

Linda Reichwein Zientek Assistant
Professor College of Sciences

Mathematics and Statistics

Degrees Earned Texas A&M University Curriculum and Instruction Ph. D., 2006
(Mathematics Education) Sam Houston State University (Mathematics) Sam M.S., 1997
Houston State University (Mathematics with a Minor in Statistics) B.S., 1995

Peer-Review Publications and Artistic Performances/Exhibitions

- Young, E., & Zientek, L. R. (2011). Fraction operations: An examination of prospective teachers' errors, confidence, and bias. *Investigations in Mathematics Learning*, 4(1), 1-24.
- Matteson, S. M., Swarthout, M., & Zientek, L. R. (2011). Student motivation: Perspectives from mathematics teachers. *Action in Teacher Education*, 33, 283-297 doi: 10.1080/01626620.2011.592123
- Zientek, L. R., Carter, T. A., Taylor, J. M., & Capraro, R. M. (2011). Preparing Prospective Teachers: An Examination of Attitudes Toward Statistics. *The Journal of Mathematical Sciences and Mathematics Education*, 5, 25-38
- Zientek, L. R. & Thompson, B. (2010). Using commonality analysis to quantify contributions that self-efficacy and motivational factors make in mathematics performance. *Research in The Schools*, 17, 1-12.
- Zientek, L. R., Yetkiner, Z. E., & Thompson, B. (2010). Characterizing the mathematics anxiety literature using confidence intervals as a literature review mechanism. *The Journal of Educational Research*, 103, 424-438.
- Zientek, L. R., & Yetkiner, Z. E. (2010). Pooled Variance. In N. J. Salkind (Ed.), *Encyclopedia of Research Design*, 1050-1052. Thousand Oaks, CA: Sage.
- Zientek, L. R., & Thompson, B. (2009). Matrix Summaries Improve Research Reports: Secondary Analyses Using Published Literature. *Educational Researcher*, 38, 343-352.
- Capraro, R. M., Burlbaw, L.M., & Zientek, L. R. (2009). Content and pedagogical knowledge in Colorado teachers? Mathematics exams at the turn of the 20th century. *Curriculum History 2009*, 158-174.
- Zientek, L. R., & Thompson, B. (2008). Preparing high-quality mathematics and science teachers: Are we meeting the challenge? *Research in The Schools*, 15, 1-19.
- Zientek, L. R., Capraro, M. M., & Capraro, R. M. (2008). Reporting practices in quantitative teacher education research: One look at the evidence cited in the AERA panel report. *Educational Researcher*, 37, 208-216.
- Zientek, L. R. (2007). Preparing high quality teachers: Views from the classroom. *American Educational Research Journal: Teaching, Learning, and Human Development*, 44, 959-1001.
- Zientek, L. R., & Thompson, B. (2007). Applying the bootstrap to the multivariate case: Bootstrap factor analysis. *Behavior Research Methods*, 39, 318-325.
- Zientek, L. R., & Gann, L. (2007). College readiness vertical teams: An inside view. *Texas Community College Teachers Association Messenger*, XLIII, 6.
- Zientek, L. R., & Thompson, B. (2006). Commonality analysis: Partitioning variance to facilitate better understanding of data. *Journal of Early Intervention*, 28, 299-307.

Zientek, L.R., Wahrmond, T., & Garlick, B. (2006, July). Essential components of effective certification programs. *Association of Mathematics Teacher Educators (AMTE) Update*.

Zientek, L. R., Kadhi, T. G., & Capraro, R. M. (2005). Alternative certification programs analysis. *Academic Exchange Quarterly*, 9, 121-125.

Book Review (Peer-Reviewed)

Book Review: Exploratory and confirmatory factor analysis: Understanding concepts and applications. B. Thompson. Washington, DC: American Psychological Association. 2004. *Structural Equation Modeling: A Multidisciplinary Journal*, 15, 729-734.

Research Monographs and Technical Reports Funded External Grants

Peer-Review Presentations/Posters

National/International

Zientek, L. R., Fong, C., Phelps, J., Griffin, M., Yetkiner, Z. E. (Accepted 2011, November). Research in developmental education classrooms. Paper to be presented at the Annual Conference of the American Mathematical Association of Two-Year Colleges. Austin, TX.

Zientek, L. R., Fong, C. J., Yetkiner, Z. E., & Phelps, J. (2011, April). *The Role of Students' Self--Efficacy in Developmental Mathematics Across Ethnicity*. Paper presented at the Annual Meeting of The American Educational Research Association, New Orleans, LA.

Zientek, L. R., Matteson, S. M., Mittag, K. C., & Taylor, S. (2010, November). Evaluating the Impact of Virtual Manipulatives on Teacher Quality. Paper presented at the Annual Conference of the School Science and Mathematics Association. Fort Myers, Florida.

Mittag, K. C., & Zientek, L. R.. (2010, November). Fun with Probability Simulations. Paper presented at the Annual Conference of the School Science and Mathematics Association. Fort Myers, Florida.

Taylor, S., Mittag, K. C., & Zientek, L. R. (2009, October). *Bar graphs and histograms: What's so hard to understand?* Paper presented at the Annual Conference of the School Science and Mathematics Association Conference, Reno NV.

Mittag, K. C., Taylor, S., & Zientek, L. R. (2009, October). *The ferris wheel goes round and round*. Paper presented at the Annual Conference of the School Science and Mathematics Association Conference, Reno NV.

Yetkiner, E., Capraro, R. M., Zientek, L. R., & Thompson, B. (2008, July). *The importance of effect sizes in mathematics education studies*. Paper presented at the annual meeting of the International Congress on Mathematics Education, Monterrey, Mexico.

Zientek, L. R., Capraro, M. M., & Capraro, R. M. (2008, March). *Reporting practices in quantitative teacher education research: One look at the evidence cited in the AERA panel report*. In Suzanne Wilson (Chair), *Recommended Reporting Practices in Teacher Education*. Symposium presented at the annual meeting of the American Educational Research Association, New York.

Zientek, L. R., Carter, T. A., Taylor, J. M., & Capraro, R. M. (2007, November). *Prospective teachers' attitudes and understandings of statistical concepts*. Paper presented at the

- annual meeting of the School Science and Mathematics Association, Indianapolis, IN.
- Allen, D., Zientek, L. R., Wilhite, P. A., Griffin, M., & White, G. (2006, November). *College algebra across Texas – Survey results*. Paper presented at the annual meeting of the American Mathematical Association of Two-Year Colleges, Cincinnati, OH.
- Zientek, L. R., Capraro, R. M., & Capraro, M. M. (2006, April). How do new teachers differ on self-efficacy and level of preparedness by certification route? In L. R. Zientek (Chair), *Research Findings and Issues for Alternative Certification Routes and Influences of Recent Federal Legislation*. Symposium conducted at the annual meeting of the American Educational Research Association, San Francisco, CA.
- Kulm, G., Capraro, R. M., Capraro, M. M., Carter, T., Li, X., Sahin, A., Zientek, L., English, S., & Jones, C. (2005, April). *How do students in the middle grades represent data?* Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Anaheim, CA.
- Carter, T. A., Zientek, L., R., & Capraro, R., M. (2005, January). *Teaching statistical concepts: Are future teachers prepared?* Paper presented at the annual meeting of the Association of Mathematics Teacher Educators, Dallas, TX.
- Carter, T. A., Zientek, L., R., & Capraro, R., M. (2005, February). *Preservice teachers' understanding of probability and statistics*. Paper presented at the annual meeting of the Research Council for Mathematics Learning, Little Rock, AR.
- Zientek, L. R., Kadhi, T. G., & Capraro, R. M. (2003, February). *Community college's expanding role in teacher preparation*. Paper presented at the annual meeting of the Association of Mathematics Teacher Educators, Atlanta GA.

Regional

- Kraha, A., Turner, H., Nimon, K., Zientek, L. R., & Henson, R. (2011, February). Evaluating predictor importance: Tools to support interpreting multiple regression. Paper session Presented at The Annual Meeting of The Southwestern Educational Research Association, San Antonio, Tx.
- Zientek, L. R., & Thompson, B. (2009, February). *Heuristic examples show how correlation matrices can benefit research*. Paper presented at the Annual Conference of the Southwest Educational Research Association, San Antonio, TX.
- Seeley, C., Wohlgelegen, J., & Zientek, L. R. (2008, February). *College-readiness standards and the development of a new fourth year of mathematics course*. Paper presented at the Texas Community College Teachers Organization, Dallas, TX.
- Zientek, L. R., Capraro, M. M., Capraro, R. M., & Ebrar, Y. (2008, February). *Reporting practices in teacher education: The importance of structure coefficients*. Paper presented at the annual meeting of the Southwest Educational Research Association, New Orleans, LA.
- Allen, D., Griffin, M., Wohlgelegen, J., & Zientek, L. R. (2007, July). *Moving from high school mathematics to college mathematics: What's going on?* Paper presented at the Conference for the Advancement of Mathematics Teachers, San Antonio, TX.
- Schneider, C., Capraro, R. M., & Zientek, L. R. (2007, July). *High school to higher ed: What do the mathematics data show?* Presented at the American Mathematical Association of Two-Year Colleges Southwest Regional Conference, San Antonio, TX.

- Zientek, L. R., & Thompson, B. (2007, February). *Variations in preparation needs by teaching level?* Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.
- Zientek, L. R. (2005, February). *Applying the bootstrap to the multivariate case: Bootstrap factor analysis*. One-hour training session presented at the annual meeting of the Southwest Educational Research Association, New Orleans, LA.
- Zientek, L. R., Carter, T. A., Taylor, J. M., & Capraro, R. M. (2005, February). *Future teachers' understanding of statistical concepts*. Paper presented at the annual meeting of the Southwest Educational Research Association, New Orleans, LA.
- Zientek, L. R. (2005, February). *Investigating the relationship between variable correlations and coefficient alpha*. Paper presented at the annual meeting of the Southwest Educational Research Association, Dallas, TX.
- Zientek, L. R. (2004, February). *Commonality analysis: Partitioning variance*. Paper presented at the annual meeting of the Southwest Educational Research Association, Dallas, TX.
- Zientek, L. R. (2004, February). *Applying the bootstrap to the multivariate case: Bootstrap factor analysis*. Paper presented at the annual meeting of the Southwest Educational Research Association, Dallas, TX.
- Zientek, L. R. (1998, March). *Fundamental similarity of matrix symbols*. Paper presented at the annual meeting of the Texas Section of the Mathematical Association of American Meeting, Dallas, TX.

State

- Taylor, S., Mittag, K. C., & Zientek, L. R. (2011, February). Using data for z-scores and confidence intervals. Conference on the Teaching of Mathematics 6 – 12, SHSU, Huntsville, TX.
- Zientek, L. R., Yetkiner, Z. E., & Griffin, M. (2009, October). *An investigation of factors that influence students' academic success in developmental mathematics courses*. Charles A. Dana Center Higher Education Conference, Austin, TX.
- Zientek, L. R. (2008, October). *Preparing mathematics and science teachers: Implications for research and teacher training*. Charles A. Dana Center Higher Education Conference, Austin, TX.
- Beauford, J., Vasquez-Mireles, S., Zientek, L. R., Westbrook, V., Wohlgehagen, J., & White, G. (2007, October). *P-16 vertical and horizontal alignment in mathematics and science: What does this mean for faculty?* Dana Center October Pre-service Conference, Austin TX.
- Weilmuenster, J., Wohlgehagen, J., & Zientek, L. R. (2007, June). *P-16 connections: Creating a cohesive transition into higher education*. Administrator's Conference, San Antonio, TX.
- Allen, D., Zientek, L. R., Wilhite, P. A., & Griffin, M. (2006, October). *College algebra as a transition course – What the colleges want to see?* Dana Center October Pre-service Conference, Austin TX.

Local

- Zientek, L. R., (2006, July). Invited presentation to speak to participants of the PLC-MAP Project at Texas A&M University. The presentation focused on investigations of differences between alternative and traditionally certified teachers with an emphasis on community college programs for mathematics and science teachers.

Zientek, L. R., Kadhi, T. G., & Capraro, R. M. (2004, February). *Alternative certification program analysis*. Paper presented at the annual meeting of the Educational Research Exchange, College Station, TX.

Zientek, L. R. (2003, February). *Community colleges and alternative certification*. Paper presented at the annual meeting of the Educational Research Exchange, College Station, TX. [**Winner, Gerald Kulm, Curtis D. Robert Endowed Professor of Mathematics Education Outstanding Paper Award**]

INVITED WORKSHOPS/PRESENTATIONS

Zientek, L. R., Crider, P., Wetzel, K., & Harris-Hardland, G. (2010, March). Developmental Education Research and Initiatives. Preconference workshop presented at the Annual Meeting of the Texas Mathematical Association of Two-Year Colleges, Houston, TX.

Thompson, B., Onwuegbuzie, A., & Zientek, L. R. (2010, October). Data Collection, Analysis, and Dissemination. Workshop presented for the Texas STEPs – Workshop II. Houston, TX.

Zientek, L. R. (March, 2011). An overview of the research process. Presented to a graduate class via Skype at Bogazici University

Work or Professional Experiences

Fall 2007 – Present Assistant Professor

Aug 1999 – 2007 Blinn College Mathematics Instructor (full-time) Aug 1997 – Aug 1999 Blinn College

Mathematics Instructor (part-time/adjunct) July 1997 – Aug 1997 Blinn College Learning Center Assistant

Jan 1996 – May 1997 SHSU Teaching Assistant Oct 1994 – May 1995 SHSU Research Assistant

Honors and Awards

Named Outstanding Mathematics Senior 1995 (Sam Houston State University)

Community Colleges and Alternative Certification Outstanding Paper in

Mathematics Education, ERE, 2003 Named to Who's Who Among America's

Teachers, Who's Who Among American Women, Who's Who Among American

Education, & Who's Who in Science and Engineering 2007 Teaching, Learning,

and Culture Dissertation of the Year Award from Texas A&M

Other Competencies

Texas Community College Teacher's Association (TCCTA) Mathematics Section Secretary, Vice Chair, and Chair (2002-2004), President TexMATYC (2004-2006), SERA Newsletter Editor (2007-2008), Texas Higher Education Coordinating Board College Readiness Vertical Team Member (Phase 1), 2010 – 2012 SERA Conference Program Chair, President, and Immediate-Past President & SERA Deputy Executive Director