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EDUCATION

1998: MA & PhD, Ohio State University, Math Education and Cultural Studies in Education

2000: Postdoctoral Studies, Center for Development Research, University of Bonn, Germany, Cultural Studies

1993: MA, University of the Philippines, Mathematics

1989: BS (with honors), University of Santo Tomas (Philippines), Mathematics Education

ADMINISTRATIVE AND ACADEMIC APPOINTMENTS

August 2014-present: Chair, Elementary Education Department, SJSU

August 2012-present: Professor, Department of Mathematics, SJSU

December 2012 – January 3, 2014: Federal Program Director, DRL/DUE, NSF

September 2008 – August 2009: IPA Program Director, DRL, NSF

August 2007- July 2012: Associate Professor, Department of Mathematics, SJSU

August 2002 – July 2007: Assistant Professor, Department of Mathematics, SJSU; Affiliated Faculty: Department of Special Education, SJSU

GRANTS

2011-2012	Google Faculty Institute Seed Grant
2011- 2012	SJSU and Campbell Union Elementary Professional Development Workshop for Grades 1 through 4 Teachers
2008-2009	NSF Intergovernmental Personnel Act
2005 – 2012	NSF Career Grant
2007 – 2009	California Mathematics and Science Partnership Grant
2005-2006	Subaward from UCLA, English Language Development Institute for Algebra 1 Teachers

RELEVANT PUBLICATIONS

Rivera, F. *Teaching to the Common Core Standards: Focus on Grades 5 Through 8*. New York: Sense.

Rivera, F. The Distributed Nature of Pattern Generalization. *PNA*, 9(2).

Rivera, F. Abduction and School Mathematics. In L. Magnani & T. Bertolotti (eds.), *Springer Handbook of Model-Based Science*.

Rivera, F., Steinbring, H., & Arcavi, A. (2014). Visualization as an Epistemological Tool. *ZDM*, 47(1).

Rivera, F. (2014). From Math Drawings to Algorithms: Emergence of Whole Number Operations in Children. *ZDM*, 47(1).

Rivera, F. (2014). *Teaching to the Common Core Standards: Focus on Kindergarten Through Grade 5*. New York: Sense.

Rivera, F. (2013). *Teaching and Learning Patterns in School Mathematics: Psychological and Pedagogical Considerations*. New York: Springer.

Forgasz, H. & Rivera, F. (2012). *Toward Equity: Gender, Culture, and Diversity* (Advances in Mathematics Education Volume 3). Netherlands: Springer.

Rivera, F. (2012). Neural correlates of gender, culture, and race and implications to embodied thinking in mathematics. In H. Forgasz & F. Rivera (eds.), *Toward equity: Gender, culture, and diversity (Advances in Mathematics Education, Volume 3)*. Springer.

Rivera, F. (2011). *Toward a Visually Oriented School Mathematics Curriculum: Research, Theory, Practice, and Issues* (Mathematics Education Library Vol. 49). New York: Springer.

Rivera, F. & Becker, J. R. (2011). Formation of Pattern Generalization in Middle School. In J. Kai & E. Knuth (eds.), *Springer Advances in Mathematics Education.* Springer.

Rivera, F. (2010). Visual Templates in Pattern Generalization Activity. *Educational Studies in Mathematics,* 73(3), 297-328.

Rivera, F. (2010). There is More to Mathematics Than Symbols. *Mathematics Teaching,* 218, 42-47.

Rivera, F. (2010). Spicing Up Counting Through Geometry. *Mathematics Teacher,* 104(4), 319-324.

Rivera, F. & Becker, J. (2009). Algebraic Reasoning Through Patterns. *Mathematics Teaching in the Middle School*, 15(4), 212-221.

Rivera, F. & Becker, J. (2008). From Patterns to Algebra: The Development of Generalized Thinking. *ZDM*, 40(1).

Rivera, F. (2008). On the pitfalls of abduction: Complicities and complexities in patterning activity. *For the Learning of Mathematics*, 28(1), 17-25.

Rivera, F. & Becker, J. R. (2008). Middle school children's cognitive perceptions of constructive and deconstructive generalizations involving linear figural patterns. *ZDM, 40(1),* 65-82.
Rivera, F. & Becker, J. R. (2007). Abductive-Inductive (Generalization) Strategies of Preservice Elementary Majors on Patterns in Algebra. *Journal of Mathematical Behavior*, 26(2), 140-155.

Rivera, F. (2007). Visualizing as a Mathematical Way of Knowing: Understanding Figural Generalization. *Mathematics Teacher*, 101(1), 69-75.

Rivera, F. (2007). Accounting for Students' Schemes in the Development of a Graphical Process for Solving Polynomial Inequalities in Instrumented Activity. *Educational Studies in Mathematics*, 65(3), 281-307.

Rivera, F. (2006). Changing the Face of Arithmetic: Teaching Children Algebra. *Teaching Children Mathematics*, 12(6), 306-311.

Rivera, F. & Becker, J. R. (2005). Figural and Numerical Modes of Generalizing in Algebra. *Mathematics Teaching in the Middle School*, 11(4), 198-203.

Rivera, F. (2005). An anthropological account of the emergence of mathematical proof and related processes in technology-based environments. In W. Masalski (Ed.), *Technology-Supported Math Learning Environments: Sixty-Seventh Yearbook* (pp. 125-136). Reston, VA: National Council of Teachers of Mathematics.

PROFESSIONAL SERVICE

External Phd Examiner: Australia
External Grant Evaluator: Israel and UAE Science Foundations
Consultant on a number of STEM Projects in the Bay area
Reviewer: ESM, JRME, JMB, MTL, etc.

PRESENTATIONS

2014: CA STEM Conference sponsored by the CA Department of Education
SJSU University Scholar Series

2013: Research Colloquia: Essen University and University of Hamburg, Germany