

**Troy P. Regis, Ph.D.**

*Teacher Education and Research Developer*

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**ACADEMIC BACKGROUND**

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- August 2008      Doctor of Philosophy**  
University of Missouri, Columbia, Missouri  
Mathematics Education, Department of Learning, Teaching & Curriculum  
Dissertation Title: *Analyzing How Grade Four Teachers Plan to Teach  
Inquiry-based Curriculum Materials and the Influences on Their  
Preparation of Mathematics Lessons*  
Dissertation Advisor: Dr. James E. Tarr
- May 2001          Master of Education**  
Arizona State University, Tempe, Arizona  
Mathematics Education, Department of Curriculum & Instruction  
Advisors: Dr. Alfinio Flores and Dr. James Middleton
- December 1995   Bachelor of Arts**  
Western Michigan University, Kalamazoo, Michigan  
Elementary Education Group Minors: Elementary Education, Science,  
Mathematics (Middle School), and Physical Education

**TEACHING CERTIFICATION**

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- Arizona Department of Education** Expires: September 2010  
Standard Elementary Education Certificate, Kindergarten through 8<sup>th</sup> Grade
- Math Specialist Endorsement, Kindergarten through 8<sup>th</sup> Grade
  - Middle Grade Endorsement, 5<sup>th</sup> through 9<sup>th</sup> Grade

**PROFESSIONAL EXPERIENCE**

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**Kindergarten – Grade 12 Teaching**

- 1998-2004 Mathematics Teacher, Madison Park School, 6<sup>th</sup> and 8<sup>th</sup> grades**  
Madison School District #38 Phoenix, Arizona
- Mathematics Teacher Leader, Madison Park School 1998-2004
  - Master Teacher/Evaluator, Madison Park School 2002-2004
  - Mentor Teacher, Madison Park School 2001-2002
  - Summer Mathematics Institute Instructor, MSD 1999-2002

**1996-1998 Mathematics & Language Arts Teacher, Lincoln Elementary, 4<sup>th</sup>-6<sup>th</sup> grades**

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| Battle Creek Public School District  | Battle Creek, Michigan |
| • Classroom Teacher, 4 <sup>th</sup> through 6 <sup>th</sup> grade Mathematics | 1996-1998              |
| • Classroom Teacher, 4 <sup>th</sup> grade Language Arts                       | 1996-1998              |

**University Teaching****2006-2007 Instructor, University of Missouri-Columbia** **Columbia, Missouri**

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| • Learning & Teaching Number & Operations in Elementary      | Fall 2007   |
| • Diagnosis and Remediation of Learning Problems in Math, MS | Winter 2007 |
| • Teaching Mathematics in Elementary School                  | Winter 2006 |

**2002-2003 Instructor, Arizona State University** **Tempe, Arizona**

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| • Teaching Geometry: K-8 (Masters Level)        | Fall 2003, Spring 2003 |
| • Algebra: Content and Pedagogy (Masters Level) | Fall 2002, Summer 2003 |

**Curriculum Development****Author, *Pre-Transition Mathematics Textbook*** **Summer 2005**

University of Chicago School Mathematics Project (UCSMP), Chicago, Illinois  
 Member of the author team that created the new Grade 6 textbook, *Pre-Transition Mathematics*, to introduce the UCSMP secondary curriculum. This work was part of the entire UCSMP secondary curriculum revision to publish 3<sup>rd</sup> edition materials.

**Professional Service in Mathematics Education*****Connections* Newsletter Advisory Board** **September 2005-Present**

Member of advisory board in charge of producing the Association of Mathematics Teacher Educators (AMTE) newsletter, *Connections*. The board proofs newsletters, reviews submissions, proposes topics to include, and writes articles for the newsletter, which is printed three times per year.

**Professional Development of Mathematics Teachers****The Math Forum @ Drexel University** **2008-Present**

- KIPP Freedom Academy – Camden, New Jersey  
 Multiple day workshops provided to 5 middle grades teachers as part of their school membership for the Problems of the Week (PoWs). Focus: presenting the PoWs and how to effectively use them with students, as well as providing observations/feedback to teachers related to problem solving in mathematics, Grades 5 through 8.
- National Science Digital Library (NSDL) Materials Development Institute – Philadelphia, Pennsylvania  
 Four-day workshop with 18 middle and secondary teachers from across the United States and Canada. Focus: designing mathematics professional development through on-line courses that will be implemented through the Math Forum.
- West Chester Math and Technology Conference – Philadelphia, Pennsylvania  
 One-day workshop with 43 middle and secondary teachers invited from across the state of Pennsylvania. Focus: presenting the PoWs and how to effectively use them with students.

- Temple University Partnership Schools Summer PD – Philadelphia, Pennsylvania  
Twice a week workshops, over four weeks, for 33 Grades Kindergarten through 8 teachers from the School District of Philadelphia. Focus: using measurement activities and working with teachers in a lab school setting, including observations and planning.

### ***Connected Mathematics Project (CMP)***

**1999-2005**

- Madison School District – Phoenix, Arizona  
Multiple year, weeklong summer institutes with 83 middle grades teachers using Grade 6 CMP. Focus: to provide support for implementing CMP units, including specific lessons, analyzing student work, using assessments, and other aspects related to implementing CMP.
- Durham Public Schools – Durham, North Carolina  
Multiple year, weeklong summer institutes with 54 middle grades teachers using Grade 6 CMP. Focus: to provide support for implementing CMP units, including specific lessons, analyzing student work, using assessments, and other aspects related to implementing CMP.
- Cartwright School District – Phoenix, Arizona  
Eight monthly workshops over two years with 17 middle grades teachers using Grade 6 CMP. Focus: to provide support for implementing CMP units by focusing on one specific unit per month over eight sessions.
- Kingman School District – Kingman, Arizona  
Multiple year, 3-day summer institutes with 38 middle grades teachers using Grades 6 through 8 CMP. Focus: to provide support for implementing CMP units, including specific lessons across the curriculum focused on algebra and geometry, analyzing student work, using assessments, and other aspects related to implementing CMP.
- Phoenix Elementary School District – Phoenix, Arizona  
One-day workshop with 21 middle grades teachers using Grades 6 through 8 CMP materials. Focus: to support teachers in aligning district curriculum materials with newly adopted CMP materials.
- Cave Creek School District – Cave Creek, Arizona  
One-day workshop with 26 middle grades teachers using Grades 6 through 8 CMP materials. Focus: to provide support for implementing CMP by highlighting the philosophy of the CMP, the materials provided, and how to use the Teacher's Edition.
- Multiple school districts – Tulsa, Oklahoma  
Two-day workshop with 31 middle grades teachers using Grade 8 CMP materials. Focus: to provide support for implementing CMP units, including specific lessons, analyzing student work, using assessments, and other aspects related to implementing CMP.

## **CURRENT AND PENDING RESEARCH PROJECTS**

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### ***The Professional Online Mathematics Learning Network for Teachers (POML-NeT)***

U.S. Department of Education (IES) project SUBMITTED from Drexel University  
2009 – 2012: \$1,491,707  
Co-Principal Investigator – 3 calendar months

## **RESEARCH ASSISTANTSHIPS**

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**Center for the Study of Mathematics Curriculum (CSMC)** August 2004–May 2008  
Graduate Research Assistant on the National Science Foundation (NSF) sponsored project at the University of Missouri. The CSMC analyzes US state curriculum documents, as well as current K-8 mathematics curricula. I was involved with this project throughout my doctoral program. Data analysis for this project was based in qualitative methodology, but did include some mixed methods analysis.

**Researching Alternative Certification Models (ReSMAR<sup>2</sup>T)** June 2006–May 2008

Graduate Research Assistant on the National Science Foundation (NSF) sponsored project at the University of Missouri. The ReSMAR<sup>2</sup>T project is a 5-year longitudinal study of teachers' pedagogical content knowledge development through an alternative certification program for middle and secondary math and science teachers. I was involved with this project from the inception. We collected video data of multiple teacher observations, multiple interviews from each teacher, and artifacts from initial data collection, as well as observations. Data analysis was primarily based in qualitative methodology, which we analyzed with NVivo software.

**Middle School Mathematics Study (MS)<sup>2</sup>** August 2004–May 2005

Graduate Research Assistant on the United States Department of Education sponsored project. The (MS)<sup>2</sup> project was a 4-year longitudinal study analyzing the impact of middle school curriculum on teachers and students. I was involved with this project during the data analysis phase. Data analysis was both quantitative for this project, using SPSS, and qualitative, analyzing artifacts and survey responses provided by participants.

**AWARDS AND SCHOLARSHIPS**

- MU COE *High Flyer* for Excellence in the Scholarship of Teaching Fall 2008
- Dr. John Bies International Travel Scholarship for ABD Doctoral Students Fall 2007
- MU Mathematics Education Doctoral Fellowship Fall 2007
- Dr. Mary Jane Lang Doctoral Scholarship Fall 2007
- MU COE *High Flyer* for Excellence in the Scholarship of Teaching Fall 2006
- MU Graduate Professional Council Travel Scholarship Fall 2006
- MU Mathematics Education Doctoral Fellowship Fall 2006
- Robert M. Frank Fellowship Fall 2006
- MU Graduate Professional Council Travel Scholarship Fall 2005
- MU Mathematics Education Doctoral Fellowship Fall 2005
- Walter Scott Monroe Research Fellowship Fall 2005
- MU Mathematics Education Doctoral Fellowship Fall 2004

**PUBLICATIONS****Refereed Journal Articles**

Olson, T. A., **Regis, T. P.**, & Papick, I. J. (in press). Pattern problems in middle grade mathematics curricula. *Investigations in Mathematics Learning*.

Papick, I. J., Olson, T. A., & **Regis, T. P.** (in press). Analyzing numerical and geometric pattern problems in middle grade mathematics curricula. *Investigations in Mathematics Learning*.

Reys, B. J., Chval, K. B., Dingman, S., McNaught, M., **Regis, T. P.**, & Togashi, J. (2007). Grade-level learning expectations: A new challenge for elementary mathematics teachers. *Teaching Children Mathematics*, 14(1), 6-11.

- Regis, T. P.**, Appova, A., Reys, B. J., & Townsend, B. E. (2006). What role do textbooks play in U.S. middle school mathematics classrooms? *Taiwan Journal of Mathematics Teachers*, 5, 10-20.
- Regis, T. P.** (2006) Challenging preservice teacher expectations for their students: A response. *AMTE Connections*, 15(2), 9-10.
- Flores, A., & **Regis, T. P.** (2003). How many times does a radius square fit into the circle? *Mathematics Teaching in the Middle School*, 8(7), 363-368.

### Refereed Book Chapters

- McClain, K., Leckman, J., **Regis, T. P.**, & Schmitt, P. (2006). Technology as a tool for improving teachers' and students' knowledge of the big ideas in statistics. In P. Elliot (Ed.) *National Council of Teachers of Mathematics 2006 Yearbook: Thinking and reasoning with data and chance*. Reston, Virginia: NCTM.

### Refereed Proceedings or Symposium Publications

- Arbaugh, F., Chval, K., Jackson, C., Webb, M., & **Regis, T. P.** (in review). The growth of mathematics teachers' knowledge related to instruction. Paper submitted for presentation at the American Educational Research Association (AERA) Annual Meeting: San Diego, California.
- Regis, T. P.**, & Olson, T. A. (in press). *Towards a coherent vision of pattern problems in middle grades mathematics curricula*. Paper accepted for presentation at the Hawaii International Conference on Education (HICE): Honolulu, Hawaii.
- Olson, T. A., **Regis, T. P.**, & Papick, I. J. (2007). Some perspectives on patterns in middle school mathematics curricula. In G. T. Papanikos & V. Akis (Eds.), *Proceedings of the International Conference on Mathematics, Statistics, and Mathematics Education*. Athens Institute for Education and Research (ATINER): Athens, Greece.
- Regis, T. P.**, & Teuscher, D. (2006). From standards to learners: How much intended curriculum are students experiencing? In S. Alatorre, J. L. Cortina, M. Sáiz, & A. Méndez (Eds.), *Proceedings of the Twenty-Eighth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Universidad Pedagógica Nacional: Mérida, Yucatán, México.
- Tarr, J. E., Chavez, Ó., Appova, A., & **Regis, T. P.** (2005). Discordant implementation of mathematics curricula by middle school teachers. In G. M. Lloyd, M. Wilson, J. L. M. Wilkins, & S. L. Behm (Eds.), *Proceedings of the Twenty-Seventh Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. ERIC Clearinghouse for Science, Mathematics, and Environmental Education: Roanoke, Virginia.

## Curriculum Materials Development

McConnell, J. W., Feldman, C. H., Heeres, D., Kallemeyn, E., Ortiz, E., **Regis, T. P.**, Singer, M. F., Winningham, N., & Usiskin, Z. (2008). *The University of Chicago School Mathematics Project: Pre-transition mathematics*. Desoto, Texas: Wright Group/McGraw-Hill.

## Contributions to Other Scholarly Publications and Projects

### Acknowledge in:

Reys, R. E., Lindquist, M. M., Lambdin, D. V., & Smith, N. L. (2007). *Helping children learn mathematics* (8th ed.). Hoboken, NJ: John Wiley & Sons.

*Note:* I was involved in the editing process of the Data Analysis and Probability chapter of this book under the guidance of Dr. Robert E. Reys.

Corbett, D., Wilson, B., & Williams, B. (2002). *Effort and Excellence in Urban Classrooms: Expecting – and getting – success with all students* (pp. 72-80). New York: Teachers College Press.

*Note:* This chapter was written about my classroom and students when I was teaching 4<sup>th</sup> grade.

### Featured at:

<http://mathedology.ed.asu.edu/database.asp>

*Note:* A website sponsored by the Math-ed-ology Project at Arizona State University. A complete 90-minute math lesson that I taught to a 6<sup>th</sup> grade class in Phoenix is available to view.

## PRESENTATIONS

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### International Presentations

**Regis, T. P.** & Olson, T. A. (2009, January). *Towards a coherent vision of pattern problems in middle grades curricula*. Presented at the Hawaii International Conference on Education, Honolulu, Hawaii.

Olson, T. A., **Regis, T. P.**, & Papick, I. J. (2007, June). *Some perspectives on patterns in middle school mathematics curricula*. Presented at the International Conference on Mathematics and Statistics, Athens, Greece.

**Regis, T. P.**, & Teuscher, D. (2006, November). *From standards to learners: How much intended curriculum are students experiencing?* Presented at the Annual Conference of the Psychology of Mathematics Education, North American Chapter, Mérida, Yucatán, México.

Tarr, J. E., Chavez, Ó., Appova, A., & **Regis, T. P.** (2005, October). *Discordant implementation of mathematics curricula by middle school teachers*. Presented at the Annual Conference of the Psychology of Mathematics Education, North American Chapter, Roanoke, Virginia.

## National Presentations

- Regis, T. P.** (2009, April). *Planning with inquiry-based mathematics programs: Complexities and influences*. Presented at the Annual Conference of the National Council of Teachers of Mathematics, Washington, D.C.
- Regis, T. P.** (2008, February). *Analyzing how grade 4 teachers plan to teach inquiry-based curriculum materials and the influences on their preparation of mathematics lessons*. Poster session at the Research Conference of the Center for the Study of Mathematics Curriculum, Phoenix, Arizona.
- Webb, M., Pomerence, S., **Regis, T. P.**, Appova, A., & Reys, B. J. (2008, February). *The influence of NCTM's Curriculum Focal Points on state-level mathematics curriculum standards*. Poster session at the Research Conference of the Center for the Study of Mathematics Curriculum, Phoenix, Arizona.
- Pomerence, S., **Regis, T. P.**, Jackson, C., & Webb, M. (2008, February). *Orientations of mathematics preservice teachers in alternative certification and traditional programs*. Poster session at the Research Conference of the Center for the Study of Mathematics Curriculum, Phoenix, Arizona.
- Olson, T. A., **Regis, T. P.**, & Papick, I. J. (January, 2008). *Perspectives on the exploration of patterns in middle school mathematics curricula and related implications for teacher education*. Presented at the Annual Conference of the Association of Mathematics Teacher Educators, Tulsa, Oklahoma.
- Pomerence, S., Webb, M., Jackson, C., **Regis, T. P.**, & Chval, K. (January, 2008). *Examining and discussing preservice mathematics teachers' orientations*. Presented at the Annual Conference of the Association of Mathematics Teacher Educators, Tulsa, Oklahoma.
- Arbaugh, F., Lannin, J. K., Chval, K. B., **Regis, T. P.**, Pomerence, S., & Appova, A. (2007, March). *Lesson planning and video analysis as data tools for assessing PCK*. Presented at the Research Pre-session of the annual meeting of the National Council of Teachers of Mathematics, Atlanta, Georgia.
- Olson, T. A., **Regis, T. P.**, & Papick, I. J. (2007, February). *Some perspectives on patterns in middle school mathematics curricula*. Poster session at the Research Conference of the Center for the Study of Mathematics Curriculum, Phoenix, Arizona.
- Lannin, J. K., Chval, K. B., Arbaugh, F., Appova, A., Nivens, R., Olson, T. A., Pomerence, S., & **Regis, T.P.** (2007, January). *Studying alternative certification in mathematics: A tale of two research projects*. Presented at the Annual Conference of the Association of Mathematics Teacher Educators, Irvine, California.
- Chval, K. B., Lannin, J. K., Sutter, A., **Regis, T. P.**, Pomerence, S., & Jackson, C. (2007, January). *Using video and written cases to prepare future mathematics teacher educators*. Presented at the Annual Conference of the Association of Mathematics Teacher Educators, Irvine, California.

- Nivens, R., Olson, T. A., **Regis, T. P.**, & Teuscher, D. (2006, April). *Applying Navigations Series Activities in Your Class*. Presented at the Annual Conference of the National Council of Teachers of Mathematics, St. Louis, Missouri.
- Tarr, J. E., Reys, B., Chavez, Ó., **Regis, T. P.**, & Appova, A. (2006, April). *The relationship between student achievement and mathematics curricula*. Presented at the Annual Conference of the National Council of Teachers of Mathematics, St. Louis, Missouri.
- Tarr, J. E., Chavez, Ó., **Regis, T. P.**, & Appova, A. (2006, April). *Fidelity of implementation: Linking student achievement and mathematics curriculum*. Presented at the Annual Conference of the National Council of Supervisors of Mathematics, St. Louis, Missouri.
- Regis, T. P.**, Teuscher, D. (2006, February). *Mapping curriculum from state grade level expectations to textbook lessons taught*. Poster session at the Research Conference of the Center for the Study of Mathematics Curriculum, Phoenix, Arizona.
- Regis, T. P.**, Teuscher, D., Olson, T. A., & Nivens, R. (2006, January). *For doctoral students: Continuing to grow ... working together to do so*. Presented at the Annual Conference of the Association of Mathematics Teacher Educators, Tampa Bay, Florida.
- Regis, T. P.** (2005, February). *The (MS)<sup>2</sup> Textbook-Use Diary: An instrument for documenting curriculum material usage by teachers*. Poster session at the Research Conference of the Center for the Study of Mathematics Curriculum, Phoenix, Arizona.
- Barker, D., & **Regis, T. P.**, (2005, January). *Talk time discussion for doctoral students only: A chance to swap stories, compare notes and make professional contacts that will follow you through your career*. Presentation at the Annual Conference of the Association of Mathematics Teacher Educators, Dallas, Texas.
- McClain, K., Cobb, P., Leckman, J., **Regis, T. P.**, Schmitt, P., Ashley, L., & Syman, R. (2003, April). *The role of institutional context in enabling or constraining professional teaching communities as sites for teacher change in mathematics*. Presentation at the Research Pre-session of the annual meeting of the National Council of Teachers of Mathematics, San Antonio, Texas.
- Schmitt, P., Gordon, D., **Regis, T.P.**, & James, S. (2003, April). *Seven years into one school district's mathematical transformation: Are we there yet?* Presentation at the annual meeting of the National Council of Supervisors of Mathematics, San Antonio, Texas.

### **Refereed Regional and State Presentations**

- Regis, T. P.**, & Teuscher, D. (2007, October). *Following the Intended Curriculum Through the Implementation Process*. Presented at the Regional Conference of the National Council of Teachers of Mathematics, Kansas City, Missouri.

- Regis, T. P.**, Nivens, R., Olson, T. A., & Teuscher, D. (2006, September). *Using Navigations activities with data analysis and probability*. Presented at the Regional Conference of the National Council of Teachers of Mathematics, Chicago, Illinois.
- Regis, T. P.**, & Teuscher, D. (2005, December). *Analyzing data in middle school classrooms – getting our hands dirty with the NCTM’s Navigations series*. Presented at the Annual Meeting of the Missouri Council of Teachers of Mathematics, Columbia, Missouri.
- Regis, T. P.**, Tarr, J. E., & Appova, A. (2005, December). *Do textbooks matter? Textbooks + teachers + student achievement*. Presented at the Annual Meeting of the Missouri Council of Teachers of Mathematics, Columbia, Missouri.
- Leckman, J., McClain, K., **Regis, T. P.**, & Schmitt, P. (2003, November). *Challenging data or challenging the data?* Presentation at the Regional Conference of the National Council of Teachers of Mathematics, Charleston, South Carolina.
- Regis, T. P.** (2002, October). *Beyond “pi are squared.”* Presentation at the regional meeting of the Investigations and Connected Math Project User’s Conference, Phoenix, Arizona.

### Other Presentations

- Regis, T. P.**, & Teuscher, D. (2006, April). *From standards to learners: How much intended curriculum are students experiencing?* Science and Mathematics Education Research Colloquium Series, University of Missouri-Columbia.
- Regis, T. P.**, Lannin, J., Chval, K., & Sutter, A. (2006, March). *Design of an elementary mathematics/methods course: Parts I and II*. College of Education Research Day, University of Missouri-Columbia.
- Lannin, J., Sutter, A., & **Regis, T. P.** (2006, March). *Course design issues: Involving graduate and undergraduate students in thinking about teaching*. Science and Mathematics Education Research Colloquium Series, University of Missouri-Columbia.

### PROFESSIONAL MEMBERSHIPS

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- National Council of Teachers of Mathematics (NCTM)
- Association of Mathematics Teacher Educators (AMTE)
- Pennsylvania Association of Mathematics Teacher Educators (PAMTE)
- Psychology of Mathematics Education, North American Chapter (PME-NA)
- Kappa Delta Pi (ΚΔΠ)
- National Education Association (NEA)
- University of Missouri Alumni Association
- Arizona State University Alumni Association
- Western Michigan University Alumni Association