathematics, 56*, 255-286.

53. **Mesa, V.**, & Valero, P. (2003). Two doctoral programs in mathematics education. *Revista EMA: Investigación e innovación en educación matemática, 9*, 10-27.

54. **Mesa, V.** & Valero, P. (2001). Dos experiencias de formación doctoral: Objetivos, disciplinariedad, enfoques y estrategias [Two experiences in doctoral preparation: Objectives, disciplinarity, perspectives, and strategies]. In L. Rico (Ed.) *Iniciación a la investigación en didáctica de la matemática: Homenaje al profesor Mauricio Castro* (pp. 39-56). University of Granada: Departamento de Didáctica de la Matemática.

55. **Mesa, V.** (2000). De viva voz: Instantes en el quehacer docente de maestros [With their own voice: Snapshots of teachers' daily practice]. [Review of the book *Implementing standards-based mathematics instruction*, by M. K. Stein, M. S. Smith, M. Henningsen, & E. A. Silver]. *Revista Educación Matemática, 6*, 56-68.

56. **Mesa, V.** (1998). What activities would I like to promote in a doctoral program? In T. Lingefjärd & G. Dahland (Eds.), *Research in mathematics education: A report from a follow-up conference after PME 1997* (pp. 73-79). Gothenburg University: Gothenburg.

57. **Mesa, V.** & Valero, P. (1998). Dilemas de la formación de investigadores en educación matemática [Challenges for the preparation of researchers in mathematics education]. *Revista Educación Matemática, 3,* 133-146.

58. **Mesa, V. M**. (1995). Lo bueno, lo malo y lo feo de un curso de precálculo con calculadoras gráficas [The good, the bad, and the ugly of a precalculus course using graphing calculators]. *Revista Educación Matemática, 1*, 115-124.

PUBLICATIONS – CHAPTERS IN EDITED BOOKS

1. Bozkurt, G., Abboud, M., Bretscher, N., **Mesa, V.**, & Simsek, A. (under review). Theorising teachers' practises with digital technologies within mathematical domains and contexts. In B. Pepin, G. Gueudet, & J. Choppin (Eds.), *Handbook of digital (curriculum) resources in mathematics education*. Springer.

2. Johnson, H. L., Olson, G., McClintock, E., **Mesa, V.**, & Rasmussen, C. (under review). Theorizing institutional change in relationship to teaching and learning with digital resources. In B. Pepin, G. Gueudet, & J. Choppin (Eds.), *Handbook of digital (curriculum) resources in mathematics education*. Springer.

3. **Mesa, V.** (in press). Resources and orientations towards lecture notes design by post-secondary instructors. In R. Biehler, G. Gueudet, M. Liebendörfer, C. Rasmussen, & C. Winsløw (Eds.), *Practice-oriented research in tertiary mathematics education: New directions*. Springer.

4. Mali, A., Gerami, S., Ullah, A., & **Mesa, V**. (2019). Teacher questioning in problem solving in community college algebra classrooms. In P. Felmer, P. Lijedahl, & B Koichu (Eds.), *Problem Solving in Patagonia* (pp.317-335). Dordrecth, The Netherlands: Springer.

5. **Mesa, V.** (2017). Mathematics education at public two-year colleges. In J. Cai (Ed.), *First compendium for research in mathematics education* (pp. 949-967). Reston, VA: National Council of Teachers of Mathematics.

6. **Mesa, V**., & Burn, H. (2016). The calculus curriculum in the National Study of University Calculus in the USA. In E. Castro, E. Castro, J. L. Lupiañez, J. F. Ruíz, & M. Torralbo (Eds.), *Investigación en educación matemática: Homenaje al profesor Luis Rico* [Investigations in mathematics education: Professor Luis Rico's Festschrift] (pp. 61-73). Granada, Spain: Comares.

7. **Mesa, V.**, & Cawley, A. (2016). Faculty knowledge of teaching in inquiry-based learning mathematics. In N. Vondrova & K. Krainer (Eds.), *Proceedings of the 9th Conference of European Researchers in Mathematics Education* (pp. 2194-2200). Prague: Charles University in Prague.

8. **Mesa, V.**, Burn, H., & White, N. (2015). Good teaching of Calculus I. In D. M. Bressoud, V. Mesa, & C. L. Rasmussen (Eds.), *Insights and recommendations from the MAA National Study of College Calculu*s (pp. 83-91). Washington, DC.

9. Burn, H., & **Mesa, V.** (2015). The calculus I curriculum. In D. M. Bressoud, V. Mesa, & C. L. Rasmussen (Eds.), *Insights and recommendations from the MAA National Study of College Calculus*. (pp. 45-57). Washington, DC.

10. **Mesa, V.** (2015). *Ruminations on the generated curriculum and reform in community college mathematics: An essay in honor of Jeremy Kilpatrick*. In E. A. Silver & C. Keitel, (Eds.) *Pursuing excellence in mathematics education: A festschrift to honor Jeremy Kilpatrick* (pp. 95-110). Dordrecht, The Netherlands: Springer.

11. **Mesa, V.**, & Lande, E. (2014). Methodological considerations in the analysis of classroom interaction in community college trigonometry. In Y. Li, E. A. Silver & S. Li (Eds.), *Transforming math instruction: Multiple approaches and practices* (pp. 475-500). The Netherlands: Springer.

12. **Mesa, V.**, & Leckrone, L. (2014). Assessment of mathematics teacher knowledge. In S. Lerman (Ed.), *Encyclopedia of mathematics education* (pp. 48-51). Dordrecht, The Netherlands: Springer.

13. **Mesa, V.**, Gómez, P., & Cheah, U. (2013). Impact of international studies of student achievement on mathematics teaching and learning. In M. A. Clements, A. Bishop, C. Keitel, J. Kilpatrick & F. Leung (Eds.), *Third international handbook of mathematics education.* (pp. 861-900) New York: Springer.

14. Gómez, P., **Mesa, V.**, & González, M. J. (2011). Negotiation of meaning in outside of the classroom group assignments. In S. Sbaragli (Ed.), *La matematica e la sua didattica, quarant'anni di impegno [Mathematics and its didactics, forty years of commitment]* (pp. 111-114). Bologna: University of Bologna.

15. **Mesa, V.**, & Megginson, R. (2011). Equity and quality in a program for under-represented students at an elite university. In B. Atweh, M. Graven, W. Secada & P. Valero (Eds.), *Mapping equity and quality agendas in mathematics education,* (pp. 569-584). New York: Springer.

16. Silver, E. A., & **Mesa, V.** (2011). Highly accomplished teachers of mathematics and effective instructional practice: Probing the intersection. In Y. Li & G. Kaiser, *Expertise in mathematics instruction: An international perspective*, (pp. 63-84). New York: Springer.

17. Kilpatrick, J., **Mesa, V.**, & Sloan, F. (2007). U.S. algebra performance viewed internationally. In T. Loveless (Ed.), *Lessons learned: What international assessments tell us about math achievement* (pp. 85-126). Washington, DC: Brookings Institution Press.

18. **Mesa V**., & Kilpatrick, J. (1998, September). *The content of mathematics education around the world.* Paper prepared for the second committee meeting of the National Academy of Sciences' project on Mathematics and Science Education Around the World: Continuing to Learn from TIMSS, Woods Hole, MA.

PUBLICATIONS – BOOKS

1. Bressoud, D., **Mesa, V.**, Rasmussen, C. (Eds.)(2015). *Insights and recommendations from the MAA National Study of College Calculus.* Washington, DC: Mathematical Association of America

2. **Mesa, V.** (2009). *Conceptions of function in textbooks from eighteen countries: An empirical analysis of middle school textbooks from the Third International Mathematics and Science Study*. Saarbrücken, Germany: VDM Verlag Dr Müller Atkiengesellschaft.

PUBLICATIONS - TEXTBOOKS

1. Gómez, P., & **Mesa, V.** M. (Eds.) (1996). *Situaciones problemáticas en pre-cálculo* [Problematic situations in Pre-calculus]. Mexico & Bogotá: Editorial Iberoamérica & una empresa docente.

2. Perry, P., **Mesa, V.**, Fernández, F. & Gómez, P. (1996). *Matemáticas, azar, sociedad: Conceptos básicos de estadística.* [Mathematics, chance, and society: Basic statistics concepts]. Mexico & Bogotá: Editorial Iberoamérica & una empresa docente.

3. Fernández, F., **Mesa, V.**, Gómez, P., & Perry, P. (1993). *Estadística y sociedad* [Statistics and society]. Bogotá: una empresa docente.

MANUSCRIPTS UNDER REVIEW

1. Gerami, S., **Mesa, V**., Quiroz, C., & Chamberlain, L. (2020). Textbook for inquiry teaching: Case of active calculus. [Manuscript under review] *International Journal of Education in Mathematics, Science and Technology*.

2. Watkins, L., Rohloff, C., Kohli, N., Duranczyk, I., Mesa, V., & Ström, A. (under review). Establishing the connection between instruction and student performance in community college algebra courses. Glendale Community College, University of Michigan, Chandler-Gilbert Community College (Ed.). Glendale, Arizona.

MANUSCRIPTS IN PROGRESS

1. Castro, E., Mali, A., & **Mesa, V.** (2020). University students' engagement with digital mathematics textbooks: A case of linear algebra. (*International Journal of Science and Mathematics Education*).

2. Gerami, S., & **Mesa, V**. (2019). Investigating instructors' perceptions of IBL: A systemic functional linguistic approach. (*PRIMUS*).

3. Gerami, S., & **Mesa, V**. (2019). Investigating instructors' and students' roles in IBL: A systemic functional linguistic approach. (*International Journal for Research in Undergraduate Mathematics Education*).

TECHNICAL REPORTS

1. Du, T., **Mesa, V**. (2022). *Inquiry Based Learning Project, Winter 2022*. University of Michigan, Ann Arbor, MI.

2. Du, T., **Mesa, V**. (2022). *Inquiry Based Learning Project, Math 217, Winter 2022*. University of Michigan, Ann Arbor, MI.

3. Lambert, C.; Hussain, M; Du, T.; **Mesa, V**. (2021). *Inquiry Based Learning Project, Math 217, Fall 2021*. University of Michigan, Ann Arbor, MI.

4. Lambert, C.; Hussain, M; Du, T.; **Mesa, V**. (2022). *Inquiry Based Learning Project, Fall 2021*. University of Michigan, Ann Arbor, MI.

5. Linderman, B., Hudzik, J., & **Mesa, V.** (2021). *Inquiry Based Learning Project, Fall 2020*. University of Michigan, Ann Arbor, MI.

6. Linderman, B., & **Mesa, V.** (2020). *Inquiry Based Learning Project, Winter 2020*. University of Michigan, Ann Arbor, MI.

7. **Mesa, V**., Liakos, Y, Gerami, S., Quiroz, C., Boeck,. C. & Chamberlain, L. (2020). *UTMOST: Final report for participating faculty, Winter 2020*. University of Michigan, Ann Arbor, MI.

8. **Mesa, V**., Liakos, Y, Gerami, S., Quiroz, C., & Chamberlain, L. (2020). *UTMOST: Final report for participating faculty, Fall 2019*. University of Michigan, Ann Arbor, MI.

9. **Mesa, V**., Liakos, Y, Gerami, S., & Chamberlain, L. (2019). *UTMOST: Final report for participating faculty, Spring 2019*. University of Michigan, Ann Arbor, MI.

10. Ma, Y., & **Mesa, V.** (2020). UTMOST 3.0 *Instructor Survey Fall 2019*. (Technical Report) University of Michigan, Ann Arbor MI.

11. Linderman, B., & **Mesa, V.** (2019). *Inquiry Based Learning Project: Mathematics 217, Linear Algebra, Fall 2019*. University of Michigan, Ann Arbor, MI.

12. Jaaber, M., Pota, T., & **Mesa, V.** (2019). *Inquiry Based Learning Project: Math 175, 285, 351, 385, 412, 431, 486, 490, 497 Fall 2019*. University of Michigan, Ann Arbor, MI.

13. Evans, C., & **Mesa, V.** (2019). *Instructor lesson log report, Spring 2018 videos. Algebra Instruction at Community Colleges*. Technical report. University of Michigan, Ann Arbor, MI.

14. Evans, C., Giorgio, K., & **Mesa, V.** (2018). *Instructor lesson log report, Fall 2017 videos. Algebra Instruction at Community Colleges*. Technical report. University of Michigan, Ann Arbor, MI.

15. Arnay, M. F., & **Mesa, V.** (2018). *Inquiry Based Learning Project: Math 175, 285, 351, 385, 412, 431, 486, 490, 497 Fall 2018*. University of Michigan, Ann Arbor, MI.

16. Bragg, J., & **Mesa, V.** (2018). *Inquiry Based Learning Project: Mathematics 217, Linear Algebra.* University of Michigan, Ann Arbor, MI.

17. **Mesa, V**., & Mali, A. (2018). *UTMOST: Final report for participating faculty, Spring 2018*. University of Michigan, Ann Arbor, MI.

18. **Mesa, V**., & Mali, A. (2018). *UTMOST: Final report for participating faculty, Fall 2017*. University of Michigan, Ann Arbor, MI.

19. Gerami, S. & **Mesa, V.** (2018). *UTMOST end of term test of student knowledge, sections 421005, 411008, 311012, 312010, 311009, and 311011.* (Technical Reports) University of Michigan, Ann Arbor MI.

20. Gerami, S. & **Mesa, V.** (2018). *UTMOST beginning of term test of student knowledge, sections 421005, 411008, 311012, 312010, 311009, and 311011.* (Technical Reports) University of Michigan, Ann Arbor MI.

21. Gerami, S. & **Mesa, V.** (2018). *UTMOST end of term test of student knowledge, sections 211008, 222007, and 221005*. (Technical Reports) University of Michigan, Ann Arbor MI.

22. Gerami, S. & **Mesa, V.** (2018). *UTMOST beginning of term test of student knowledge, sections 211008, 222007, and 221005*. (Technical Reports) University of Michigan, Ann Arbor MI.

23. TenBrink, J., & **Mesa, V.** (2018). *Inquiry Based Learning Project, Math 217 Winter 2018 report*. Technical Report. University of Michigan, Ann Arbor, MI.

24. Gerami, S., & **Mesa, V.** (2017). *Addendum to the observation protocol: Version 5.2: University of Michigan Employees*. University of Michigan, Ann Arbor, Michigan.

25. Suárez-Román, F., & **Mesa, V.** (2017). *Inquiry Based Learning Project, Winter 2018 report*. Technical Report. University of Michigan, Ann Arbor, MI.

26. TenBrink, J., & **Mesa, V.** (2017). *Inquiry Based Learning Project, Math 217 Fall 2017 report*. Technical Report. University of Michigan, Ann Arbor, MI.

27. Suárez-Román, F., & **Mesa, V.** (2017). *Inquiry Based Learning Project, Fall 2017 report*. Technical Report. University of Michigan, Ann Arbor, MI.

28. Niglas, K., & **Mesa, V.** (2017). *Inquiry Based Learning Project, Winter 2017 report*. Technical Report. University of Michigan, Ann Arbor, MI.

29. Niglas, K., & **Mesa, V.** (2016). *Inquiry Based Learning Project, Fall 2016 report*. Technical Report. University of Michigan, Ann Arbor, MI.

30. Niglas, K., & **Mesa, V.** (2016). *Inquiry Based Learning Project, Math 217, Fall 2016 report*. Technical Report. University of Michigan, Ann Arbor, MI.

31. Jackson, A., & **Mesa, V.** (2016). *Inquiry Based Learning Project: Mathematics 175, 310, 351, 389, 486, 489-Winter 2016*. Technical Report. University of Michigan, Ann Arbor, MI.

32. Jackson, A., & **Mesa, V.** (2015). *Inquiry Based Learning Project: Mathematics 175, 310, 351, 389, 486, 489-Fall 2015*. Technical Report. University of Michigan, Ann Arbor, MI.

33. Jackson, A., & **Mesa, V.** (2015). *Inquiry Based Learning Project: Mathematics 175, 310, 351, 389, 486, 489-Winter 2015*. Technical Report. University of Michigan, Ann Arbor, MI.

34. Jackson, A., & **Mesa, V.** (2014). *Inquiry Based Learning Project: Mathematics 175, 217, 285, 351, 385, 431, 497, 498-Fall 2014*. Technical Report. University of Michigan, Ann Arbor, MI.

35. Hsu, E., **Mesa, V.**, & The Calculus Case Collective. (2014). *Synthesizing measures of institutional success*. CSPCC-Technical Report #1. Mathematical Association of America. Washington D.C.

36. Monroe, X., & **Mesa, V.** (2013). *Inquiry Based Learning Project: Summary of focus groups, Winter 2014*. Technical Report. University of Michigan, Ann Arbor, MI.

37. Monroe, X., & **Mesa, V.** (2013). *Inquiry Based Learning Project: Summary of focus groups, Fall 2013*. Technical Report. University of Michigan, Ann Arbor, MI.

38. Bull, R., & **Mesa, V.** (2013). *Inquiry Based Learning Project: Summary of focus groups, Winter 2013*. Technical Report. University of Michigan, Ann Arbor, MI.

39. Bull, R., & **Mesa, V.** (2012). *Inquiry Based Learning Project: Summary of focus groups, Fall 2012*. Technical Report. University of Michigan, Ann Arbor, MI.

40. **Mesa, V.**, Ström, A., Sitomer, A., & Yannota, M. (2012). *Moving from anecdote to evidence: The need for a research agenda in community college mathematics education*. Ann Arbor: University of Michigan, DeepBlue Collection.

41. Marshall, S., **Mesa, V.**, & Whittemore, T. (2012). *Inquiry Based Learning Project: Summary of focus groups, Winter 2012*. Technical Report. University of Michigan, Ann Arbor, MI.

42. Marshall, S., **Mesa, V.**, & Whittemore, T. (2011). *Inquiry Based Learning Project: Summary of focus groups, Fall 2011*. Technical Report. University of Michigan, Ann Arbor, MI.

43. Lattuca, L. R., & **Mesa, V.** (2011). *Report of the external evaluation team, Year 2 NSF-PRISM: Mathematics in Life Science, University of Missouri.* Ann Arbor, MI: University of Michigan.

44. Whittemore, T., & **Mesa, V.** (2011). *Inquiry Based Learning Project: Summary of focus groups, Winter 2011* (Technical Report). Ann Arbor, MI: University of Michigan.

45. Whittemore, T., & **Mesa, V.** (2010). *Inquiry Based Learning Project: Summary of focus groups, Fall 2010* (Technical Report). Ann Arbor, MI: University of Michigan.

46. **Mesa, V.**, & Whittemore, T. (2011). *Inquiry Based Learning Project: Mathematics 176, 351, 389, 489, Winter 2010* (Technical Report). Ann Arbor, MI: University of Michigan.

47. **Mesa, V.**, & Whittemore, T. (2010). *Inquiry Based Learning Project: Mathematics 176, 351, 389, 489, Winter 2010* (Technical Report). Ann Arbor, MI: University of Michigan.

48. **Mesa, V.**, & Cheng, A. (2009). *Inquiry Based Learning Project at the Math Department, University of Michigan: Analysis of data from Fall 2004 to Winter 2008* (Technical Report). Ann Arbor, MI: University of Michigan.

49. **Mesa, V.** (2009). *Inquiry Based Methods Project: Mathematics 175, 351, and 385, Fall 2008*. University of Michigan.

50. **Mesa, V.** (2008). *Evaluation of the Douglass Houghton Scholars Program: Second year report.* Ann Arbor: University of Michigan.

51. **Mesa, V.** & Cheng, A. (2008). *Inquiry Based Methods Project: Mathematics 175 and 385, Fall 2007*. University of Michigan.

52. **Mesa, V.** (2007). *Evaluation of the Douglass Houghton Scholars Program: First year report.* Ann Arbor: University of Michigan.

53. **Mesa, V.**, & Megginson, R. (2006). *Evaluation of the Douglass Houghton Scholars Program* (Project Description). Ann Arbor: University of Michigan.

54. Krasny, R., & **Mesa, V.** (2006). *Survey of factors influencing student selection of freshman math courses: Follow-up*. Ann Arbor: University of Michigan

55. Krasny, R., & **Mesa, V.** (2005). *Survey of factors influencing student selection of freshman math courses at the University of Michigan*. Ann Arbor: University of Michigan.

PAPERS IN CONFERENCES OR IN CONFERENCE PROCEEDINGS

1. Gerami, S., Hu, D. Q., & **Mesa, V.** (2022, July). *Student challenges in abstract algebra: How do instructors react and respond?* The 45th Conference of the International Group for the Psychology of Mathematics Education, Alicante, Spain.

2. Hu, D. Q., Gerami, S., & Mesa, V. (2022, April). *Student challenges in linear and abstract algebra: what do students and their instructors do?* Undergraduate Research Opportunity Program (UROP) Symposium, University of Michigan, Ann Arbor.

3. Lim, S. Q., Gerami, S., & **Mesa, V**. (2022, April). *Students' and instructors' use of dynamic textbooks in undergraduate mathematics courses: A study of self-narrations with viewing data.* Undergraduate Research Opportunity Program (UROP) Symposium, University of Michigan, Ann Arbor.

4. Hao, X., Bursley-Sanford, L., & **Mesa, V.** (2022, April). *Student-teacher interactions in dynamic textbooks: Effects on utilization schemes*. Undergraduate Research Opportunity Program Spring Research Symposium, Ann Arbor, University of Michigan.

5. Boeck, C., & **Mesa, V**. (2022, April). *The discourse of a good student in mathematics syllabi and implications for equity*. Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, CA.

6. Kanwar, P., & **Mesa, V**. (2022, February). *Mapping student real-time viewing of dynamic textbooks to their utilization schemes of questioning devices* Conference of the European Research in Mathematics Education, Bolzano, Italy.

7. Boeck, C.; Beisiegel, M.; **Mesa, V.**, & The VMQI AI@CC 2.0 Research Team. (2022, February). Documenting equitable practices in community college aglebra instruction. Poster submitted to the Annual Conference of the SIG-MAA on RUME, Boston, MA

8. Lim, D., Akoto, B., Duranczyk, I., & the VMQI Research Team. (2022, February). Algebra instruction at comunity colleges: Validating measures of quality instruction [Poster presentation]. 2022 Conference on Research in Undergraduate Mathematics Education, Boston, MA.

9. **Mesa, V.**; Beisiegel, M.; Durancyk, I.; Kimani, P.; & The VMQI AI@CC 2.0 Research Team. (2021, October). *Validating Measures of Quality Instruction for Community College Algebra Instruction*. Presentation at the 2021 Annual AMATYC Conference. Phoenix Arizona.

10. **Mesa, V.,** & Gerami, S. (2021, July). *Teaching and learning with dynamic textbooks: studying student use at scale*. Paper to be presented at the International Congress of Mathematics Education, Shanghai.

11. Gerami, S., **Mesa, V.**, & Liakos, Y. (2021, July). *Using an inquiry-oriented calculus textbook to promote inquiry: A case in university calculus*. Paper presented at the 44th Conference of the International Group for the Psychology of Mathematics Education, Technion Institute of Technology, Haifa, Israel.

12. Hemrattaphan, Y., Liakos, Y., Quiroz, C., & **Mesa, V.** (2020). *How do students engage with their math textbooks? Development of a qualitative instrument to analyze students' responses about textbook use.* Paper presented at the U-M UROP Spring Research Conference, Ann Arbor, MI.

13. **Mesa, V**., Lamm, R., Watkins, L., Duranczyk, I., Ström, A., & Kohli, N. (2020). *A confirmatory factor analysis of EQIPM, a video coding protocol to assess the quality of community college algebra instruction*. Paper to be presented at the 23rd Annual Conference on Research in Undergraduate Mathematics Education, Boston, MA.

14. **Mesa, V.,** Gerami, S., & Liakos, Y. (2020). *Exploring the relationship between textbook format and student outcomes in undergraduate mathematics courses.* Paper presented at the 23rd Annual Conference on Research on Undergraduate Mathematics Education, Boston, MA.

15. Gerami, S., & **Mesa, V.** (2020). *Investigating instructors' perceptions of IBL: A systemic functional linguistic approach.* Paper presented at the 23rd Annual Conference on Research on Undergraduate Mathematics Education, Boston, MA.

16. **Mesa, V.**, Liakos, Y., & Boelkins, M. (2019, August). Designing textbooks with enhanced features to increase student interaction and promote instructional change. In J. Monaghan, T. Dreyfus, & E. Nardi (Eds.), *Calculus in Upper Secondary and University Mathematics* (pp. 104-107). Kristiansand, Norway: MatRIC, University of Agder.

17. **Mesa, V.**, Liakos, Y., & Zhang, H. (2019, September). *Textbook content in use: Manual and machine coding.* Paper presented at the International Conference of the Mathematics Textbook, Padeborn, Germany.

18. Cochran, P. & **Mesa, V.** (2019, April). *Database, analysis, processing with python, and reconciliation (DAPPR for the AI@CC project).* Poster presented at the U-M UROP Spring Research Conference, Ann Arbor, MI.

19. Boeck, C., & **Mesa, V.** (2019, April). *Promoting equity through transparency of institutional and pedagogical practices in the DPC2 pathway.* Paper presented at the American Educational Association Annual Meeting, Toronto, CA.

20. **Mesa, V**. (2019, March). *Instructional approaches and their connection to equity and access in mathematics classrooms.* Paper presented at the Council for the Study of Community Colleges, San Diego.

21. **Mesa, V.**, Mali, A., & Castro, E. (2019, February). *University student use of dynamic textbooks: An exploratory analysis*. Poster presented at the Eleventh Congress of the European Society of Research in Mathematics Education (CERME), Utrecht, The Netherlands.

22. **Mesa, V**., Duranczyk, I., Watkins, L., & AI@CC Research Group. (2019, February). *The structure of EQIPM, a video coding protocol to assess the quality of community college algebra instruction.* Paper presented at the Eleventh Congress of the European Society for Research in Mathematics Education, Utrecht, The Netherlands.

23. Mali, A., Cawley, A., Duranczyk, I., **Mesa, V**., Strom, A., & Watkins, L. (2019, February). *Identifying sense-making in algebra instruction at U.S. post-secondary colleges.* Paper presented at the Eleventh Congress of the European Society for Research in Mathematics Education, Utrecht, The Netherlands.

24. Mali, A., & **Mesa, V.** (2018, July). *Instructor creation of lecture notes with digital textbooks*. Paper presented at the International Conference on Psychology of Mathematics Education, Umea, Sweden.

25. Mali, A., & **Mesa, V**. (2018, June). *Instructor and student uses of technologically enhanced textbooks*. Paper presented at the First Congress of Greek Mathematicians, Athens, Greece.

26. Mali, A., & **Mesa, V**. (2018, February). *Dynamic textbooks and their use in teaching linear and abstract algebra*. Paper presented at the Annual Conference of the Special Interest Group in Research in Undergraduate Mathematics Education San Diego, CA.

27. Mali, A., & **Mesa, V.** (2018, January). *Instructors' and students' uses of dynamic textbooks: What is new?* Paper presented at the Joint meeting of the Mathematical Association of America and the American Mathematical Society, San Diego, CA.

28. Cawley, A., Duranczyk, I., Mali, A., **Mesa, V**., Ström, A., Watkins, L., . . . Lim, D. (2018, July). *An innovative qualitative video analysis instrument to assess the quality of post-secondary algebra instruction*. Paper presented at the International Conference on Psychology of Mathematics Education, Umea, Sweden.

29. Cawley, A., Mali, A., & **Mesa, V.** (2018, July). *Instructor creation of lecture notes with digital textbooks*. Paper presented at the International Conference on Psychology of Mathematics Education, Umea, Sweden.

30. **Mesa, V.**, & Mali, A. (2017, May). *Uses of dynamic textbooks in undergraduate mathematics classrooms*. Paper presented at the II International Conference on Mathematics Textbooks, Rio de Janeiro.

31. Diaz, L., Ullah, A., **Mesa, V.,** & Mali, A. (2017, April). *Classroom interactions modeled by question authenticity in algebra instruction at community colleges*. Poster presented at the UROP Research Conference, Ann Arbor, MI.

32. Duranczyk, I., **Mesa, V.,** Kohli, N., Ström, A., & Watkins, L. (2017, February). *Measuring gains in knowledge within Algebra Instruction at Community Colleges: Assessing the efficacy of the Algebra*

Pre-Calculus Readings (APCR) test. Paper presented at the 10th Congress of the European Society for Research in Mathematics Education, Dublin, Ireland.

33. **Mesa, V.,** Duranczyk, I., Kohli, N., Ström, A., Watkins, L., & Mali, A. (2017, February). Poster presented at the SIGMAA Research in Undergraduate Mathematics Education Conference, San Diego, CA.

34. **Mesa, V.**, & White, N. (2016, April). *The National Study of Calculus: The instruction students experience at 18 selected institutions*. Paper presented at the Conference of the 50th Anniversary of the Mathematics Education Program, Athens, GA.

35. **Mesa, V.**, White, N., Sobek, S., & Burn, H. (2016, April). *The instruction students experience: The National Study of Calculus*. Paper presented at the NCTM Research Conference, San Francisco, CA.

36. **Mesa, V**., White, N., & Sobek, S. (2015, December). *Calculus I teaching: What can we learn from snapshots of lessons from 18 successful institutions?* Paper presented at the Didactics of mathematics in higher education as a scientific discipline, Hanover, Germany.

37. **Mesa, V.**, White, N., & Sobek, S. (2015, November). *Calculus I teaching: What can we learn from snapshots of lessons from 18 successful institutions?* Paper presented at the Annual Conference of the Association for the Study of Higher Education, Denver, CO.

38. **Mesa, V.,** White, N., & Sobek, S. (2015). *Calculus I teaching: What can we learn from snapshots of lessons from 18 successful institutions?* Paper presented at the Annual Conference of the Psychology of Mathematics Education-North American Chapter, East Lansing, MI.

39. McAlister-Raeburn, M., & **Mesa, V.** (2015). *Normativity and autonomy in instructional decision-making*. Paper presented at the Undergraduate Research Opportunity Program Spring Research Symposium University of Michigan, Ann Arbor.

40. LaFollete, K., **Mesa, V.**, & Cawley, A. (2015). *Inquiry-Based Learning in Mathematics Classrooms: Finding Solutions to Common Concerns.* Paper presented at the UROP Spring Symposium, University of Michigan, Ann Arbor, MI.

41. Truong, K., **Mesa, V**., & Cawley, A. (2015). *Learning to teach with Inquiry-Based Learning.* Paper presented at the UROP Spring Symposium, University of Michigan, Ann Arbor, MI.

42. **Mesa, V**. (April, 2015). *Analysis of student conceptions of inverse trigonometric functions*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago.

43. **Mesa, V.**, Burn, H., White, N. (April, 2015). *Characteristics of Successful Programs in College Calculus project: Findings from the two-year colleges case studies.* Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

44. **Mesa**, V., & Cawley, A. (February, 2015). *Faculty knowledge of teaching in inquiry-based learning mathematics.* Paper presented at the Ninth Congress of European Research in Mathematics Education, Prague, Czech Republic.

45. Burn, H., **Mesa, V.**, White, N. (November, 2014). The MAA-CSPCC study: Two-year colleges case study findings. *Paper presented at the Annual AMATYC Conference*, Nashville, TN.

46. **Mesa, V.**, Burn, H., White, N. (October, 2014). Characteristics of Successful Programs in College Calculus project: Findings from the two-year colleges case studies. *Paper presented at the Transforming Institutions in STEM Conference*, Indianapolis, IN.

47. **Mesa, V.**, Burn, H., White, N. (October, 2014). "Good teaching" in the national study of Calculus project. *Paper presented at the Annual MichMATYC Conference*, Benton Harbor, MI.

48. **Mesa, V.**, Cawley, A., & Ko, I. (June, 2014). Inquiry-Based Learning in mathematics classrooms: Faculty concerns with small group work. *Paper presented at the R. L. Moore Legacy Conference*, Denver, CO.

49. **Mesa, V**., White, N., Burn, H. (February, 2014). Academic and social integration revealed in characteristics of successful programs in college calculus project: the two-year college context. *Seventeenth Special Interest Group of the Mathematical Association of America on Research in Undergraduate Mathematics Education Conference on Research in Undergraduate Mathematics Education*. Denver, CO.

50. White, N., **Mesa, V.**, Blum, C. (February, 2014) Characterizing mathematical complexity of tasks in Calculus I. *Seventeenth Special Interest Group of the Mathematical Association of America on Research in Undergraduate Mathematics Education Conference on Research in Undergraduate Mathematics Education*. Denver, CO.

51. Ko, I. & **Mesa, V**. (February, 2014). Investigating instructors' concerns about assessments in Inquiry-Based Learning methods courses. *Seventeenth Special Interest Group of the Mathematical Association of America on Research in Undergraduate Mathematics Education Conference on Research in Undergraduate Mathematics Education*. Denver, CO.

52. Whittemore, T., & Mesa, (February, 2014). Assessment in undergraduate Inquiry-Based Learning mathematics courses. *Seventeenth Special Interest Group of the Mathematical Association of America on Research in Undergraduate Mathematics Education Conference on Research in Undergraduate Mathematics Education*. Denver, CO.

53. **Mesa, V**. & Goldstein, B. (February, 2014). Conceptions of inverse trigonometric functions in community college lectures, textbooks, and student interviews. *Seventeenth Special Interest Group of the Mathematical Association of America on Research in Undergraduate Mathematics Education Conference on Research in Undergraduate Mathematics Education*. Denver, CO.

54. Leckrone, L. & **Mesa, V**. (February, 2014). Mathematical tasks and cognitive demands in trigonometry lessons. *Seventeenth Special Interest Group of the Mathematical Association of America on Research in Undergraduate Mathematics Education Conference on Research in Undergraduate Mathematics Education*. Denver, CO.

55. **Mesa, V.**, & Celis, S. (2013, April). *Investigating professional obligations in teaching trigonometry in community colleges*. Paper to be presented at the American Educational Research Association Annual Meeting, San Francisco, CA.

56. **Mesa, V.**, & The Teaching Mathematics in Community Colleges Research Group. (2012, July). *Using community college students' understanding of a trigonometric statement to study their instructors' practical rationality in teaching.* Paper presented at the International Congress of Mathematical Education, Seoul, South Korea.

57. **Mesa, V.**, Lande, E., & Whittemore, T. (2012, July). *On the analysis of classroom interaction in community college trigonometry classes.* Paper presented at the 36th Conference of the International Group for the Psychology of Mathematical Education, Taipei, Taiwan.

58. **Mesa, V.**, Lande, E., & Whittemore, T. (2012, July). *Methodological considerations in the analysis of classroom interaction in community college trigonometry.* Paper presented at the 12th International Congress on Mathematical Education, Seoul, Korea.

59. **Mesa, V.** (2012). *Instructors' practical rationality in community college trigonometry.* Paper presented at the 36th Conference of the International Group for the Psychology of Mathematical Education, Taipei, Taiwan.

60. Whittemore, T., **Mesa, V.**, & Sully, M. (2012, June). *Instructors' concerns about teaching Inquiry-Based Learning math courses: A preliminary report.* Paper presented at the 15th Annual Legacy of R. L. Moore Conference, Austin, TX.

61. **Mesa, V.** (2012). *Using community college students' understanding of a trigonometric statement to study their instructors' practical rationality in teaching.* Paper presented at the Annual Conference of the SIG/MAA Research in Undergraduate Mathematics Education Portland, Oregon.

62. Aaron, W., **Mesa, V.**, & Herbst, P. (2012). *Challenges and tools in the facilitation of combined professional development and research sessions: The case of community college instructors.* Paper presented at the Annual Conference of the SIG/MAA Research in Undergraduate Mathematics Education Portland, Oregon.

63. **Mesa, V.** (2011, April). *Achievement goal orientation of community college mathematics students and the misalignment of instructors' perceptions.* Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans.

64. **Mesa, V.**, & Celis, S. (2011, April). *Teaching approaches of community college mathematics faculty: Do they relate to classroom questioning practices?* Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans.

65. **Mesa, V.**, & Celis, S. (2011, February). *Teaching approaches of community college mathematics faculty: Do teaching approaches relate to classroom practices?* Paper presented at the 14th Annual Conference on Research on Undergraduate Mathematics Education, Portland, Oregon.

66. **Mesa, V.**, & Herbst, P. (2011, February). *Using animations of teaching to probe the didactical contract in community college* mathematics. Paper presented at the 14th Annual Conference on Research on Undergraduate Mathematics Education, Portland, Oregon.

67. **Mesa, V.**, Suh, H., Blake, T., & Whittemore, T. (2011, February). *An analysis of examples in college algebra textbooks for community colleges: Opportunities for student learning.* Paper presented at

the 14th Annual Conference on Research on Undergraduate Mathematics Education, Portland, Oregon.

68. Suh, H., **Mesa, V.**, Blake, T., & Whittemore, T. (2011, April). *Cognitive demand and opportunity to learn strategies for 'controlling the work' in examples in college algebra textbooks.* Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans.

69. **Mesa, V.**, Ström, A., Thompson, P. W., & Shaughnessy, M. (2010, November). *Investigating teaching practices through systematic inquiry.* Paper presented at the Annual Meeting of the American Mathematical Association of Two-Year Colleges, Boston, MA.

70. **Mesa, V.**, & Lande, E. (2010, November). *Math remediation in the US: Recent results.* Paper presented at the Pre-Conference Workshop, Entering College without Mathematics Pre-Requisites, Boston, MA.

71. **Mesa, V.**, Krevisky, S., & Cleaves, C. (2010, November). *Entering college without mathematics pre-requisites.* Paper presented at the Pre-Conference Workshop, Annual Meeting of the American Mathematical Association of Two-Year Colleges International Education Subcommittee, Boston, MA.

72. Suh, H., **Mesa, V.**, Blake, T., & Whittemore, T. (2010, October). *An analysis of examples in college algebra textbooks: Opportunities for student learning.* Paper presented at the Annual Meeting of the Michigan Chapter of the American Mathematical Association of Two-Year Colleges.

73. **Mesa, V.** (2009, November). *Similarities and differences in classroom interaction between pre-college and developmental mathematics classrooms in a community college.* Paper presented at the Association for the Study of Higher Education, Vancouver, BC.

74. **Mesa, V.** (2009, November). *Opportunity to learn, grades, and success in mathematics at community colleges.* Paper presented at the Association for the Study of Higher Education, Vancouver, BC.

75. **Mesa, V.** (2009, November). *Investigating instruction in pre-STEM mathematics courses at a community college.* Paper presented at the Association for the Study of Higher Education, Vancouver, BC.

76. **Mesa, V.**, & Chang, P. (2009, April). *The language of engagement in two highly interactive undergraduate mathematics classrooms.* Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, CA.

77. **Mesa, V.** (2009, April). *Analysis of classroom interaction in mathematics classrooms in a community college.* Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, CA.

78. **Mesa, V.**, & Chang, P. (2008). Instructors' language in two undergraduate mathematics classroom. In O. Figueras, J. L. Cortina, S. Alatorre, T. Rojano & A. Sepúlveda (Eds.), *32nd International Meeting of the Psychology of Mathematics Education Group* (Vol. 3, pp. 367-364). Morelia, Mexico: Centro de Investigación y Estudios Avanzados del IPN.

79. **Mesa, V.**, Boyle-Heimann, K., Mosher, B., Rhea, K., & Megginson, R. (2007, April). *The Douglass Houghton Scholars Program: Lessons learned in the first year.* Paper presented at the Diversity Summit, Educating a STEM Workforce: New Strategies for U-M and the State of Michigan, University of Michigan, Ann Arbor.

80. Delaney, S., Charalambous, C., Hsu, A., & **Mesa, V.** (2007). The treatment of addition and subtraction of fractions in Cypriot, Irish, and Taiwanese textbooks. In J.-H. Woo, H.-C. Lew, K.-S. Park & D.-Y. Seo (Eds.), *31st International Meeting of the International Group of the Psychology of Mathematics Education* (Vol. 2, pp. 193-200). Seoul, Korea.

81. Kilpatrick, J., **Mesa, V.**, & Sloan, F. (2006, November). *U.S. algebra teaching and learning viewed internationally.* Paper presented at the Second IEA International Research Conference, Brookings Institution, Washington, DC.

82. Finelli, C. J., Gottfried, A. C., Kaplan, M. L., **Mesa, V.** M., O'Neal, C. M., & Piontek, M. E. (2006, June). Evaluating methods to improve teaching in engineering. *Proceedings of the 2006 ASEE Annual Conference and Exposition.* Chicago, IL.

83. **Mesa, V.** & Saunders, S. (2003). Integrating equity and complex social problems in mathematics teacher education. In J. Zilox, N. Pateman, & B. Dogherty (Eds.). *Proceedings of the 27th Conference of the International Group of the Psychology of Mathematics Education*. Oahu, Hawaii: University of Hawaii.

84. **Mesa, V.**, & Wilson, P. (2003, January). *Two approaches to a history of mathematics course for future mathematics teachers.* Paper presented at the Joint Meeting of the Mathematical American Association and the American Mathematical Society, Baltimore, MD.

85. **Mesa, V.** (2002). Uses of curriculum materials in high-school algebra: The case of an "old-fashioned" teacher. In D. Mewborn (Ed.) *Proceedings of the 25th Conference of the Psychology of Mathematics Education-North American Chapter.* Athens, GA: University of Georgia.

86. **Mesa, V.**, & Saunders, S. (2002). Crafting experiences within a social justice perspective for teachers in urban settings. In D. Mewborn (Ed.), *Proceedings of the 25th Conference of the Psychology of Mathematics Education-North American Chapter* (Vol. 1, pp. 159-162). Athens, GA: University of Georgia.

87. Silver, E. A., **Mesa, V.**, Benken, B., Mairs, A., Morris, K, & Star, J. (2002, April). *Characterizing teaching and assessing for understanding in middle grades mathematics: An examination of best practice portfolio submissions to NBPTS*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.

88. **Mesa, V.** (2001). Functions in middle school mathematics textbooks: Implications for a functional approach to algebra. In H. Chick, K. Stacey, Jill Vincent, & John Vincent (Eds.), *Proceedings of the 12th International Committee on Mathematics Instruction (ICMI) Study Conference: The future of the teaching and learning of algebra* (Vol. 2, pp. 454-461). University of Melbourne, Melbourne, Australia.

89. **Mesa, V.** (2001, April). *Conceptions of function present in seventh- and eighth-grade textbooks from fifteen countries.* Paper presented at the American Educational Research Association, Seattle, WA.

90. **Mesa, V.** (2001). Prototypical uses of function present in seventh- and eighth-grade textbooks from fifteen countries. In M. v. Heuvel-Panhuizen (Ed.), *Proceedings of the 25th conference of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 367-374). Utrecht: Freudenthal Institute.

91. **Mesa, V.** (1998, April). *A review of literature on under achievement of minorities in mathematics.* Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, CA. (ERIC Document Reproduction Service No. ED 428 113)

92. **Mesa, V.** & Herbst, P. (1997). A problem solving session designed to explore the efficacy of similes of learning and teaching mathematics. In J. Dossey, J. Swafford, M. Parmantie, & A. Dossey (Eds.), *Proceedings of the 19th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 331-338). Bloomington, Illinois: Illinois State University.

93. **Mesa, V. M**. (1997). The use of the graphing calculator in solving problems on functions. In E. Pehkonen (Ed.), *Proceedings of the 21st Conference of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 240-247). Lahti, Finland: University of Helsinki.

94. **Mesa, V.** & Gómez, P. (1996). Graphing calculators and pre-calculus: An exploration of some aspects of students' understanding. In L. Puig & A. Gutiérrez (Eds.), *Psychology of Mathematics Education*, (Vol. 3, pp. 391-398). Valencia: University of Valencia.

95. Perry, P. **Mesa, V.**, Fernández, F. & Gómez, P. (1995, August). *Mathematics, chance, and society: An experiment on the teaching and learning of undergraduate statistics.* Paper presented at the Ninth Inter-American Conference of Mathematics Education. Santiago de Chile.

96. Carulla, C., Gómez, P. & **Mesa, V.** (1995, August). *A priori and a posteriori analysis of didactic situations in the mathematics classroom.* Paper presented at the Ninth Inter-American Conference of Mathematics Education. Santiago de Chile.

TALKS & WORKSHOPS [* DENOTES AN INVITED PRESENTATION]

1. ***Mesa, V.** (2022, April) *Mathematical instruction and textbook use in post-secondary and tertiary contexts: A discussion of methods.* National Council of Teachers of Mathematics, ICME talks (Virtual).

2. ***Mesa, V.** (2022, April). *Mathematical instruction in post-secondary contexts.* Mathematics Colloquium, San Diego State University.

3. ***Mesa, V.** (2022, March). *Investigating the use of free, open source, open access, and interactive mathematics textbooks in college courses.* Mathematics Spring Colloquium, California State University, Long Beach.

4. ***Mesa, V.**, & AI@CC Research Group. (2021, April, 30). *Algebra instruction at community colleges: Investigating the relationship with student outcomes*. Paper presented at the Chicago Symposium Series-Excellence in Teaching Mathematics and Science: Research and Practice, Chicago, IL (Virtual).

5. ***Mesa, V.** (2021, March 16). *Documents for teaching a lesson: Lecture notes and their production*. Paper presented at the Electronic Seminars in Mathematics Education, Cornell University, NY (Virtual).

6. ***Mesa, V.** (2020, January). *Instruction and resources in post-secondary mathematics: How their interplay shapes what we do in the classroom*. Paper presented at the Joint meeting of the Mathematical Association of America and the American Mathematical Society, Denver, CO.

7. ***Mesa, V.,** & The AI@CC Research Group. (2019, October). *Algebra Instruction at Community Colleges*. Paper presented at the Mathematics Department Seminar, University of Montana, Missoula, MT.

8. ***Mesa, V.** (2019, December). *Teaching and learning with dynamic textbooks in postsecondary settings*. Paper presented at the 2019 Conference of the Joint Societies for Mathematics Education, Anjou University, Suwon, South Korea.

9. *González-Martín, A., **Mesa, V.**, Monaghan, J., & Nardi, E. (2019, August). *From Newton's first to second law: How can curriculum, pedagogy, and assessment celebrate a more dynamic experience in calculus?* Symposium presented at the Calculus in Upper Secondary and University Mathematics, Agder University, Kristiansand, Norway.

10. ***Mesa, V.** (2016, September). *Investigations of instruction and teaching in post-secondary settings*. Paper presented at the Colloquium of the Mathematics Education Department, Brigham Young University.

11. ***Mesa, V.** (2016, September). *Aprendizaje guiado por indagación en matemáticas de pregrado [Inquiry-based learning in undergraduate mathematics)*. University of Chile, Santiago de Chile.

12. ***Mesa, V.** (2016, September). *¿Qué puede aportar la investigación de instrucción en matemáticas a los programas de educación superior? [What can research on mathematics instruction contribute to higher education programs?]*. Universidad Tecnológica de Chile, Instituto Profesional Centro de Formación Técnica, Santiago de Chile.

13. ***Mesa, V.** (2016, August). *Investigaciones de instrucción y enseñanza en las matemáticas de pregrado [Studies of instruction and teaching in undergraduate mathematics]*. Paper presented at the Seminario Centro de Modelamiento Matemático, Facultad de Ciencias Físicas y Matemáticas, Universidad de Chile, Santiago de Chile.

14. ***Mesa, V**. (2016, May). *The National Study of Calculus I: Insights, lessons learned, and future directions*. Department of Mathematics, Ohio State University, Columbus OH.

15. ***Mesa, V**. (2016, March). *El Estudio Nacional de Cálculo: ¿Qué aprendimos?* [*The National Study of Calculus: What did we learn?*] Mathematics and Science Division. University of Valparaiso, Valparaiso, Chile.

16. **Mesa, V.,** White, N., & Sobek, S. (2015, October). *Calculus I teaching: What can we learn from snapshots of lessons from 18 successful institutions?* Paper presented at the Annual Conference of the Society for the Advancement of Chicano/Hispanic and Native American Students in the Sciences, Washington, DC.

17. *__Mesa, V.__ (2015, September). *Post CSPCC: What we do not know.* Panel presentation in the Transforming Post-Secondary Education Meeting, U. Chicago. With Uri Treisman, David Bressoud, Stephen DeBacker, Suzanne Lenhart, and Karen Saxe.

18. *__Mesa, V__. (2015, March). *The National Study of Calculus I: Insights, lessons learned, and future directions.* Kaput Center for Research and Innovation in STEM Education. University of Massachusetts, Dartmouth.

19. *__Mesa, V.__ & Celis, S. (2013, April). *Obligaciones profesionales en la enseñanza de la trigonometría en "community colleges" [Professional obligations in teaching trigonometry in community colleges.]* Conferencias Virtuales del Grupo de Educación Matemática y Análisis Didáctico, Universidad de Los Andes, Bogotá, Colombia.

20. *__Mesa, V.__ & Celis, S. (2013, January). *Investigating professional obligations in teaching trigonometry in community colleges.* Learning Sciences Research Colloquium, College of Education, University of Haifa, Israel.

21. *__Mesa, V.__ (2012, November). *Studying instructional interactions in community colleges: Lessons from mathematics classrooms.* Presidential Panel, Annual Meeting of the Association for the Study of Higher Education, Las Vegas, NV.

22. *__Mesa, V.__, & The Teaching Mathematics in Community Colleges Research Group. (2012, October). *Making sense of teaching: Different ways to look at the mathematics classroom.* Keynote address delivered at the Annual Meeting of MichMATYC, Monroe Community College, MI.

23. *__Mesa, V.__ (2012, July). *Investigating the rationality of teacher decisions: Mathematics in community colleges.* Paper presented at the Second Conference on Transforming Research in Undergraduate STEM Education, St Paul, MN.

24. Sully, M., **Mesa, V.**, & Whittemore, T. (2012, April). *Concerns about teaching mathematics with inquiry-based learning methods.* Paper presented at the 24th Annual University of Michigan UROP Spring Research Symposium, Ann Arbor, MI.

25. Kasal, E., & **Mesa, V.** (2012, April). *Developing a rubric to analyze concept maps.* Paper presented at the 24th Annual University of Michigan UROP Spring Research Symposium, Ann Arbor, MI.

26. *__Mesa, V.__ (2012, March). *Making sense of teaching: Attending to classroom interaction in mathematics.* Paper presented at the Webinar for the American Mathematical Association of Two-Year Colleges, Sponsored by the Research in Mathematics Education Committee.

27. *__Mesa, V.__ (2010, June). *Lessons learned from analyses of mathematics textbooks.* Integrating science and Mathematics Education Research into Teaching. University of Maine, Orono, ME.

28. **Mesa, V.** (2010, June). *Analyzing instructors' rationality behind classroom interaction in community colleges mathematics classes.* Second Representations of Teaching Conference. University of Michigan, Ann Arbor.

29. *Finelli, C., **Mesa, V.**, Daly, S. (2010, May). *Introduction to research in engineering education.* Center for Research on Learning and Teaching-North, University of Michigan, Ann Arbor.

30. **Mesa, V.** (2009, November). *What can we learn from studying how we talk in the classroom?* Paper presented at the Annual Meeting of the American Mathematical Association of Two-Year Colleges.

31. **Mesa, V.**, Lande, E., & John, G. (2009, October). *Preliminary findings of a study of teaching at community colleges.* Paper presented at the MichMATYC Conference 2009, Dearborn, MI.

32. Cheng, A., & **Mesa, V.** (2009, April). Inquiry Based Learning—An analysis of its impact on students. Poster presented at the Annual Undergraduate Research Opportunities Research Forum. Ann Arbor, MI: University of Michigan.

33. *__Mesa, V.__ (2009, January). *Dialogical engagement in two interactive mathematics lessons.* Joint Meeting of the American Mathematical Society and the Mathematical Association of America. Washington, D.C.

34. *__Mesa, V.__, Finelli, C., Jacquette, O. (2008, October). *Measuring the impact of an individual course on students' success.* Third Annual Poster Session on Research and Scholarship in Engineering Education. College of Engineering, University of Michigan.

35. **Mesa, V.** &, Chang, P. (2008, July). *Instructors' language in two undergraduate mathematics classrooms.* Paper presented at the 32nd Meeting of the International Group of the Psychology of Mathematics Education, Morelia, Mexico.

36. **Mesa, V.** (2008, July). *Classroom participation in pre-college mathematics courses in a community college.* Paper presented at the International Congress of Mathematics Education-DG 23, Monterrey, Mexico.

37. **Mesa, V.** (2008, July). *Researching mathematics instruction in community colleges.* Paper presented at the International Congress of Mathematics Education-TSG 8, Monterrey, Mexico.

38. **Mesa, V.**, & Chang, P. (2008, February). *Analysis of stance in two interactive mathematics lessons.* Paper presented at the Conference of the Special Interest Group of the Mathematical Association of America on Research in Undergraduate Mathematics Education, San Diego State University, San Diego, CA.

39. **Mesa, V.**, & Chang, P. (2008, March). *Classroom interaction patterns in undergraduate mathematics classrooms.* Paper presented at the Conversations among Colleagues, Western Michigan University, Kalamazoo, MI.

40. **Mesa, V.**, & Cheng, A. (2008, May 2-3). *Classroom interaction in community college mathematics classrooms.* Paper presented at the 80th Annual Meeting, Michigan Section MAA/MichMATYC, Grand Valley State University, Grand Valley, MI.

41. *__Mesa, V.__ (2007, October). *Researching and sustaining mathematics teaching in community colleges.* Invited talk presented at the MSU Mathematics Education Colloquium, East Lansing, MI, October 3, 2007.

42. *__Mesa, V.__ (2007, November). *Mathematics teaching in community colleges.* CSHPE Brown Bag Series, University of Michigan, Ann Arbor, November 28, 2007.

43. *__Mesa, V.__, & Mosher, B. (2007, April). *The Douglass Houghton Scholars Program.* Talk given during the Teaching of Mathematics Seminar, organized by the Math Department.

44. __Mesa, V.__ (2007, April). *Collegiate mathematics textbooks, control structures, and instruction.* Paper presented at the Annual Meeting of the American Educational Research Association, Chicago.

45. Charalambous, C., Delany, S., Hsu, H.-Y., & __Mesa, V.__ (2007, April). *Opportunities to learn mathematics in Cyprus, Ireland, and Taiwan: What can we learn from analyzing mathematics textbooks used in different countries?* Poster presented at the Annual Meeting of the American Educational Research Association, Chicago.

46. __Mesa, V.__ (February, 2007). *Insights from instructors using textbooks for teaching mathematics.* Paper presented at the Tenth Research in Undergraduate Mathematics Education Conference, San Diego.

47. __Mesa, V.__ (January, 2007). *Controlling the work in solving initial value problems: Contrasting introductory calculus textbooks.* Paper presented at the Joint Meeting of the Mathematical American Association and the American Mathematical Society, New Orleans.

48. __Mesa, V.__ (2006, July 5-8). *Control structures in mathematics textbooks for introductory calculus.* Paper presented at the Third International Conference on the Teaching of Mathematics, Istanbul.

49. __Mesa, V__. (2006, February 23-26). *Control structures in introductory calculus textbooks*. Session presented at the 9th Conference on Research in Undergraduate Mathematics, New Jersey.

50. __Mesa, V__. (2006, March 9). *What counts as an answer? Contrasting undergraduate calculus textbook content*. Session presented at the Thinking about Mathematics Education Series, University of Haifa, Israel.

51. __Mesa, V.__ (2006, March 27). *What is the answer? Contrasting undergraduate calculus textbook content*. Session presented at the Teaching of Mathematics Seminar Group. Mathematics Department, University of Michigan, Ann Arbor.

52. __Mesa, V.__, & Wright, M. (2003, October). *Resources for departmental graduate student instructor training programs.* Session presented at the annual meeting of the Professional and Organizational Development Network in Higher Education. Denver, CO.

53. *__Mesa, V.__ (1999, October 6-10). *Methodologies for Teaching Elementary School Mathematics.* "una empresa docente" & University of Los Andes, Bogotá, October 6-7, 1999.

54. Allexsaht-Snider, M. & **Mesa, V.** (1998). *Intersections: Mathematics, Culture, and Language.* AERA Annual Meeting, San Diego, CA.

55. * **Mesa, V.** (1998). *Colombian girls and mathematics education: An international perspective on creating an equitable school experience in mathematics for girls in K-12.* 76th NCTM Annual Meeting, Washington, DC.

TEACHING EXPERIENCE

Undergraduate Teaching

F20	Calculus 1 (Math 115), Mathematics Department. School of Literature, Science and the Arts, U. Michigan
F13, F14	Teaching Methods for Secondary Mathematics Teachers (EDUC 413). School of Education, U. Michigan
F98	Algebra in Middle School, College of Education, U. Georgia.
W98	Problems of Secondary School Mathematics Teaching, College of Education, U. Georgia.
W97, S97	History of Mathematics from a Multicultural Perspective, College of Education, U. Georgia.
W96	Mathematics for Elementary Teachers, College of Education, U. Georgia.
1985-1995	Probability for Social Sciences, Statistics for Social Sciences, Pre-Calculus, Calculus. Mathematics Department, U. Los Andes.

Graduate Teaching, Master's Level

W22, W21, W20	Contemporary Approaches to Educational Assessment (EDUC 607). School of Education, U. Michigan.
F02	Curriculum Development and Evaluation (EDUC 609). School of Education, U. Michigan.
S07, F07, F08, F09, F10, S13, S15, W16, F16, F17, F18	Research and Educational Practice (EDUC 695). School of Education, U. Michigan.
F06	Contemporary Approaches to Educational Assessment (EDUC 737). School of Education, U. Michigan.

Graduate Teaching, Doctoral Level

F06, W09, W17	Research in Mathematics Education (EDUC 711). School of Education, U. Michigan.
W06, F08, F10	College Teaching (EDUC 737). School of Education, U. Michigan.
F05, F07, F09, F01	Curriculum in Mathematics Education (EDUC 737). School of Education, U. Michigan.
W12, W14, F15	Mathematics Curriculum: Research and Development (EDUC 783). School of Education, U. Michigan.

W07, W11, W14	Qualitative Methods for Research in Education (EDUC 792). School of Education, U. Michigan.
W03	Curriculum Theory and Practice (EDUC 809). School of Education, U. Michigan.
W06, 08-09, 10-11, 11-12	Professional Development Seminar (EDUC 898). School of Education, U. Michigan.

Faculty Development Workshops

W16	Observing classes to give feedback to faculty. Universidad de Valparaíso, Chile.
W16	Implementing Inquiry-Based Learning in STEM. Universidad de Valparaíso, Chile
SU15	Observing classes to give feedback to faculty. Jackson Community College, MI.
W09	Observing classes to give feedback to faculty. Washtenaw Community College, MI.
F03, W04, F04	Problem solving and critical thinking, CRLT, University of Michigan.
W04, F04	Managing student teams, CRLT, University of Michigan.
F04	Using concept maps for teaching and assessing students' learning, CRLT, University of Michigan.
F03, S04, F04	Classroom assessment techniques, CRLT, University of Michigan.
W04	Best practices in college teaching, CRLT, University of Michigan.
S03, S04	Facilitating practice teaching, CRLT, University of Michigan.
F04	Observing classes and collecting student feedback, CRLT, University of Michigan.

SERVICE, SCHOOL OR UNIVERSITY

2021-2022	Senate Representative for the Research Advisory Committee
2021	Jones-Payne-Coxford Award Committee
2020-2022	School of Education Senate Assembly Representative
2020-2022	School of Education's Faculty Grievance Panel
2019-2020	Higher Education Faculty Search Committee
2018-2020	Advisory Board, Foundational Course Initiative, University of Michigan
2018	Student Evaluations Task Force, University of Michigan
2017-2018	Chair, Promotion and Tenure Committee
2017	Faculty Affiliate, Engineering Education Program
2017	Nominated for the Executive Board of the Rackham Graduate School
2016	Jones-Payne-Coxford Award Committee, EMST Unit.
2015-2016	Higher Education Faculty Search Committee
2015-2016	EMST Unit Coordinator, Educational Studies, School of Education, University of Michigan Ann Arbor, MI

2015-2016	Teacher Education Liaison, Secondary Mathematics Teacher Education and Educational Studies
2015	Promotion and Tenure Committee, School of Education, University of Michigan Ann Arbor, MI
2014	Internal Review Committee for the *Center for Research on Learning and Teaching,* University of Michigan, Ann Arbor, MI.
2014-2015	Member, Mathematics Education Faculty Search Committee*,* University of Michigan, Ann Arbor, MI
2012-2015	Executive Committee, School of Education
2012-2016	Steering Committee, Women of Color in the Academy Project, *Center for the Education of Women,* University of Michigan, Ann Arbor, MI.
2012	Advisor for the Rising Scholar Award, *Becoming Educators of Tomorrow*.
2012, 2016	Reactor for students' presentations during the GSCO-BET Graduate Student Conference
2011	Evaluator, Mark Conger's portfolio promotion to Lecturer II, Comprehensive Studies Program, U-M.
2011	Advisory Board Member, Comprehensive Studies Program, U-M.
2011-2012	Member, SoE Task Force, Qualitative Research Methods
2007, 2011, 2015, 2016, 2017	Fulbright U-M Applications Reviewer
2009-present	Educational Studies Executive Committee, School of Education, U. Michigan.
Ongoing	Review of applications for the new master's program
Ongoing	Review of applications for the PhD in mathematics education
2008-present	Collaboration with Gavin Larose, Al Taylor, Hyman Bass, Karen Rhea, and Mark Thames in planning the monthly Mathematics Teaching Seminar offered by the Mathematics Department.
2007-2009	Graduate Affairs Committee, School of Education, U. Michigan.
1997-1998	NCTM representative for the Mathematics Education Student Association, University of Georgia.

Student Advisees {** student graduated;* † *student discontinued*}

Doctoral Advisees, U. Michigan: Anne Cawley*, Saba Gerami, Amy Jeppsen*, Elaine Lande*, Linda Leckrone*, Carlos Quiroz†, Tim Whittemore†

Post-doctoral Advisees: Nina White (now at U of Michigan), Angeliki Mali (at U. of Groningen, The Netherlands), Yannis Liakos

Dissertation Chair/Co-Chair, U. Michigan:

> Saba Gerami. Dissertation proposal in progress. *Planning and implementing mathematical tasks in IBL and lecture-based calculus 1 courses: How do instructors decide?*
>
> Claire Boeck. Dissertation proposal in progress. *A critical study of good student discourse in first-year undergraduate courses*

Anne Cawley*. Dissertation title: *The mathematical experiences of Latinx community college students in an intermediate algebra course: The interplay of environment, resources, and mathematics identity on classroom instruction.* 2018

Linda Leckrone*. Dissertation title: *What? How? Why? Two-year college calculus instructors use of resources when teaching the fundamental theorem of calculus.* 2018

Amy Jeppsen*. Dissertation title: *Choosing and using mathematics curricula for future teachers: The role of the teacher,* 2010

Brett Griffiths*. Dissertation title: *"This is my profession:" How notions of teaching enable and constrain autonomy of community college writing instructors.* 2015

Elaine Lande*. *Why teachers teach the way they do: Investigating community college trigonometry instructors' professional obligations.* 2014.

Ravin Pan*. Dissertation title: *Teaching algebra in an inner-city classroom: Conceptualization, tasks, & teaching*, 2008.

Dissertation Reader:

Victor Martínez-Luaces. Dissertation title: Posing inverse modeling problems for task enrichment in a secondary mathematics teachers training program. 2021, April. U. of Granada, Spain.

Carola Hernández. Dissertation title: *Introducing student-centered approaches in university physics education: Perspectives on PO-PBL.* 2013. U. of Aalborg, Denmark

Doctoral Committees, University of Michigan

School of Education: Leigh Arsenault, Mollie Bush-Grundy, Gail Gibson,* Leanne Kang,* Jillian Gross,* Judy Lawson,* Carolyn Masserang, Imani Masters*, Jennifer Pollard, Jenny Sealy*, Helen Seidel*, Mollee Shultz*, Christie Toth,* Bonnie Tucker.*

Mathematics Department: Mahesh Agarwal*, Francesca Gandini*, Sara Lapan*, Kyun-Yong Lee*, Michele Lee*, Aaron Magid*, Johanna Mangahas*, Jeff Meyer*, Jasmine Powell*, David Schwein, Craig Spencer*, Giancarlo Urzua*, Liz Vivas*, Nina White*, Farrah Yhee.

Chemistry Department: Ahleah Rohr,* Jeffrey Spencer

Other Doctoral Committees

Claremont Graduate University: Juanita Razo

University of Missouri: Vicky Spain*

University of Illinois, Chicago: John Bragelman*

University of Texas, Austin: Adam Castillo*

University of Delaware, Amanda Mohammad Mirzaei

Master of Arts Advisees

School of Education, U. Michigan: Andreea Dersidaan*, Ryan Holmes*, Shu Jun Lee*, Ksenia Niglas*, Heejoo Suh*, Kathy Spiess*, Xiaodan Tang*, Siqi Wang*, Tim Whittemore*.

University of Los Andes: Cristina Carulla*.

Students in the Undergraduate Research Opportunity Program, U. Michigan

Cameron Bloom*, Lelia Bursley-Sanford, Alice Cheng*, Paul Cochran*, Lizbeth Díaz*, Bradley Goldstein*, Yanaphat Hemrattaphat, Xinyi Hao, Dora Q. Hu, Sena Kaddurah, Evan Kasal*, Kyle LaFollette*, Shi Qi Lim, Martha McAllister-Raeburn*, Cody Michael, Mina Nielsen, Jacob Shemka, Mary Sully*, Kimberly Truong*, Amin Ullah*.

SERVICE PROFESSIONAL COMMUNITY

2020-2022	International program committee member, IV International Conference on Mathematics Textbooks, Eindhoven, The Netherlands
2018-2019	Organizer, National Academies of Sciences, Engineering, and Mathematics Panel on the State of Developmental Education.
2019-2021	Treasurer, MAA Special Interest Group on Research in Undergraduate Mathematics Education
2019	Visiting Scholar, Faculty of Education, University of the Americas Santiago de Chile, Chile
2018-2019	Topic Working Group 14: University mathematics, coordinator; Eleventh Congress of the European Society for Research in Mathematics Education, Utrecht, The Netherlands
2018	Visiting Scholar, Faculty of Physical Sciences and Mathematics, University of Chile, Santiago de Chile, Chile
2018-2020	International program committee member, III International Conference on Mathematics Textbooks, Padeborn, Germany
2017-2020	Board of Directors, Initiative for Mathematics Learning by Inquiry (MLI)
2017-2019	Mathematical Association of America Committee on Curriculum Renewal Across the First Two Years
2016	Fulbright visiting professor. Center of Mathematical Modeling, University of Chile. Advisor to three projects, *ARPA* (Problem Solving and Reasoning), *Video Analyses of Lessons*, and *Undergraduate Mathematics Lab*. Drs. Patricio Felmer (CMM), Sergio Celis (Engineering), and Natacha Astromujoff (Mathematics)
2016-2019	Advisory board member, *Progress Through Calculus*, NSF-IUSE funded project to David Bressoud (Macalester College) and Chris Rasmussen (San Diego State University)
2016-2018	Advisory board member, *Exploring how peer-collaborative math problem-solving courses and mentoring affect performance/persistence for HSI 2-year college and 4-year college transfer students*, NSF-DUE funded project to Guadalupe Lozano and Robert Indik (University of Arizona)
2016	University of Valparaíso, Chile. I spent a week with the College of Natural Sciences as part of the reconfiguration of the first two years of their undergraduate studies. Dr. Harvey Rosas, director of undergraduate studies in the college facilitated the visit.
2015-2016	Mathematical Association of America (MAA) Instructional Practices Guide, Writing workshop participant. Chair: Lew Ludwig. Mathematical Association of America

2016-2020	Editorial Board, *International Journal for Research in Undergraduate Mathematics Education*
2015-2023	Associate Editor, *Educational Studies in Mathematics*
2014-2016	AMATYC Committee on Revision of the Beyond Crossroads Standards document. Chair: Rob Farinelli.
2014-2016	Advisory Board, *2025 Common Vision*, PIs: Karen Saxe (Macalester College) and Linda Braddy (Mathematical Association of America)
2012	Advisory Council convened by Dr. Rose B. Bellanca, President Washtenaw Community College
2011-2014	Advisory board member, Preparing to Teach Algebra, NSF funded project to Sharon Senk (Michigan State University), Yuyiko Maeda and Jill Newton (Purdue).
2009-present	Midwest Research Representative, American Mathematical Association of Two-Year Colleges
2010-2014	Editorial Board, Educational Studies in Mathematics
2009-2012	Editorial Board, American Educational Research Journal-TLHD
2007-2010	Advisory Board, U-M Instructional Development and Educational Assessment [IDEA] Institute
2007-present	Editorial Board, Revista *PNA, Didáctica de la Matemática: Pensamiento Numérico* Journal of the Andalusian Numerical Thinking Research Group, University of Granada, Spain
2006-2009	Member of the Program Committee, Conference of the Research in Undergraduate Mathematics Education.
2000-2004	Associate Editor, *Journal for Research in Mathematics Education.*
1997-1998	Editor, *The Mathematics Educator,* Journal of the Mathematics Education Student Association (MESA), University of Georgia.
	NCTM representative for the Mathematics Education Student Association, University of Georgia.
1995-present	Editorial Board, *Educación Matemática*, Journal of the Association of Teachers of Mathematics in Colombia.
Reviewer	*American Educational Research Journal* *Educational Studies in Mathematics* *Focus—On Learning Problems in Mathematics* *IEEE Transactions in Education* *International Journal for Research in Undergraduate Mathematics* *International Journal of Science and Mathematics Education* *Issues in Teacher Education* *Journal of Mathematical Behavior* *Journal of Mathematics Teacher Education* *Journal for Research in Mathematics Education* *Journal of the Learning Sciences* *MathAMATYC Educator* *Review of Educational Research*

To Improve the Academy. Journal of the Professional and Organizational Development Network in Higher Education

AERA annual meeting: Curriculum Studies (B), Learning and instruction (C), Education in the Professions (I), Postsecondary Education (J), Teaching and Teacher Education (K), SIG-Research in Mathematics Education, and SIG-International Studies)
Annual Meeting of the Association for the Study of Higher Education, 2008, 2009, 2015
International Conference of the Learning Sciences, *2008*
International Group of the Psychology of Mathematics Education [PME]
PME- North American Chapter, 2012

Conference on Research in Undergraduate Mathematics Education, 2010, 2012, 2016, 2015, 2016, 2017

Institution of Education Sciences. NCER Centers - Cognition & Adult Literacy, 2012, 2013, 2015

Israel Science Foundation, Individual Research Grants Reviewer, 2018

National Science Foundation, Ad Hoc reviewer, 2013, 2015

National Science Foundation's Teachers Professional Continuum and Instructional Materials Development programs, EHR-ESIE; Math-Science Partnerships, 2006.

SERVICE: CONSULTING

2021	Math Leaders Convening-Catalyzing systemic change. National Science Foundation award to David Kung, St. Mary's College of Maryland.
2020-2023	Advisory Board: Collaborative Research: Math Persistence through Inquiry and Equity (mPIE). National Science Foundation Career award to Daniel Reinholz, San Diego State University.
2020-2023	Advisory Board: Implementing techtivities to promote covariational reasoning and instructional transformation in college algebra. National Science Foundation award to Heather Johnson, University of Colorado, Denver.
2020-2022	Consultant: *College level organic chemistry teaching: Understanding the influence of institutional context on the professional evolution of faculty*. National Science Foundation Career Award to Ginger Shultz, University of Michigan.
2013-2015	Evaluation of the NSF- TUES-1 project, *Transforming Developmental Mathematics Education in Partnership with Teacher Preparation*. PIs: Pavel Sikorskii, Kristen Bieda, Raven McCrory and Beth Herbel-Eisenmann. College of Education, Michigan State University.
Spring 2011, 2014	Evaluation of the NSF-PRISM: *Mathematics in Life Science.* PI: Dix Petey, Mathematics Department, University of Missouri.
Fall 2011	Two-year institutions consultant to the Mathematical Association of America, *Characteristics of Successful Programs in College Calculus*. PIs: David Bressoud, Chris Rasmussen, Marilyn Carlson, and Mike Pearson.

COMMUNITY SERVICE

2018-2020	Board of Trustees, First Unitarian Universalist Congregation of Ann Arbor.
2017-2018	Ministerial Search Team, First Unitarian Universalist Congregation of Ann Arbor.
2011-2016	Mathcounts Coach, Forsythe Middle School.
2011-2013	Club de Lectura, En Nuestra Lengua (Literacy program for heritage Spanish speakers).

MEMBERSHIP IN ORGANIZATIONS (*INTERMITTENT)

AMATYC (American Mathematical Association of Two-Year Colleges); AMS (American Mathematical Society); AERA* (American Educational Research Association); AMS/MAA SIG on RUME (Research in Undergraduate Mathematics); EMA (Educación Matemática Colombia); ASHE* (Association for the Study of Higher Education); MAA (Mathematical Association of America); MichMAA (Michigan Section of the Mathematical Association of America); MichMATYC (Michigan Section of the American Association of Two-Year Colleges); NCTM* (National Council of Teachers of Mathematics); PME* (International Group for the Psychology of Mathematics Education); SACNAS* (Society for the Advancement of Chicano and Native Americans in the Sciences), and SIG/RME (SIG-Research in Mathematics Education)

LANGUAGE SKILLS

English and Spanish: reading, speaking, and writing. German, Portuguese, and French: reading.