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**Associate Professor**  
**Sam Houston State University**  
**Department of Mathematics and Statistics**  
**Huntsville, Texas 77341**  
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## **EDUCATIONAL EXPERIENCE**

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

Dissertation: *Do Teachers Differ by Certification Route? Novice Teachers' Sense of Self-Efficacy, Commitment to Teaching, and Preparedness to Teach.* **Department of Teaching, Learning, and Culture 2007 Dissertation of the Year from Texas A&M University**

## **PROFESSIONAL EXPERIENCE**

Fall 2007 – Present Associate/Assistant Professor  
Aug 1997 – 2007 Blinn College Mathematics Instructor  
July 1997 – Aug 1997 Blinn College Learning Center Assistant

## **RESEARCH INTERESTS**

My research interests include mathematics education, the preparation of mathematics teachers, community college and P16 initiatives, and quantitative research methods. I am interested in students' self-efficacy beliefs, the origins of these beliefs, and the impact these beliefs have on academic achievement.

## **PUBLICATIONS**

### **Peer-Reviewed Journal Publications**

34. **Zientek, L. R.**, Fong, C. J., & Phelps, J. (Accepted). Sources of mathematics self-efficacy of community college students enrolled in developmental mathematics. *Journal of Further and Higher Education*.
33. **Zientek, L. R.**, Nimon, K., & Brown, B. (2016). Analyzing data from a pretest-posttest control group design: The importance of statistical assumptions. *European Journal of Training and Development*, 40, 638 - 659.

32. Nimon, K., **Zientek, L. R.**, & Kraha, A. (2016). All-possible-subsets for MANOVA and factorial MANOVAs: Less than a weekend project. *International Journal of Adult Vocational Education and Technology*, 7(2), 88-112.
31. Nimon, K., **Zientek, L. R.**, & Thompson, B. (2015). Bias in squared regression structure coefficients. *Frontiers in Quantitative Psychology and Measurement*. doi:10.3389/fpsyg.2015.00949
30. **Zientek, L. R.**, Skidmore, S. T., Saxon, D. P., & Edmonson, S. (2015). Technology Priorities and Preferences of Developmental Mathematics Instructors. *Community College Enterprise*, 21, 27-46.
29. Newell, A., **Zientek, L. R.**, Tharp, B., Vogt, G., & Moreno, N. (2015). Students' attitudes towards science as predictors of gains on student content knowledge: Benefits of an after-school program. *School Science and Mathematics Journal*, 115, 216-225.
28. Fong, C. J., **Zientek, L. R.**, & Phelps, J. M. (2015). Between and within ethnic differences in strategic learning: A study of developmental mathematics students. *Social Psychology of Education: An International Journal*, 18, 55-74. doi:10.1007/s11218-014-9275-5
27. Skidmore, S. T., **Zientek, L. R.**, Saxon, D. P., & Edmonson, S. (2014). The impact of generational status on instructor's reported technology usage. *Contemporary Educational Technology*, 5, 179-197.
26. **Zientek, L. R.**, Schneider, C., & Onwuegbuzie, A. J. (2014). Placement and success: Developmental mathematics instructors' perceptions about their students. *The Community College Enterprise*, 20(1), 67-84.
25. Skidmore, S. T., **Zientek, L. R.**, Combs, J. P., Fuller, M. B., Hirai, M., Price, D., & Moore, G. W. (2014). Empirical Reporting Practices in CCJRP and JDE from 2002 to 2011: A Systematic Review. *Community College Journal of Research and Practice*, 38, 927-946.
24. **Zientek, L. R.**, Younes, R., Nimon, K., Mittag, K. C., & Taylor, S. (2013). Fractions as a foundation for algebra within a sample of prospective teachers. *Research in The Schools*, 20, 76-95.
23. Matteson, S. M., **Zientek, L. R.**, & Ozel, S. (2013). Identifying what inservice teachers want in professional development experiences. *Teacher Education and Practice*, 26, 569-580.
22. **Zientek, L. R.**, Yetkiner, Z. E., Fong, C., & Griffin, M. (2013). Student success in developmental mathematics courses. *Community College Journal of Research and Practice*. 37, 990-1010.
21. Frels, R., **Zientek, L. R.**, & Onwuegbuzie, A. J. (2013). Differences of mentoring experiences across grade span among principals, mentors, and mentees. *Mentoring & Tutoring: Partnership in Learning*, 21, 28-58. **[Winner of the 2012 Distinguished Paper Award for the Mentorship and Mentoring Practices AERA SIG]**. Frels, R.,

- Zientek, L. R.**, & Onwuegbuzie, A. J. Differences of mentoring experiences across grade span among principals, mentors, and mentees
20. Taylor, J. M., **Zientek, L. R.**, & Matteson, S. M. (2013). Improving achievement in trigonometry by revisiting fractions operations. *Mediterranean Journal for Research in Mathematics Education*, 12, 135-153.
  19. **Zientek, L. R.**, Yetkiner Ozel, Z. E., Ozel, S., & Allen, J. (2012). Reporting confidence intervals and effect sizes: Collecting the evidence. *Career and Technical Education Research*, 37, 277-295.
  18. Kraha, K., Turner, H., Nimon, K., **Zientek, L. R.**, & Henson, R. (2012). Tools to support interpreting multiple regression in the face of multicollinearity. *Frontiers in Quantitative Psychology and Measurement*. doi:10.3389/fpsyg.2012.00044
  17. Nimon, K., **Zientek, L. R.**, & Henson, R. K. (2012). The assumption of a reliable instrument and other pitfalls to avoid when considering the reliability of data. *Frontiers in Quantitative Psychology and Measurement*. doi:10.3389/fpsyg.2012.00102
  16. **Zientek, L. R.**, & Yetkiner Ozel, Z. E. (2012). Self-reported reasons developmental mathematics students provided for not completing a mathematics course during their senior year of high school. *Mediterranean Journal for Research in Mathematics Education*.
  15. Young, E., & **Zientek, L. R.** (2011). Fraction operations: An examination of prospective teachers' errors, confidence, and bias. *Investigations in Mathematics Learning*, 4(1), 1-23.
  14. 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
  13. **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
  12. **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.
  11. **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.
  10. **Zientek, L. R.**, & Thompson, B. (2009). Matrix Summaries Improve Research Reports: Secondary Analyses Using Published Literature. *Educational Researcher*, 38, 343-352.
  9. 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.

8. **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.
7. **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.
6. **Zientek, L. R.** (2008). 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.
5. **Zientek, L. R.** (2007). Preparing high quality teachers: Views from the classroom. *American Educational Research Journal: Teaching, Learning, and Human Development*, 44, 959-1001.
4. **Zientek, L. R.**, & Thompson, B. (2007). Applying the bootstrap to the multivariate case: Bootstrap factor analysis. *Behavior Research Methods*, 39, 318-325.
3. **Zientek, L. R.**, & Thompson, B. (2006). Commonality analysis: Partitioning variance to facilitate better understanding of data. *Journal of Early Intervention*, 28, 299-307.
2. **Zientek, L.R.**, Wahrmond, T., & Garlick, B. (2006, July). Essential components of effective certification programs. *Association of Mathematics Teacher Educators (AMTE) Update*.
1. **Zientek, L. R.**, Kadhi, T. G., & Capraro, R. M. (2005). Alternative certification programs analysis. *Academic Exchange Quarterly*, 9, 121-125.

### **Grant Reports**

1. Skidmore, S. T., Saxon, D. P., **Zientek, L. R.**, & Edmonson, S. L. (2012). *Technology integration in developmental education in Texas*. (Contract No. 07272). Austin, TX: Texas Higher Education Coordinating Board.

### **Book Chapters**

2. **Zientek, L. R.**, & Cory, B. (2011). *Polygons*. In S. J. Greenwald & J. E. Thomley (Eds.), *Encyclopedia of Mathematics and Society*, 779-782. Pasadena, CA: Salem Press.
1. **Zientek, L. R.**, & Yetkiner, Z. E. (2010). Pooled variance. In N. J. Salkind (Ed.), *Encyclopedia of research design* (pp. 1050-1052). Thousand Oaks, CA: Sage.

### **Newsletter**

1. **Zientek, L. R.** (2015, July). Exploring data: The mean, median, & box-and-whisker plot. *LINK*, 5(3), 4-5.

### **Invited**

1. **Zientek, L. R.**, & Gann, L. (2007). College readiness vertical teams: An inside view. *Texas Community College Teachers Association Messenger*, XLIII, 6.

## **PRESENTATIONS**

### **National/International**

33. Dorsey, J., Rutschow, E. Z., Zientek, L. R., Samil-Shore, K. (2017, November). *Showing the data: Multiple studies of Dana Center Math Pathways (DCMP)*. Paper to be presented at the annual conference of the American Mathematical Association of Two-Year Colleges Conference, San Diego, CA.
32. Zientek, L. R., & Nolting, P. (2017, November). *Addressing math anxiety: Research findings and classroom practices*. Paper to be presented at the annual conference of the American Mathematical Association of Two-Year Colleges Conference, San Diego, CA.
31. Mittag, K. C., & Zientek, L. R. (2016, November). *Students Have Fun Rolling a Die to Discover the Central Limit Theorem*. Poster presented at the annual meeting of the American Mathematical Association of Two-Year Colleges, Denver, CO.
30. Nimon, K., & Zientek, L. R. (2016, April). *Interpreting canonical correlation results: Using YHAT software to analyze canonical variates*. Paper presented at the annual conference of the American Educational Research Association, Washington, DC.
29. Zientek, L. R., Almy, K., Dorsey, J., Stano, N., & Wilhite, P. (2016, March). *Implementing course redesigns: Curriculum options and measuring effect*. Presented at the 2016 at the National Math Summit: NADE preconference, Anaheim, CA.
28. Phelps, J., Sallee, L., Nolting, L., & Zientek, L. R. (2014, November). *Developmental mathematics summit study skills plan implementation*. Presented at the 2014 American Mathematical Association of Two-Year Colleges Conference, Nashville, TN.
27. Rosnowski, J., Phelps, J., Boylan, H., Treisman, U., Goossen, R., Kipple, K., Peeples, J., & Zientek, L. R. (2014, November). *National Summit on Developmental Mathematics: Continuing the Dialogue*. Panel presentation at the 2014 American Mathematical Association of Two-Year Colleges Conference, Nashville, TN.
26. Peeples, J., Ellis, W., Getz, A., Kipple, K., Zientek, L. R., & Nolting, P. (2014, August). *Innovative curricula for developmental mathematics*. Panel presentation at the Mathematical Association of America MathFest, Portland OR.
25. Zientek, L. R., Mittag, K. C., & Thompson, B. (2014, April). *Sources of self-efficacy of middle school Hispanic students*. Poster to be presented at the annual meeting of the National Council of Teachers of Mathematics, New Orleans, LA.
24. Nimon, K., Zientek, L. R., & Thompson, B. (2014, April). *Investigating bias in squared structure coefficients*. Paper to be presented at the annual meeting of the American Educational Research Association, Philadelphia, PA.
23. Zientek, L. R., Duranczyk, I., Mesa, V., & Schoen, S. (2013, October). *Community college research: Gathering evidence from a collection of dissertations*. Presentation at the Research Presession at the annual meeting of the American Mathematical Association of Two-Year Colleges.
22. Zientek, L. R., Fong, C., & Phelps, J. (2013, April). *The sources of self-efficacy of community college students in developmental mathematics*. Paper presented at the

- annual meeting of the American Educational Research Association, San Francisco, CA.
21. Skidmore, S., Zientek, L. R., Saxon, D. P., & Edmonson, S. (2013, April). *Instructional technology practices of developmental education faculty in Texas by generational classification*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
  20. Skidmore, S., & Zientek, L. R. (2012, November). *Developmental math educators' instructional technology priorities*. Poster presented at the annual meeting of the American Mathematical Association of Two-Year Colleges, Jacksonville, FL.
  19. Holland, D., Zientek, L. R., Nimon, K., Kraha, A., Johnson, U., Ponce, H., & Henson, R. (2012, October). *A reliability generalization study: The motivated strategies for learning questionnaire*. Poster presented at the annual meeting of the American Evaluation Association Conference, Minneapolis, MN.
  18. Nimon, K., Lane, F., Augilar, M. G., Carrero, K., Frear, S., Garrigue, M., Zimmerman, T., Zientek, L. R., & Henson, R. (2012, October). *Reliability generalization (RG): Examining reliability estimates of the organizational commitment questionnaire (OCQ)*. Paper presented at the annual meeting of the American Evaluation Conference, Minneapolis, MN.
  17. Frels, R., Zientek, L. R., & Onwuegbuzie, A. J. (2012, April). *Differences of mentoring experiences across grade span among principals, mentors, and mentees*. Paper presented at the annual meeting of the American Educational Research Association, Vancouver.
  16. Sharon, V., Jones, D., & Zientek, L. R. (2012, February). *Prospective teachers' ability to solve algebra equations*. Presentation at the annual meeting of the Research Council on Mathematics Learning, Charlotte, NC.
  15. Zientek, L. R., Fong, C., Phelps, J., Griffin, M., Yetkiner, Z. E. (2011, November). *Research in developmental education classrooms*. Paper presented at the annual meeting of the American Mathematical Association of Two-Year Colleges. Austin, TX.
  14. 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.
  13. 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 meeting of the School Science and Mathematics Association. Fort Myers, Florida.
  12. Mittag, K. C., & Zientek, L. R.. (2010, November). *Fun with probability simulations*. Presentation at the annual meeting of the School Science and Mathematics Association. Fort Myers, Florida.

11. Taylor, S., Mittag, K. C., & Zientek, L. R. (2009, October). *Bar graphs and histograms: What's so hard to understand?* Presentation at the annual meeting of the School Science and Mathematics Association Conference, Reno NV.
10. Mittag, K. C., Taylor, S., & Zientek, L. R. (2009, October). *The ferris wheel goes round and round.* Presentation at the annual meeting of the School Science and Mathematics Association Conference, Reno NV.
9. 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.
8. 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 conducted at the annual meeting of the American Educational Research Association, New York.
7. 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.
6. Allen, D., Zientek, L. R., Wilhite, P. A., Griffin, M., & White, G. (2006, November). *College algebra across Texas – Survey results.* Presentation at the annual meeting of the American Mathematical Association of Two-Year Colleges, Cincinnati, OH.
5. 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.
4. 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.
3. 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.
2. 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.
1. 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.

### **Presentations Chaired**

*Research Findings and Issues for Alternative Certification Routes and Influences of Recent Federal Legislation.* Organized symposium presented at the 2006 American Educational Research Association Annual Meeting.

Chair: Linda Reichwein Zientek Discussant: Linda Darling-Hammond

- Teacher Licensure Tests and Student Achievement: Is Teacher Testing an Effective Policy? Dan Goldhaber
- How Do New Teachers Differ on Self-efficacy and Level of Preparedness by Certification Route? Linda Reichwein Zientek, Robert M. Capraro, Mary Margaret Capraro
- Effective Alternative Certification Programs and Teaching Quality: The Case of North Carolina. Barnett Berry, Dylan Johnson, Dana Montgomery
- Characteristics of Effective Alternative Certification Programs. Daniel C. Humphrey, Marjorie E. Wechsler, and Heather Hough, SRI
- The Current Debate about Teacher Certification Routes. Robert Floden

Treisman, P. U. (2007, February). *Fireside chat with Uri (Graduate session)*. Southwest Educational Research Association, San Antonio, TX.

Thompson, B., Daniel, L. G., Henson, R. K., & Onwuegbuzie, A. (2006, February). In L. R. Zientek (Chair), *How to publish: Advice from editors*. Session presented at the annual meeting of the Southwest Educational Research Association, Austin, TX.

### **Regional**

31. Zientek, L. R., & Nimon, K. (2017, February). *Conducting secondary analyses from published research: interpreting published data in new ways*. Workshop presented at the Southwest Educational Research Association, San Antonio, TX.
30. Nimon, K., Berrios, J., Cooper, J., Mull, M., Musgrave, J., Keiffer, G. L., & Zientek, L. R. (2017, February). *Canonical correlation as the multivariate general linear model: A comprehensive illustration*. Workshop presented at the Southwest Educational Research Association, San Antonio, TX.
29. Albert, J., & Zientek, L. R. (2017, February) *Attendance practices of developmental mathematics students: A case study*. Paper presented at the Southwest Educational Research Association, San Antonio, TX.
28. Younes, R. & Zientek, L. R. (2016, February). *Influence of socio-economic status and school locale on mathematics scores and dispositions: Results from TIMSS 2011*. Paper presented at the annual conference of the Southwest Educational Research Association, New Orleans, LA.
27. Albert, J., Zientek, L. R., Manage, A. & Li, X. (2016, February). *Student success rates of developmental mathematics students by student profiles*. Paper presented at the annual conference of the Southwest Educational Research Association, New Orleans, LA.
26. Moreno, N. P., Newell, A. D., Zientek, L. R., & Nimon, K. (2015, February). *STEMming the HIV/AIDS tide: Linking science education to critical world issues*. Paper to be presented at the annual conference of the Southwest Educational Research Association, San Antonio, TX.



25. Haecker, B. M., & Zientek, L. R. (2015, February). *Evidence-based decision making: influences on central-office administrators' decision-making practices*. Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.
24. Taylor, J. M., & Zientek, L. R. (2015, February). *The effect of computer algebra system on the mathematics achievement of middle school students*. Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.
23. Younnes, R., Fong, C., & Zientek, L. R. (2015, February). *Gender and ethnic differences in U.S. students' mathematics achievement and beliefs: Results from TIMSS 2011*. Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.
22. Newell, A. D., Moreno, N., & Zientek, L. R. (2014, February). *Student attitudes towards science as a predictor for student content knowledge gains*. Paper presented at the annual meeting of the Southwest Educational Research Association, New Orleans, LA.
21. Yetkiner-Ozel, E., Zientek, L. R., & Ozel, S. (2013, February). *Flexible teaching of statistical significance testing & confidence intervals*. Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.
20. Skidmore, S. T., Zientek, L. R., Combs, J., Hirai, M., Price, D., Moore, G. (2013, February). *A review of the statistical practices of developmental education researchers in published studies*. Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.
19. Zientek, L. R., Nimon, K., & Kraha, A. (2013, February). *All possible subsets for predictive discriminant analysis and logistic regression: Automating the process*. Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.
18. Zientek, L. R., Natesan, P., & Nimon, K. (2013, February). *Conducting and publishing research: An overview of the research process*. Workshop presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.
17. Nimon, K., Skidmore, S., Zientek, L. R., & Thompson, B. (2013, February). *Bias and precision in several  $R^2$  correction equations across various research designs and situations*. Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.
16. Ozel, S., Yetkiner Ozel, Z. E., & Zientek, L. R. (2012, February). *Van Hiele levels of geometric understanding in preservice teachers*. Paper presented at the annual meeting of the Southwest Educational Research Association, New Orleans, LA.
15. Matteson, S. M., Zientek, L. R., Ozel, S., & Yetkiner Ozel, Z. E. (2012, February). *Next steps in improving professional development for mathematics teachers*. Paper presented at the annual meeting of the Southwest Educational Research Association, New Orleans, LA.

14. Taylor, J. M., Zientek, L. R., & Matteson, S. M. (2012, February). *Improving achievement in trigonometry: The role of fractions operations*. Paper presented at the annual meeting of the Southwest Educational Research Association, New Orleans, LA.
13. Nimon, K., Zientek, L. R., & Thompson, B. (2012, February). *Beta weights and structure coefficients: Why do they bounce?* Paper presented at the annual meeting of the Southwest Educational Research Association, New Orleans, LA.
12. Zientek, L. R., Natesan, P., & Nimon, K. (2012, February). *Conducting and publishing research: An overview of the research process*. Workshop presented at the annual meeting of the Southwest Educational Research Association, New Orleans, LA.
11. Kraha, A., Turner, H., Nimon, K., Zientek, L. R., & Henson, R. (2011, February). *Evaluating predictor importance: Tools to support interpreting multiple regression*. Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.
10. Zientek, L. R., & Thompson, B. (2009, February). *Heuristic examples show how correlation matrices can benefit research*. Paper presented at the annual meeting of the Southwest Educational Research Association, San Antonio, TX.
9. Zientek, L. R., Capraro, M. M., Capraro, R. M., & Yetkiner, Z. E. (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.
8. Schneider, C., Capraro, R. M., & Zientek, L. R. (2007, July). *High school to higher ed: What do the mathematics data show?* Presentation at the American Mathematical Association of Two-Year Colleges Southwest Regional Conference, San Antonio, TX.
7. 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.
6. 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.
5. 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.
4. 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.
3. Zientek, L. R. (2004, February). *Commonality analysis: Partitioning variance*. Paper presented at the annual meeting of the Southwest Educational Research Association, Dallas, TX.

2. 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.
1. 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**

10. Fong, C. J., & Zientek, L. R. (2015, April). *The role of instructional practices in community college student developmental mathematics grades*. Poster to be presented at the Council for the Study of Community Colleges Annual Meeting, Fort Worth, TX.
9. Zientek, L. R. (2014, February). *A collection of internet activities for prospective elementary teachers*. Presented at the Great Ideas for Teaching Students (GIFTS) Seminars at the annual meeting of the Texas Community College Teachers Association, San Antonio, TX.
8. Taylor, S., Mittag, K. C., & Zientek, L. R. (2011, February). *Using data for z-scores and confidence intervals*. Presentation at the Conference on the Teaching of Mathematics 6 – 12, SHSU, Huntsville, TX.
7. Zientek, L. R., Yetkiner, Z. E., & Griffin, M. (2009, October). *An investigation of factors that influence students' academic success in developmental mathematics courses*. Presentation at the Charles A. Dana Center Higher Education Conference, Austin, TX.
6. Zientek, L. R. (2008, October). *Preparing mathematics and science teachers: Implications for research and teacher training*. Presentation at the Charles A. Dana Center Higher Education Conference, Austin, TX.
5. Seeley, C., Wohlgehausen, J., & Zientek, L. R. (2008, February). *College-readiness standards and the development of a new fourth year of mathematics course*. Presentation at the annual meeting of the Texas Community College Teachers Organization, Dallas, TX.
4. Beauford, J., Vasquez-Mireles, S., Zientek, L. R., Westbrook, V., Wohlgehausen, J., & White, G. (2007, October). Presentation at the *P-16 vertical and horizontal alignment in mathematics and science: What does this mean for faculty?* Dana Center October Pre-service Conference, Austin TX.
3. Allen, D., Griffin, M., Wohlgehausen, J., & Zientek, L. R. (2007, July). *Moving from high school mathematics to college mathematics: What's going on?* Presentation at the Conference for the Advancement of Mathematics Teachers, San Antonio, TX.
2. Weilmuenster, J., Wohlgehausen, J., & Zientek, L. R. (2007, June). *P-16 connections: Creating a cohesive transition into higher education*. Presentation at the Administrator's Conference, San Antonio, TX.
1. Allen, D., Zientek, L. R., Wilhite, P. A., & Griffin, M. (2006, October). *College algebra as a transition course – What the colleges want to see?* Presentation at the Dana

Center October Pre-service Conference, Austin TX.

**Local**

3. 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.
2. 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.
1. 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**

9. Zientek, L. R., (2017, March). Conducting undergraduate research in mathematics education: The benefits of adhering to the standards. Building Scholars Program - TAMUI, Laredo, TX.
8. AMATYC 2013 Developmental Mathematics Institute: Invited Panel Member for Opening Session. Anaheim, CA.
7. Blair, R., & Zientek, L. R. (2013, July). *Foundations of mathematical reasoning*. Presented at the NMP Institute, Austin, TX.
6. Zientek, L. R. (2013, March). *Student success: Looking beyond skill sets*. Presented at the SHSU Mathematics Club meeting.
5. Zientek, L. R. (2012, October). *Factors that influence success in developmental mathematics courses*. Presented at a Colloquium for the SHSU Mathematics and Statistics department.
4. Zientek, L. R. (2012, January). *Research Findings in Developmental Education from Three Community Colleges*. Presented to mathematics faculty at Northeast Texas Community College.
3. Zientek, L. R. (2011, March). *An overview of the research process*. Presented to a graduate class via Skype at Bogazici University
2. Thompson, B., Onwuegbuzie, A., & Zientek, L. R. (2010, October). *Data Collection, Analysis, and Dissemination*. Workshop presented for the Texas STEPs – Workshop II. Houston, TX.
1. Zientek, L. R., Crider, P., Wetzels, 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.

**REVIEWER (Served as a Reviewer for the Following):**

*Educational Researcher*

*American Educational Research Journal: Teaching, Learning, and Human Development*

*Southwest Educational Research Association (SERA) Annual Conference*

*American Educational Research Association Annual Conference. Division K-*

*Teaching and Teacher Education, Sections 1 and 10.*

*Journal of Early Intervention*

*School, Science, and Mathematics Journal*

*Behavior Research Methods*

*The Journal of Experimental Education*

2007 & 2008 Outstanding SERA Paper

*Evaluation & the Health Professions*

*Research in The Schools*

*Mathematics Teacher*

*Journal for Research in Mathematics Education*

*Methods in Ecology and Evolution*

*European Journal of Training and Development*

## **EDITORIAL BOARDS**

*Research in The Schools* (2010 - )

## **GRANT PROPOSALS SUBMITTED**

Induction Programs and Principal Quality: How to Create the Best Support for Beginner 6-12 Grade Math/Science Teachers. A preliminary proposal was approved and an invitation was given to submit a full proposal for review, which was submitted November 2008. PI: Bruce Thompson; Co-PIs: Linda Zientek, Mary Margaret Capraro, and Robert M. Capraro **(Not Funded)**.

Evaluating the Impact of Virtual Manipulatives on Teacher Quality and Student Learning (NSF). Submitted to National Science Foundation. PI: Linda Zientek **(Not Funded, Approximately \$450,000)**

2011 Co-investigator, \$1,100,232.00. Development and Dissemination of an Algebra Teacher Self-Efficacy Instrument, U.S. Department of Education, Institute of Education Sciences **(Not Funded)**

Technology Assisted Research Geared to Enhancing Teaching (TARGET) and Student Learning. Submitted to National Science Foundation. **(Not Funded)**.

2015- SHSU Assessment Mini-Grant; Julie Albert & Linda Zientek. (\$1,000) **(Funded)**

2015 – SHSU Enhancement Research Grant Proposal. *A Strengths-Based Learning Approach to Developmental Mathematics*. Forrest Lane – PI; Linda Zientek – Co-investigator. **(Not Funded)**.

## **GRANT ACTIVITIES**

2012 –Community College Liaison - Online Developmental Education Courses – SHSU Education Leadership Grant from Texas Higher Education Coordinating Board

## **CONSULTING**

2013 – Present Baylor College of Medicine Center for Educational Outreach

2014 – MDRC Developmental Education Acceleration Project

- 2012 – New Mathways Project Cross Course Design Team - Member
- 2012 – Consultant – Program Review Mathematics Department – Blinn College Brenham
- 2012 Statway Outcomes – Charles A. Dana Center – (January)
- 2010 – 2011 Co-evaluator for the UT-Arlington Mathematics Teacher Preparation Academy (James Epperson & Teresa Jorgeson)
- 2009 – 2011 Evaluator for a San Antonio Mathematics Collaborative Teacher Quality Grant (UTSA: Kathleen Mittag and Betty Travis)

### **CURRICULUM DEVELOPMENT**

Developed the mathematics modules for the Blinn Alternative Certification Program (TEACH) and co-taught the TEACH mathematics section.

### **TEACHING EXPERIENCE**

#### **Sam Houston State University**

##### **Assistant/Associate Professor Fall 2007 – Present**

- MATH 1385 – Introduction to the Foundations of Mathematics II
- MATH 2384 – Functions & Graphs
- MATH 3381– Introduction to the Foundations of Mathematics III
- MATH 3386– Fundamentals of Probability and Statistics
- MATH 4385 – Mathematical Problem Solving
- MATH 5386 – Seminar in Algebra for Teachers
- MATH 5389 – Seminar in Probability and Statistics for Teachers
- MATH 5360 – Overview of Research in Learning Algebra

#### **Graduate Students**

##### **MA**

- Julie Albert (MA – Served as director of major project)
- Laura Burris (MA – Served as director of major project)
- Birgit Steinich (MA – Served as director of major project)
- Jim Dang (MA – Served as director of major project)

##### **EdD/PhD**

- Stephanie Doyen (EdD – Committee Member – Graduated December 2011)
- Bonnie Haecker (PhD – Committee Member – EPSY Texas A&M University – Graduated December 2013)
- Michele Poast (Current Advisor)

#### **Instructor Blinn College August 1997-2007**

- August 1997 – 1999 Part-time/adjunct instructor
- August 1999 – 2007 Full-time instructor
- Math 0100 TASP Preparation
- Math 0310 Algebra
- Math 0312 Intermediate Algebra
- Math 1314 College Algebra
- Math 1316 Trigonometry
- Math 1350/1351 Fundamentals of Math I & II

Math 1325 Analysis II – Calculus for the Managerial, Life, and Social Sciences  
Mathematics Modules in the Blinn Alternative Certification Program (TEACH)

**Teaching Assistant** - Mathematics

Sam Houston State University,

January 1996 – May 1997

Oct 1994 – May 1995 SHSU Graduate Student Research Assistant

**SERVICE (National or Regional)**

2017	Served as a reviewer of the MAA IP Guide Classroom Practices chapter
2017	AMATYC DMC Proposal Review Subcommittee
2015-2017 (Fiscal)	Institute of Education Sciences' Mathematics and Science Education Research Scientific Review Panel – Principal Member
2015-2016 May	Member of the BCR Steering Committee (AMATYC)
2015	Participant of the Common Vision Workshop (Washington, DC)
2014	AMATYC Crossroads Revision Task Force – Member
<b>2014 – Present</b>	<b>SERA Executive Director</b>
2012 – 2016 (Jan 1)	AMATYC Developmental Mathematics Committee – Chair
2014 February	Member of the IES Mathematics & Science 2 Review Panel
2013	AMATYC Standards Advisory Group (Member)
2012	2012 SERA Conference Immediate-Past President
2012 (January)	Student Success Meeting– Charles A. Dana Center (January 2012)
2011 – 2014	SERA Deputy Executive Director
2011	2011 SERA Conference President
2010 – 2013	School Science and Mathematics Association Publications Committee
2010 – Present	SERA – Proposal System: Bruce Thompson and I developed a new online proposal system. Once the system was set up, I was in charge of collecting the proposals and organizing the proposal file.
2010	2010 SERA Conference Program Chair and President-Elect
2010	AMATYC New Developmental Mathway – Invited and attended a meeting at the Carnegie Foundation, Palo Alto California and worked further on the development of the goals for the Mathway Project
2009 – 2010	Invited Member of the AMATYC Mathway Group (Invited)—This is a 15 member subgroup of the AMATYC New Developmental Life Project who were invited to participate in a project for investigating new pathways into developmental mathematics. Participated in a workshop in Seattle that was sponsored by the Monterrey Institute of Technology and The Gates Foundation.
2009 – Present	AMATYC New Developmental Life Project (Partner-Invited)—Group is working on examining how better to improve developmental education.
2009	School Science and Mathematics Association – Finance Committee
2007 – 2008	TASM 4th Year of Mathematics Committee – Committee designed a 4th year of mathematics course. The committee was created under the direction of TASM and was chaired by Cathy Seeley.

2007 – 2008 April SERA Newsletter Editor  
 2007 – 2008 April Texas Higher Education Coordinating Board College Readiness Vertical Team Member  
 2007 May Selected to be placed on the ballot for Southwest Regional Vice-President of AMATYC  
 2006-2011 Texas Partners in P-16 Mathematics (Chair) – Representatives from K-12, School Organizations, Colleges, and Universities meet to increase communication between all levels of educators.  
 2006 Reviewer for *AMATYC Beyond Crossroads Review of Quantitative Literacy Digital Resource*  
 2006–2008 Feb TCCTA Legislative Committee (Member)  
 2005–2007 2007 American Mathematical Association of Two-Year Colleges (AMATYC) Southwest Regional Conference Committee Chair  
 2005–2007 TexMATYC Campus Representative  
 2005 AMATYC Delegate  
 2004-2006 President Texas Mathematical Association of Two-Year Colleges (TexMATYC).  
 2002-2004 Algebra Teachers Empowered for Achievement in Mathematics and Science (TEXTTEAM) Leader  
 2002-2004 Geometry TEXTTEAM Leader  
 2002-2004 Texas Community College Teacher's Association (TCCTA) Mathematics Section Secretary, Vice Chair, and Chair

**SHSU (Service)**  
**Department**

Co-chair Mathematics Education Search Committee (2016-2017)  
 In charge of proposal system for Conference On the Teaching of Mathematics 6-12 (2016)  
 Mathematics Honor's Committee Chair 2015  
 In charge of proposal system for Conference On the Teaching of Mathematics 6-12 (2015)  
 Mathematics Honor's Committee Chair 2014  
 Program Chair for the Conference On the Teaching of Mathematics 6-12 (2014)  
 Mathematics Honor's Committee Chair 2013  
 Program Chair for the Conference On the Teaching of Mathematics 6-12 (2013)  
 Merit Committee (Member – Spring 2012)  
 Mathematics Honor Committee (Member – Spring 2012)  
 Search Committee Department of Mathematics and Statistics – Mathematics Education Position (Member – 2011)  
 Merit Committee (Member – Spring 2011)  
 MTH 386 Textbook Committee (Chair – 2011)  
 MTH 184/185 Textbook Committee (Member – 2011)  
 Developmental Mathematics Committee (Member 2010 – Present)  
 Developmental Mathematics Textbook Committee (Member - 2010)  
 Co-sponsored the Ruth Lane Mathematics Society (2009-2010)

**University (Service)**



**Protection of Human Rights Committee (Member August 31, 2015 – August 31, 2018)**

Stagg's Dissertation Committee Member (2016)

Stagg's Dissertation Committee Member (2015)

Stagg's Dissertation Committee Member (2014)

Faculty Women's Advisory Committee (Member December 2013 – August 31, 2014)

Search Committee Department of Educational Leadership – Development Education Administration Program: Position II (Member – 2014)

**Protection of Human Rights Committee (Member August 31, 2012 – August 31, 2015)**

Stagg's Dissertation Committee (2013)

Core Curriculum Assessment Committee (Member Nov. 2011 – Aug. 31, 2013)

Stagg's Dissertation Committee (2012)

Search Committee Department of Educational Leadership – Development Education Administration Program: Position II (Member – 2011)

Search Committee Department of Educational Leadership – Development Education Administration Program: Position I (Member – 2011)

Served on the SHSU P16 Committee

**Blinn College**

Served on hiring committees, as an academic advisor, cosponsor of the Future Teachers Organization, Faculty Council Secretary, Vice-President, and President, Service Learning Teacher, Task Force Development committees, Partner Teaching Initiative, Team member on the Phi Theta Kappa Grant – Preparing Tomorrow's Science and Math Teachers: The Community College Response, Selection Committee for Alternative Certification Program, Teaching Excellence Award Committee Member, and Quality Enhancement Plan Committee. Also, maintained mathematics homepage, served on textbook committees and as a mentor teacher.

**Community**

2001- 2007

Organized the Blinn Mu Alpha Theta Induction Ceremony – Worked with area high school mathematics department chairs to recognize outstanding juniors and seniors and Blinn students in mathematics. Approximately 250 students, parents and teachers attended each year.

**Professional Organizations (Member)**

American Educational Research Association

National Council Teachers of Mathematics

Texas Community College Teachers Association Texas Mathematical Association of Two-Year Colleges

Association of Mathematics Teacher Educators

Association for Supervision and Curriculum Development

**PROFESSIONAL DEVELOPMENT AND PREPARATION**

2012 Hierarchical Linear Modeling, Texas A&M University.

2008 National Science Foundation Day at the University of Texas at El Paso

2007	Hierarchical Linear Modeling, Texas A&M University. This was a 5-day workshop presented by Oiman Kwok.
2006	Mixed Methods Research Designs and Analysis. Southwest Educational Research Association, presented by Anthony Onwuegbuzie and John Slate
2005	Factor Analytic Designs in Educational Research. Southwest Educational Research Association, presented by Bruce Thompson.
2004 May	Regent's Initiative Conference, Texas A&M University
2003- 2005	Information Technology and Science [ITS] Texas A&M University, Directed by Janie Schielack
2002	Texas A&M Teaching Scholars Conference
2001, 2002, 2004 2006	Charles A. Dana Center Pre-service Conference for Mathematics, Science, and Education
2001, 2006	TCCTA Faculty Leaders Conference
2001 Summer	Mathematics Educator Technology Short Course
2000 November	Alternative Teacher Certification Program in Community Colleges
2000 Fall	Putting Your Course Online, Virtual College of Texas
2000 Fall	Video Conference Training
2000 August	Texas Alliance Legislative Conference on Science, Technology and Mathematics Education
1998 Summer	Short course for College Algebra & Trigonometry Instructors TI-83
1999 Summer	ICTCM Conference SHSU

## ACCOMPLISHMENTS

Frels, R., **Zientek, L. R.**, & Onwuegbuzie, A. J. Differences of mentoring experiences across grade span among principals, mentors, and mentees article named to the Routledge's Class of 2015 most read articles from Routledge journals researching Teacher and Teacher Education

### **2013 SERA Extended Service Award**

**2012 Winner of the 2012 Distinguished Paper Award for the Mentorship and Mentoring Practices AERA SIG:** Frels, R., **Zientek, L. R.**, & Onwuegbuzie, A. J. Differences of mentoring experiences across grade span among principals, mentors, and mentees. *Mentoring and Tutoring Journal*.

**2012 Nominated for the Greater Texas Foundation Faculty Fellows Program by Uri Treisman**

**2007 Teaching, Learning, and Culture Dissertation of the Year Award from Texas A&M**

*Community Colleges and Alternative Certification* Outstanding Paper in Mathematics Education, ERE, 2003

Named Outstanding Mathematics Senior 1995 (Sam Houston State University)

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