

Academic Identification

Name

Andrew M. Tyminski

Position

Professor of Teacher Education and Mathematics August 2022 – present
Elementary Mathematics Education
Department of Teaching & Learning
Clemson University

Academic Background

Associate Professor of Teacher Education and Mathematics August 2014 – July
Elementary Mathematics Education 2022
Department of Teaching & Learning and School of Statistics and
Mathematical Sciences
Clemson University

Assistant Professor of Teacher Education and Mathematics July 2010 – July 2014
Elementary Mathematics Education
Departments of Teacher Education and Mathematical Sciences
Clemson University

Assistant Professor of Curriculum and Instruction August 2006–May
Mathematics Education 2010
Department of Curriculum and Instruction
Purdue University

Graduate Assistant 2002 – 2006
Department of Mathematics and Science Education
University of Georgia

Middle School Mathematics Teacher 1993 – 2002
Lynnhaven Middle School, Virginia Beach, VA; Kemps Landing Magnet School, Virginia
Beach, VA; The American School of The Hague, Wassenaar, Netherlands

Commonwealth of Virginia Teaching License 2020 - 2030
Certifications: Early/Primary Education PRE K – 3; Elementary Grades 3 – 6; Middle
Education Grades 6 – 8; Mathematics.

Academic Degrees

Doctorate of Philosophy in Mathematics Education August 2006
University of Georgia, Athens, Georgia
Dissertation: *Teacher lust: Its antecedents and enactments in a collegiate mathematics course*
Committee: Dr. Denise Spangler (Chair), Dr. Paola Sztajn, Dr. Deborah Ball (University of
Michigan), Dr. Edward Azoff (mathematics department)

Master of Education in Mathematics Education August 2003
University of Georgia, Athens, Georgia

Bachelor of Science in Elementary Education December 1992
State University of New York College at Buffalo, Buffalo, New York

Research

Publications

Peer reviewed articles

* Denotes graduate student co-author

** Denotes undergraduate student co-author

Castro Superfine, A. M., Bragelman, J., **Tyminski, A. M.**, & Amador, J. M. (under review). Exploring the use of simulations to support prospective teacher noticing. Manuscript submitted to Special Issue of *ZDM – Mathematics Education*.

Land, T. J., **Tyminski, A. M.**, & Brittain, M. H.* (under review). K-5 teachers' problem posing: Examining the accessibility of number choice structures in contextualized word problems. Manuscript submitted to *School Science and Mathematics*.

Dean, S., & Tyminski, A. M. (under review). Shaping small worlds: An integrated place-based learning project in middle school. Manuscript submitted to *Voices from the Middle*.

Tyminski, A. M., Superfine, A. C., & Brittain, M. H.* (in press). Prospective teachers' knowledge of children's multiplicative thinking: Learning trajectory based instruction in a mathematics course. Manuscript accepted at *Mathematics Teacher Educator*.

Zambak, V. S, & **Tyminski, A. M.** (2023). Prospective middle-grades mathematics teachers' technology-enhanced specialized content knowledge and beliefs. *RMLE Online*, 46:1, 1-20, DOI: 10.1080/19404476.2022.2151681

Tyminski, A. M., & Brittain, M. H.* (2022). Scholarly practice and inquiry: Dynamic interactions in an elementary mathematics methods course. *The Mathematics Educator*, 30(2), 64 – 93.

Tyminski, A. M., Simpson, A. M.*, Dede, E.*, Drake, C., & Land, T. J. (2020). Prospective elementary mathematics teachers' noticing of children's mathematics: A focus on extending moves. *Journal of Mathematics Teacher Education*. DOI 10.1007/s10857-020-09472-2

Zambak, V. S.*, & **Tyminski, A. M.** (2019). Examining mathematical technological content knowledge of pre-service middle grades teachers with Geometer's Sketchpad in a geometry course. *International Journal of Mathematical Education in Science and Technology*, 51(2), 183 – 207.

Land, T. J., **Tyminski, A. M.**, & Drake, C. (2019). Examining aspects of teachers' posing of problems in response to children's mathematical thinking. *Journal of Mathematics Teacher Education*, 22(4), 331-353.

- Zambak, V. S.*, & **Tyminski, A. M.** (2017). A case study on specialized content knowledge development with dynamic geometry software: The analysis of influential factors and beliefs of three prospective middle grades mathematics teachers about technology. *Mathematics Teacher Education and Development*, 19(1), 82 – 106.
- Kastberg, S. K., **Tyminski, A. M.**, & Sanchez, W. (2017). Reframing research on methods courses in mathematics teacher education. *The Mathematics Educator*, 26(1), 3 – 31.
- Zambak, V. S.*, Alston, D. M*, Marshall, J, & **Tyminski, A. M.** (2017) Convincing science teachers for a practical change towards inquiry based instruction: Revisiting Guskey's staff development model. *Science Educator*, 25(2), 108 - 116.
- Bachour, R. M.**, Braun, S.**, & **Tyminski, A. M.** (2016). *Problem solvers solutions: Which lake is bigger?. Teaching Children Mathematics*, 23(4), 212 - 214.
- Lischka, A. E., Sanchez, W. B., Kastberg, S. K., & **Tyminski, A. M.** (2016). Seeking Bridges between Theory and Practice: A Report from the Scholarly Inquiry and Practices Conference on Mathematics Methods Education. *NCSM Journal of Mathematics Education Leadership*, 17(1), 38 - 48.
- Land, T. J., **Tyminski, A. M.**, & Drake, C. (2015). Examining pre-service teachers' reading of *Standards*-based curriculum materials. *Teaching and Teacher Education*, 51, 16 - 26.
- Drake, C., Land, T., & **Tyminski, A. M.** (2014). Using educative curriculum materials to support the development of pre-service teachers' knowledge. *Educational Researcher*, 43(3), 154-162.
- Tyminski, A. M.**, Zambak, V. S.*, Drake, C., & Land, T. J. (2014). Using representations, decomposition, and approximations of practices to support prospective elementary mathematics teachers' practice of organizing discussions. *Journal of Mathematics Teacher Education*, 17(5), 463-487.
- Tyminski, A. M.**, Haltwanger, L.*, Zambak, V. S.*, Horton, R., & Hedentniemi, T. (2013). Developing inquiry practices in middle grades mathematics teachers: Examining the introduction of technology. *Contemporary Issues in Technology and Teacher Education*, 13(4). Retrieved from <http://www.citejournal.org/vol13/iss4/mathematics/article1.cfm>
- Tyminski, A. M.**, Drake, C., & Land, T. (2013). Developing students' addition strategies: Pre-service teachers' learning about and from *Standards*-based curriculum materials. *Mathematics Teacher Educator*, 2(1), 6 – 26.
- Dunston, P. J., & **Tyminski, A. M.** (2013). What's the big deal about vocabulary? *Mathematics Teaching in the Middle School*, 19(1), 38 - 45.
- Tyminski, A. M.** (2013). Everybody SCATteR. *Teaching Children Mathematics*, 20(2), 128.
- Tyminski, A. M.**, & Dogbey, J. K. (2012). Developing the common denominator fraction division algorithm. *Mathematics Teaching in the Middle School*, 18(4), 248 - 251.

- Tyminski, A. M.** (2010). Teacher lust: Reconstructing the construct for mathematics instruction. *Journal of Mathematics Teacher Education*, 13(4), 295 – 311.
- Tyminski, A. M.**, Richardson, S. E.*, & Winarski, E*. (2010). Enhancing think-pair-share: Mathematical communication in early childhood classrooms. *Teaching Children Mathematics*, 16(8), 451 – 455.
- Tyminski, A. M.**, Ledford, S., & Hembree, D. (2010). "What was really accomplished today?" Mathematics content specialists observe a class for prospective K–8 teachers. *The Montana Mathematics Enthusiast*, 7(1), 75 – 91.
- Tyminski, A. M.**, Weilbacher, M.**, Lenburg, N.**, & Brown, C. (2008). Ladybugs and lengths: A beginning lesson on measurement. *Teaching Children Mathematics*, 15(1), 34 – 37.
- Mewborn, D. S., & **Tyminski, A. M.** (2006). Lortie's apprenticeship of observation revisited. *For the Learning of Mathematics*, 26(3), 39 - 42.

Edited Books and Journals

- Hodges, T. E., Roy, G. J., & **Tyminski, A. M.** (Eds.) (2018). Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Greenville, SC: University of South Carolina & Clemson University.
- Kastberg, S., **Tyminski, A.**, Lischka, A., & Sanchez, W. (Eds.) (2018). Building Support for Scholarly Practices in Mathematics Methods. Charlotte, NC: Information Age Publishing.
- Bray, W., England, L., & **Tyminski, A.** (Eds.). (2015). 2015 Focus Issue: Between the Wholes: Promoting Fraction and Decimal Understanding. *Teaching Children Mathematics*, 22(3).

Book Chapters

- Amador, J. M.**, Bragelman, J., Castro Superfine, A. M., **Tyminski, A. M.** (under review). Implementing simulations in mathematics content courses: Analysis of prospective teachers' approaches to questioning student strategies based on attending and interpreting. In Cai, J. (Ed.) *Innovations in initial teacher education*. New York, NY: Springer.
- Kastberg, S., **Tyminski, A. M.**, Lischka, A. E., & Sanchez, W. (2018). Setting the stage: Explorations of mathematics teacher educator practices. In Kastberg, S., **Tyminski, A. M.**, Lischka, A. E., & Sanchez, W. (Eds.) *Building support for scholarly practices in mathematics methods* (pp. 3-10). Charlotte, NC: Information Age Publishing.
- Tyminski, A. M.**, Land, T. J., Drake, C., Zambak, V. S.*, & Simpson, A.* (2014). Pre-service elementary mathematics teachers' emerging ability to write problems to build on children's mathematics. In J. Lo, K. R. Leatham, & L. R. Van Zoest (Eds.), *Research trends in mathematics teacher education* (pp. 193 – 218). New York, NY: Springer.
- Tyminski, A. M.**, & Linder, S. M. (2012). Encouraging preschoolers' emerging

mathematics skills. In A. Shillady (Ed.), *Spotlight on young children: Exploring math* (pp. 28-33). Washington, DC: NAEYC

Tyminski, A. M. (2008). Preparing the next generation of mathematics educators: An assistant professor's experience. In R. E. Reys & J. A. Dossey (Eds.), *U.S. doctorates in mathematics education: Developing stewards of the discipline* (pp. 223 – 228). Washington, DC: American Mathematical Society.

Reports

Kastberg, S., Lischka, A. E., **Tyminski, A. M.**, & Sanchez, W. (2015). *White paper: Building support for scholarly practice in mathematics methods*.

Presentations

International & National Conferences

Refereed Conference Proceedings

Tyminski, A. M., Wieman, R., Gonzalez, G., Trocki, A., Johnson, K., Perry, J., & Eli, J. (2019). *Developing theory, research, and tools for effective launching: Developing a launch framework*. In Otten, S., Candela, A. G., de Araujo, Z., Haines, C., & Munter, C. (Eds.) Proceedings of the 41st annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 1924 - 1932). St. Louis, MO.

Wieman, R., Perry, J., **Tyminski, A. M.**, Kelemanik, G., Gonzalez, G., Trocki, A., & Eli, J. (2018). *Developing theory, research, and tools for effective launching*. In Hodges, T. E., Roy, G. J., & Tyminski, A. M. (Eds.) Proceedings of the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 1497 – 1506). Greenville, SC: University of South Carolina & Clemson University.

Land, T. L., Brittain, M. H.*, & **Tyminski, A. M.** (2018). *Profile of teachers' number choice use in problem posing*. Paper presented at the 2018 Annual Meeting of the American Educational Research Association. New York, NY.

Tyminski, A. M. & Brittain, M. H.* (2017). *Scholarly practice and inquiry: Dynamic interactions in an elementary mathematics methods course*. In Newton, J. A. & Galindo, E. (Eds.) Proceedings of the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. (pp. 837-844). Indianapolis, IN: HAMTE.

Sanchez, W., Kastberg, S., **Tyminski, A. M.**, & Lischka, A. E. (2016). *A Report from the 2015 SIP Conference on Methods*. Presentation at the 2016 Presentation at the 2016 the National Council of Teachers of Mathematics Research Conference, San Francisco, CA.

Zambak, V. Z.*, & **Tyminski, A. M.** (2016). *Construction of an analytical framework to explore prospective teachers' technological content knowledge for geometry*. Paper presented at the 2016 Annual Meeting of the American Educational Research Association. Vancouver, Washington, D.C.

Tyminski, A. M., Simpson, A. M.*, Dede, E.*, Drake, C., & Land, T. J. (2015). *Prospective elementary teachers' professional noticing of children's fraction strategies*. In Bartell, T. G., Bieda, K. N., Putnam, R. T., Bradfield, K., & Dominguez, H. (Eds.) Proceedings of

- the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. (pp. 964-967). East Lansing, MI: Michigan State University.
- Zambak, V. S.*, & **Tyminski, A. M.** (2015). *Specialized content knowledge development with GSP: A case study*. In Bartell, T. G., Bieda, K. N., Putnam, R. T., Bradfield, K., & Dominguez, H. (Eds.) Proceedings of the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. (p. 1258). East Lansing, MI: Michigan State University.
- Simpson, A. M.*, **Tyminski, A. M.**, & Dede, E.* (2015). *Elementary preservice teachers' interpretation of children's fractional understanding*. Proceedings of the 39th annual meeting of the International Group for the Psychology of Mathematics Education. Hobart, Australia.
- Land, T. J., Drake, C., & **Tyminski, A. M.** (2015). *Characteristics of teachers' problem-posing responses to children's mathematical thinking*. Paper presentation at the 2015 National Council of Teachers of Mathematics Research Conference, Boston, MA.
- Land, T. J., Drake, C., & **Tyminski, A. M.** (2014). *Teachers' problem solving responses to children's mathematical thinking*. Paper presentation at the 2014 National Council of Teachers of Mathematics Research Conference, New Orleans, LA.
- Tyminski, A. M.**, Land, T. J., & Drake, C. (2013). *Elementary preservice teachers reading of educative curriculum: Noticing students' mathematical thinking*. In M. Martinez & A. Castro Superfine (Eds.), Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 685-692). Chicago, IL: University of Illinois at Chicago.
- Land, T. J., **Tyminski, A. M.**, & Drake, C. (2013). *Examining pre-service teachers' emerging abilities to read Standards-based curriculum materials*. In M. Martinez & A. Castro Superfine (Eds.), Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 773-776). Chicago, IL: University of Illinois at Chicago.
- Kastberg, S., Sanchez, W., **Tyminski, A. M.**, Lischka, A., & Lim, W. (2013). *Exploring mathematics methods courses and impacts for prospective teachers*. In M. Martinez & A. Castro Superfine (Eds.), Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 1349-1357). Chicago, IL: University of Illinois at Chicago.
- Zambak, V. S.*, Alston, D. M.*, **Tyminski, A. M.**, & Marshall, J. C. (2013). *Inquiry in Motion: An Investigation of a Professional Development Program to Change Teachers' Beliefs about Inquiry-Based Instruction*. In M. Martinez & A. Castro Superfine (Eds.), Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 1093-1096) Chicago, IL: University of Illinois at Chicago.
- Tyminski, A. M.**, Land, T. J., Drake, C., & Zambak, V. S.* (2012). *Writing problems to build on children's thinking: Tasks that support pre-service teacher transitions*. In L. R. Van Zoest, J.-J. Lo & J. L. Kratky (Eds.), Proceedings of the 34th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 674-681). Kalamazoo, MI: University of Western

Michigan.

Kastberg, S., Sanchez, W., Edenfield, K, **Tyminski, A. M.**, & Stump, S., (2012). *What is the content of methods? Building an understanding of conceptual frameworks for mathematics methods courses*. In L. R. Van Zoest, J.-J. Lo & J. L. Kratky (Eds.), Proceedings of the 34th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 1259-1267). Kalamazoo, MI: University of Western Michigan.

Tyminski, A. M., Drake, C. & Land, T. (2012). *Using Standards-based curriculum materials to help elementary pre-service mathematics teachers learn to organize discussions*. Paper presented at the 2012 Annual Meeting of the American Educational Research Association. Vancouver, British Columbia, Canada.

Tyminski, A. M., Land, T., & Drake, C. (2011). *Elementary preservice teachers' critiques, comparisons, and preferences in examining Standards-based curricular materials*. In L. R. Wiest, & T. Lamberg (Eds.), Proceedings of the 33rd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 550-558). Reno, NV: University of Nevada, Reno.

Yadav, A., **Tyminski, A. M.**, Berkopes, K.*, & Zhou, N.* (2011) *Mathematics reform from interactive video experiences: Examining pre-service teachers' noticing and knowledge*. In L. R. Wiest, & T. Lamberg (Eds.), Proceedings of the 33rd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 1502-1509). Reno, NV: University of Nevada, Reno.

Tyminski, A. M., Drake, C., & Land, T. (2010). *Pre-service teachers' learning about and from Standards-based curriculum materials: The case of addition starter sentences*. In P. Brosnan, D. B. Erchick, & L. Flevaris (Eds.), Proceedings of the thirty-second annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 1174-1182). Columbus, OH: The Ohio State University.

Tyminski, A. M. (2007). *The marshmallow problem: Enacted teacher lust in a collegiate mathematics course*. In T. Lambert & L. R. Weist (Eds.), Proceedings of the twenty-ninth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 899-902). Stateline (Lake Tahoe), NV: University of Nevada, Reno.

Mewborn, D. S., & **Tyminski, A. M.** (2004). *Lortie revisited*. In D. E. McDougall & J. A. Ross (Eds.), Proceedings of the twenty-sixth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 1183-1189). Toronto: OISE.

Presentations

Spearman, M. & **Tyminski, A. M.** (October 2023). *Map-Based Board Games in the Elementary School*. Presentation given at the Annual Meeting of the National Council for Geographic Education (NCGE). Columbia, SC.

Tyminski, A. M., Bragelman, J., Barnes, J. G., & Amador, J. (accepted). *Exploring the Use of Simulations to Support Prospective Teacher Noticing*. To be presented at National Council of Teachers of Mathematics 2024 Research Conference 2024, Chicago, IL.

- Tyminski, A. M.**, Barnes, J. G., Amador, J., & Bragelman, J., (under review). *Using a Simulation to Examine Noticing Through Prospective Teachers' Models of Children's Mathematical Thinking*. Presentation at the Twenty-ninth Annual Conference of the Association of Mathematics Teacher Educators, Reno, NV.
- Tyminski, A. M.**, Bragelman, J., Castro-Superfine, A. M., & Amador, J. (February 2023). *Noticing in Content Courses: Instructional Activities and Educative Supports for Mathematics Teacher Educators*. Presentation at the Twenty-seventh Annual Conference of the Association of Mathematics Teacher Educators, New Orleans, LA.
- Tyminski, A. M.** & Land, T. J., (February 2021). *Profiles of Elementary Teachers' Number Choice Use in Problem Posing*. Proposal to present at the Twenty-fifth Annual Conference of the Association of Mathematics Teacher Educators, Orlando, FL.
- Tyminski, A. M.** & Castro-Superfine, A. M., (February 2020). *Developing prospective elementary teachers' KCS using a learning trajectory in an introductory content course*. Presentation at the Twenty-fourth Annual Conference of the Association of Mathematics Teacher Educators, Phoenix, AZ.
- Tyminski, A. M.**, Castro-Superfine, A. M., & Brittain, M. H.* (November 2018). *Prospective elementary teachers' noticing: Introducing a trajectory of children's multiplicative thinking in a content course*. Poster presentation for the 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Greenville, SC: University of South Carolina & Clemson University.
- Wieman, R. , Jansen, A., Land, T., **Tyminski, A.**, Jackson, K., Kelemanik, G, & Lucenta, A. (February 2018). *Launching learning, learning launching: Developing a shared framework for launching rich tasks*. Presentation at the Twenty-second Annual Conference of the Association of Mathematics Teacher Educators, Houston, TX.
- Castro-Superfine, A. M., **Tyminski, A. M.**, Marshall, A. M., Shaughnessy, M., & Goffney, I. (February 2018). *Considering the AMTE Standards for preparing teachers of mathematics: Implications for MTEs' knowledge and practice*. Presentation at the Twenty-second Annual Conference of the Association of Mathematics Teacher Educators, Houston, TX.
- Kastberg, S., Lischka, A., Sanchez, W., & **Tyminski, A.** (February 2017). *Next steps for methods: Building support for scholarly practices in mathematics methods courses*. Presentation at the Twenty-first Annual Conference of the Association of Mathematics Teacher Educators, Orlando, FL.
- Land, T. J., **Tyminski, A. M.**, Drake, C., & Amador, J. (November 2016). *Operationalizing educative guidelines for children's mathematical thinking in elementary mathematics curriculum*. Poster presented at the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Tucson, AZ: University of Arizona.
- Sanchez, W., Kastberg, S., **Tyminski, A. M.**, & Lischka, A. E. (April 2016). *Perspectives on mathematics methods courses: Outcomes from a national conference*. Presentation at the 2016 Annual Meeting of the National Council of Teachers of Mathematics, San Francisco, CA.

- Earnest, D., Males, L. M., Amador, J., Dietiker, L., Drake, C., Land, T., & **Tyminski, A. M.** (February 2015). *Towards a practice to support K-12 prospective mathematics teachers' curricular decision-making*. Presentation at the Nineteenth Annual Conference of the Association of Mathematics Teacher Educators, Orlando, FL.
- Zambak, V. Z.* & **Tyminski, A. M.** (2014). *Pre-service mathematics teachers' knowledge development and belief change within a technology-enhanced mathematics course*. Presentation at the 41st Annual Meeting of the Research Council of Mathematics Learning, San Antonio, TX.
- Kastberg, S., Sanchez, W., & **Tyminski, A. M.** (April 2013). *Building scholarly inquiry and practices for mathematics methods courses*. Presentation at the 2013 Research Pre-Session of the National Council of Teachers of Mathematics, Denver, CO.
- Sanchez, W., **Tyminski, A. M.**, & Kastberg, S. (January 2013). *Building a theoretically-grounded practice of methods instruction*. Presentation at the Seventeenth Annual Conference of the Association of Mathematics Teacher Educators, Orlando, FL.
- Kastberg, S., Edenfield, K., Sanchez, W., & **Tyminski, A. M.** (January 2012). *What is the content of methods?: Opening dialogues on course frames and enactment*. Presentation at the Sixteenth Annual Conference of the Association of Mathematics Teacher Educators, Ft. Worth, TX.
- Drake, C., Land, T., Andreotti, A., **Tyminski, A. M.**, Sweeney, M., Johnson, J., & Franke, N. (April 2011). *Learning to build on children's thinking through curriculum materials*. Presentation at the Research Pre-Session of the National Council of Teachers of Mathematics, Indianapolis, IN.
- Tyminski, A. M.**, Woodward, J.* & Walker, W. S., III.* (April 2011). *Fraction division algorithms through generalizations*. Presentation at the Annual Conference of the National Council of Teachers of Mathematics, Indianapolis, IN.
- Drake, C., Land, T., **Tyminski, A. M.**, Gichobi, M.* & Akwaji-Anderson, C.* (January 2011). *Understanding, adapting, and enacting: Developing elementary preservice teachers' Standards-based curricular knowledge and use*. Presentation at the Fifteenth Annual Conference of the Association of Mathematics Teacher Educators, Irvine, CA.
- Tyminski, A. M.**, Kastberg, S., Richardson, S. E.* & Winarski, E.* (April 2010). *Enhancing think-pair-share: Mathematical communication in early childhood classrooms*. Presentation at the Annual Conference of the National Council of Teachers of Mathematics, San Diego, CA.
- Tyminski, A. M.**, Kastberg, S., Richardson, S. E.* & Winarski, E.* (January 2010). *Developing Pre-service Teachers' Ability to Foster Mathematical Communication in Early Childhood Classrooms*. Presentation at the Fourteenth Annual Conference of the Association of Mathematics Teacher Educators, Irvine, CA.
- Walker, W. S.* & **Tyminski, A. M.**, & Woodward, J.* (April 2008). *Standards-based instruction through professional development partnerships*. Poster session at the Research Pre-Session of the National Council of Teachers of Mathematics, Salt Lake City.
- Hembree, D., **Tyminski, A.M.**, & Ledford, S. (April 2006). *What was really accomplished here*

today?: *Mathematics content specialists observe a class for prospective K–8 teachers.* Presentation at the Research Pre-session of the National Council of Teachers of Mathematics, St. Louis.

Mewborn, D. S., Sztajn, P., & **Tyminski, A. M.** (April 2005). *Intentional teacher educator preparation.* Presentation at the Research Pre-session of the National Council of Teachers of Mathematics, Anaheim.

Tyminski, A. M., Ledford, S., & Brink D. (February 2005). *Teacher lust.* Poster session at the National Science Foundation Meeting of Principle Investigators for Centers of Learning and Teaching, Washington, D.C.

Invited Presentations

Presentations

Tyminski, A. M. (November 2022). *Salmon it! Supporting Students' Mathematical Sense Making.* Keynote speaker at the Annual Conference of the South Carolina Council of Teachers of Mathematics, Greenville, SC.

Kastberg, S., Simpson, A., & **Tyminski, A.M.** (October 2022) *Creating, describing, and defining patterns to support visuospatial reasoning.* Invited Burst Session at the 2022 Annual Meeting of the National Council of Teachers of Mathematics, Los Angeles, CA.

Kastberg, S., **Tyminski, A.M.**, & Simpson, A., & (October 2022) *Representing and solving addition and subtraction story problems in grade pK – 2.* Invited Workshop at the 2022 Annual Meeting of the National Council of Teachers of Mathematics, Los Angeles, CA.

Simpson, A., Kastberg, S., & **Tyminski, A.M.** (October 2022) *Math in the making! Developing informal & humanistic math practices within play-making activities.* Invited Workshop at the 2022 Annual Meeting of the National Council of Teachers of Mathematics, Los Angeles, CA.

Simpson, A., **Tyminski, A.M.**, & Kastberg, S. (October 2022) *Seeing and representing our world through data and drawings.* Invited Burst Session at the 2022 Annual Meeting of the National Council of Teachers of Mathematics, Los Angeles, CA.

Tyminski, A. M., Kastberg, S., & Simpson, A. (October 2022) *Activities for developing place value and Base 10 understanding in pK – 2.* Invited Workshop at the 2022 Annual Meeting of the National Council of Teachers of Mathematics, Los Angeles, CA.

Tyminski, A. M., Kastberg, S., & Simpson, A. (October 2022). *Developing ideas of length in Grades pK – 2: Ideas and Activities.* Invited Burst Session at the 2022 Annual Meeting of the National Council of Teachers of Mathematics, Los Angeles, CA.

Tyminski, A. M. (March 2017). *Salmon it! Supporting Students' Mathematical Sense Making.* Keynote speaker at the Annual Conference of the Virginia Council of Teachers of Mathematics, Harrisburg, VA.

Tyminski, A. M. (March 2017). *Fractions Before Decimals: Building Algorithms with*

Meaning. Featured speaker at the Annual Conference of the Virginia Council of Teachers of Mathematics, Harrisburg, VA.

Tyminski, A. M. (November 2016). *Research In and About Mathematics Methods Courses*. Invited presentation at University of Georgia Department of Mathematics and Science Education Colloquium Series. Athens, GA.

Tyminski, A. M. (July 2015). *Grade PK – 2: Base Ten & Place Value*. Invited presentation at National Council of Teachers of Mathematics PK-5 Number and Operations Institute, Chicago, IL.

Tyminski, A. M. (July 2015). *Grade PK – 2: Addition and Subtraction*. Invited presentation at National Council of Teachers of Mathematics PK-5 Number and Operations Institute, Chicago, IL.

Tyminski, A. M. (July 2014). *Grade PK – 2: Counting and Cardinality*. Invited presentation at National Council of Teachers of Mathematics PK-5 Number and Operations Institute, San Diego, CA.

Tyminski, A. M. (July 2014). *Grade PK – 2: Addition and Subtraction*. Invited presentation at National Council of Teachers of Mathematics PK-5 Number and Operations Institute, San Diego, CA.

Land, T. J., & **Tyminski, A. M.** (June 2014). *Findings from CAREER work with prospective teachers*. Invited presentation at CAREER: Constructing Coherence Curriculum Meeting, East Lansing, MI.

Tyminski, A. M. (May 2011). *Developing pre-service elementary mathematics teachers' knowledge bases through Standards-based curriculum materials*. Invited presentation at Mathematical Sciences Research Institute 2011: Critical Issues in Mathematics Education, Berkley, CA.

Tyminski, A. M. (March 2010). *Fraction division algorithms through generalizations*. Featured speaker at the Annual Conference of the Virginia Council of Teachers of Mathematics, Harrisburg, VA.

Regional & State Conferences

Presentations

Tyminski, A. M. (October 2016). *Embedding elementary mathematics methods courses in schools: Using technology to represent, decompose, and approximate practice*. Presentation at the 3rd Annual Innovation in Teaching Conference at the University of Georgia, Athens, GA.

Tyminski, A. M. (March 2010). *Attribute activities for the early childhood classroom*. Presentation at the Annual Conference of the Virginia Council of Teachers of Mathematics, Harrisburg, VA.

Tyminski, A. M., Woodward, J.* & Walker, W. S., III.* (October 2009). *Fraction division algorithms through generalizations*. Presentation at the Annual Conference of the Indiana Council of Teachers of Mathematics, Indianapolis, IN.

Walker, W. S., III.*, **Tyminski, A. M.,** & Woodward, J.* (October 2009). *Implementing inquiry-*

based mathematics instruction. Presentation at the Annual Conference of the Indiana Council of Teachers of Mathematics, Indianapolis, IN.

Walker, W. S. III.*, **Tyminski, A. M.**, & Woodward, J.* (October 2008). *Using inquiry to impact mathematical instruction*. Presentation at the Annual Conference of the Indiana Council of Teachers of Mathematics, Indianapolis, IN.

Walker, W. S., III.*, **Tyminski, A. M.**, Kastberg, S., & McMasters, J. (November 2007). *Preparing all students for success in high school math: The middle level mathematics initiative*. Panel presentation at the Indiana's Future Conference: Equity, Engagement & Education for Economic Success, Indianapolis, IN.

Walker, W. S., III.*, **Tyminski, A.**, Woodward, J.*, & Hands, N. (October 2007). *Improving mathematics instruction through partnerships*. Presentation at the Annual Conference of the Indiana Council of Teachers of Mathematics, Indianapolis, IN.

Walker, W. S., III.*, **Tyminski, A.**, Woodward, J.*, & Hands, N. (October 2007). *Teaching mathematics through problem solving*. Presentation at the Annual conference of the Indiana Council of Teachers of Mathematics, Indianapolis, IN.

Other Presentations

Presentations

Alston, D. M.*, Zambak, V. S.*, Marshall, J. C., & **Tyminski, A. M.** (April 2013). *Equipping teachers for transformation: An exploratory study*. Presentation at HEHD Research Forum, Clemson University.

Zambak, V. S.*, Alston, D. M.*, **Tyminski, A. M.** & Marshall, J. C. (April 2013). *Inquiry in Motion: An investigation of a professional development program to change teachers' beliefs about inquiry-based instruction*. Presentation at HEHD Research Forum, Clemson University.

Marshall, J., **Tyminski, A. M.**, Higdon, R.*, Baldwin, A., & Cizmar, S. (April 2012). *Inquiry in Motion: Reflecting on three years of implementation*. Presentation at HEHD Research Forum, Clemson University.

Tyminski, A. M. (November 2011). *Elementary preservice teachers' critiques, comparisons, and preferences in examining Standards-based curricular materials*. Presentation at Eugene T. Moore School of Education Faculty Meeting.

Tyminski, A. M. (February 2007). *Teacher lust: Examining its antecedents and enactments in a college mathematics course*. Presentation at Purdue University Research Seminar.

Tyminski, A. M. (November 2006). *The dissertation: From conception to completion*. Presentation at Purdue University Curriculum and Instruction Graduate Student Association (CIGSA).

Tyminski, A. M. (October 2006). *Teacher Lust: Examining its antecedents and enactments in a college mathematics course*. Presentation at Purdue University New Faculty Research Forum.

Grants and Contracts

Funded

- Sanchez, W., Kastberg, S., Lischka, A. & **Tyminski, A. M.** (2015-2016). *Scholarly Inquiry and Practices (SIP) Conference for Mathematics Education Methods* (#1503358). National Science Foundation DRK-12 Grant Submission, \$99,974.
- Deaton, C. M., **Tyminski, A. M.**, & Hardwick, R. (2013-2016). *LMaST: Learning Mathematics and Science with Technology*. South Carolina State Department of Education, \$279,215.
- Horton, R., Marshall, J., Padilla, M., & **Tyminski, A. M.** (2012). *Center of Excellence for Inquiry in Mathematics and Science*. South Carolina Commission on Higher Education, \$112,497.
- Walker, W. S., & **Tyminski, A. M.** (2009). *Teaching Mathematics through Problem Solving*. Title I Grant. Southeastern School Corporation, \$12,500.
- Walker, W. S., III., Brown, C., **Tyminski, A. M.**, & Sorge, B. H. (2008). *Indiana Algebra Readiness Initiative*. Indiana Department of Education, \$249,791.
- Tyminski, A. M.** & Moss, E. R., (2007). *Engagement with Students' Mathematical Thinking as a Source and Outcome as Preservice Elementary Teacher Learning and Identity Development*. Purdue Research Foundation Research Grant, \$15,000 (internal).
- Walker, W. S., Hart, M. L., Smith, S. C. & **Tyminski, A. M.** (2007) *MS-RAPs: Mathematics and Science Readiness, Achievement, and Participation*. Indiana Mathematics and Science Initiative Grant, \$499,008.
- Yadav, A., **Tyminski, A. M.** (2007). *MR FIVE: Mathematical Reform From Interactive Video Experiences*. TLT Digital Content Development Grant, \$15,000 (internal).
- Not Funded*
- Tyminski, A. M.**, Land, T. J., & Koestler, C. (2022). *Promoting Students' Problem Solving Abilities Through the Development of Elementary Mathematics Teachers' Equitable and Responsive Problem Posing*. National Science Foundation DRK-12 Grant Submission, \$2,057,972.
- Tyminski, A. M.**, Drake, C., & Land, T. J. (2021). *Promoting Students' Problem Solving Abilities Through the Development of Elementary Mathematics Teachers' Equitable and Responsive Problem Posing*. National Science Foundation DRK-12 Grant Submission, \$2,146,299.
- Tyminski, A.M.**, Wieman, R., & Perry, J. (2020). *Learning to Launch – Launching to Learn Conference*. National Science Foundation, \$100,000.
- Tyminski, A. M.**, Drake, C., Land, T. J., & Bostick, J. (2020). *Collaborative Research: Promoting Students' Problem Solving Abilities Through the Development of Elementary Mathematics Teachers' Equitable and Responsive Problem Posing*. National Science Foundation DRK-12 Grant Submission, \$2,146,299.
- Gomez, C. N., Che, S. M., & **Tyminski A. M.** (2020). *Responsive Problem posing to Leverage Latinx and Black Students' Existing Algebraic Thinking*. Gates Foundation. Balance the Equation: A Grand Challenge for Algebra 1. \$65, 643

- Tyminski, A.M.,** Drake, C., & Land, T.J. (2019). *Promoting Students' Computational Fluency Through the Development of Elementary Mathematics Teachers' Equitable and Responsive Problem Posing*. Institute of Education Sciences, \$1,341,180.
- Tyminski, A.M.,** Wieman, R., & Perry, J. (2019). *Learning to Launch – Launching to Learn Conference*. National Science Foundation, \$100,000.
- Tyminski, A. M.** & Land, T. J. (2017). *Developing Elementary Mathematics Teacher Problem Posing Responses to Children's Mathematical Thinking (#10012916)*. Lyle Spencer Research Awards.
- Tyminski, A. M.,** Drake, C., & Land, T. J. (2015). *Project TRACKS (TRAjectory of Curriculum Knowledge and Support)*. National Science Foundation DRK-12 Grant Submission, \$449,032.
- Tyminski, A. M.,** Drake, C., & Land, T. J. (2014). *Project RESIDUE (Refining Educative Supports In Developing Undergraduate Experiences)*. National Science Foundation DRK-12 Grant Submission, \$448,699.
- Tyminski, A. M.,** Drake, C., & Land, T. J. (2013). *Project RESIDUE (Refining Educative Supports In Developing Undergraduate Experiences)*. National Science Foundation DRK-12 Grant Submission, \$445,629.
- Kenney, R., Newton, J., **Tyminski, A. M.,** & Walker, W. S. (2009). *Project S.H.A.R.E.²* Indiana State Department of Education, \$530, 656.
- Newton, J., Kenney, R., McClure, J. E., & **Tyminski, A. M.** (2009). *Special meeting for the development of advanced mathematical courses for mathematics education graduate students*. National Science Foundation Special Programs Grant, \$212,643.
- Milner, F., **Tyminski, A. M.,** Eiler, E., Taylor, J., & Staver, J. (2008). *Lafayette Up*. National Science Foundation Math and Science Partnership, \$7,200,000.

Awards and Honors

- Nominated for Outstanding Teaching Award – Eugene T. Moore School of Education, Clemson University, April 2015
- Nominated for Outstanding Teaching Award – Purdue University Department of Curriculum and Instruction, February 2009
- Nominated for Outstanding Teaching Award – Purdue University Department of Curriculum and Instruction, February 2008
- Outstanding Graduate Teaching Assistant Award – University of Georgia, April 2006

Teaching & Advising

Teaching

- | | |
|--|---------------------|
| Department of Teaching and Learning, Clemson University | July 2010 – Present |
| ED 8480 <i>Teacher Residency Seminar</i> | |
| EDEL 4820 <i>Capstone in Elementary Education</i> | |
| EDEC 4300 <i>Early Childhood Methods in Mathematics Teaching</i> | |

EDSC 6370 *Technology in Secondary Mathematics*
 EDEL 4520 *Elementary Methods in Mathematics Teaching*
 EDEL 4810 *Directed Teaching in the Elementary School*
 ED 4410 *Middle School Curriculum*
 ED 6110 *Middle School Curriculum*
 ED 9010 *Classics in Mathematics and Science Education Research*
 ED 8380 *Selected Topics in Education*
 ED 8600 *Action Research*

School of Statistical and Mathematical Sciences, Clemson University

August 2010 –
Present

MTHSC 117 *Math for Elementary Teachers I*
 MTHSC 118 *Math for Elementary Teachers II*
 MATH 1150 *Contemporary Mathematics for Elementary School Teachers I*
 MATH 1150 *Contemporary Mathematics for Elementary School Teachers I -- ONLINE*
 MATH 1160 *Contemporary Mathematics for Elementary School Teachers II*
 MATH 1160 *Contemporary Mathematics for Elementary School Teachers II -- ONLINE*
 MATH 2160 *Geometry for Elementary School Teachers*
 MATH 3150 *Advanced Topics in Mathematics for Elementary Teachers*
 MATH 3160 *Problem Solving for Mathematics Teachers*
 MATH 3160 *Problem Solving for Mathematics Teachers -- ONLINE*
 MATH 7130 *Algebra for Middle Grades Teachers*
 MATH 7140 *Foundations of Mathematics for Middle Grades Teachers*
 MATH 7380 *Modern Geometry for Secondary Teachers*

Department of Curriculum and Instruction, Purdue University

August 2006-
May 2010

EDCI 36400 *Mathematics in the Elementary School*
 EDCI 59100 *Number and Operation for Teachers of Middle Level Mathematics*
 EDCI 591E *Data Analysis and Probability for Teachers of Middle Level Mathematics*
 EDCI 591G *Geometry and Measurement for Teachers of Middle Level Mathematics*
 EDCI 591S *Algebra and Functions for Teachers of Middle Level Mathematics*
 EDCI 620A *Developing as a Mathematics Education Researcher*
 EDCI 620C *Designing Research in Mathematics Education*
 EDCI 635 *Content in Mathematics Education*

Advising

Eugene T. Moore School of Education, Clemson University
 Supervision in Graduate Research
Doctoral Committees

Major professor—Completed

V. Serbay Zambak, Ph.D., Curriculum and Instruction - Mathematics Education, 2014
 Ercan Dede, Ph.D., Curriculum and Instruction - Mathematics Education, 2017

Major Professor – In Progress

Jennifer Kornell, Ph.D., Curriculum and Instruction – Mathematics Education
 Kari Barger, Ph.D., Curriculum and Instruction – Mathematics Education
 Justin Brown, Ph.D., Curriculum and Instruction – Mathematics Education

Committee Member – Completed
McKenzie H. Brittain, Ph.D., Curriculum and Instruction – Mathematics Education,
2020

Committee Member – In Progress
Jennifer Goyea, Ph.D., Curriculum and Instruction – Mathematics Education
Farhana Afroz, Ph.D., Curriculum and Instruction – Early Childhood Education
Karen Enderle, Ph.D., Curriculum and Instruction – Mathematics Education

Master’s Committee

Committee Chair—Completed
James Drew Holbrooks, M. Ed., Teaching and Learning, 2017
Deana Sefcik, M. Ed., Teaching and Learning, 2016
Meghan Willard, M.Ed., Teaching and Learning, 2016
Coral Hoesli, M.Ed., Teaching and Learning, 2015

Department of Curriculum and Instruction, Purdue University
Supervision in Graduate Research
Doctoral Committees

Major professor—Completed
Erin R. Moss, Ph.D., Mathematics Education, 2009
Melissa Colonis, Ph.D., Mathematics Education, 2011
Committee Member—Completed
Carla V. Gerberry, Ph.D., Mathematics Education, 2009
Soo-Yeon Shin, Ph.D., Mathematics Education, 2014
Jerry A. Woodward, Ph.D., Mathematics Education, 2015

Master’s Committee

Committee Member—Completed
Matthew Lambert, M.A., Mathematics Education, 2008

Service

Service to Field of Scholarship

Editorial Panel

- Chair - *Mathematics Teacher Educator*. Association of Mathematics Teacher Educators & National Council of Teachers of Mathematics. February 2023 – February 2025
- *Mathematics Teacher Educator*. Association of Mathematics Teacher Educators & National Council of Teachers of Mathematics. February 2021 – February 2023
- *Teaching Children Mathematics*. National Council of Teachers of Mathematics, Reston, VA. April 2012 – April 2015

Conference Program Co-Chair & Organizer

- 40th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Greenville, SC: Clemson University & The University of South Carolina.
- PME-NA Steering Committee Member (2016 – 2019)

Editorship

- Department Editor/Co-Editor - The Early Childhood Corner, *Teaching Children Mathematics*, Volumes 14-16. National Council of Teachers of Mathematics, Reston, VA. July 2006 – May 2010

Grant Proposal Reviewer

- National Science Foundation – DRK12 (2024)
- National Science Foundation - DRK12 (2020)
- National Science Foundation: Academies for Young Scientists Panel (2006)

Manuscript Reviewer

- *Journal of Mathematics Teacher Education* (2007 – present)
- *The Mathematics Educator* (2002 - present)
- *Teaching Children Mathematics* (2006 – present)
- *Mathematics Teacher Educator* (2012 – present)
- *Journal of Teacher Education* (2014 – present)
- *Journal of Mathematical Behavior* (2014-present)
- *Educational Researcher* (2015 – present)
- *Research Companion for Principles to Action* (2015)

Conference Proposal Reviewer

- Psychology of Mathematics Education – North American Chapter (2005, 2007, 2011-2013, 2015-2018)
- Association of Mathematics Teacher Educators (2009, 2011 – 2013, 2020, 2025)
- National Council of Teachers of Mathematics – Research Pre-session (2007)

Textbook Review Panel

- Beckmann, S. (2008) *Geometry for Middle School Teachers*
- Hulbert, E., et al. (2017). *A focus on multiplication and division: Bringing research to the classroom. 2nd Edition*

Service to Profession

Membership in Professional Organizations

- National Council of Teachers of Mathematics (NCTM)
- Association of Mathematics Teacher Educators (AMTE)

Professional Organization Committee Member

- Associate Vice President of Publishing – Association of Mathematics Teacher Educators (2023-2025)
- Membership Committee – Association of Mathematics Teacher Educators (2011-2014)

Other National, State and Regional Service

- Member of Cradle to Career Collaborative Math Pathways Project Team 2016 - 2019
- Member of Indiana - Science, Technology, Engineering and Mathematics Resource Network (I-STEM) Middle School Mathematics Initiative Committee 2006 – 2009
- Member of I-STEM Mathematics Committee 2009 – 2010
- Member of I-STEM Strategic Planning Committee 2009 – 2010

University Service

Clemson University

- Clemson University Athletic Council (alternate) 2023-2024
- Leader – Mentor Circles: Goal Setting/Career Planning 2023-2024
- Member – University Academic Integrity Committee 2021 - present
- Member - University Academic Grievance Panel 2023 - 2024

• Member – College of Education TPR Work Group	2024- present
• Clemson University Experiential Learning Ambassador	2023- present
• Chair – Tenure, Promotion and Reappointment Committee	2022 – present
• Chair – Search committee: Elementary Education Lecturer	2022 – 2023
• Member – Search committee: Associate Professor of Science Education	2020-2021
• Member – Search committee: Elementary Education Lecturer	2019 – 2020
• Advisor – Order of Athena Mortar Board Honor Society	2018 -2021
• Member – Search committee: Secondary Mathematics Education	2017 – 2018
• Member - University Academic Grievance Panel	2017 - 2020
• Chair – Tenure, Promotion and Reappointment Committee	2017 – 2021
• Member – Continuous Improvement Committee	2020 - present
• Chair – Search committee: Elementary Mathematics Education	2016 – 2017
• Member – Tenure, Promotion and Reappointment Committee	2016 – 2017
• Member – Search committee: BA/MED Teacher Residency Director	2016 – 2017
• Member – Search committee: Elementary Education Lecturer	2016 – 2017
• Chair – Search committee: Director of Field and Clinical Partnerships/Outreach	2015 - 2016
• Member – Search committee: Grants Coordinator	2015 - 2016
• Member University Undergraduate Curriculum Committee	2014 - 2016
• Chair – SOE Curriculum Committee	2014 - 2016
• Chair – TE/TL Curriculum Committee	2014 - 2016
• Member – TE Curriculum Committee	2012 - 2014
• Member - HEHD Parking Review Board	2011 – 2014
• Member - Search Committee: Instructional Technology	2011 – 2012
• Member - Elementary Education Program Committee	2010 – present

Purdue University

- Member of the Department of Curriculum and Instruction Graduate Committee (2008 – 2010)
- Member of the Department of Curriculum and Instruction Elementary Education committee (2006 – 2010)
- Member of Search Committee – Mathematics Education Position (C&I) (2007 – 2008; 2008 – 2009; & 2009 – 2010)
- Member of Search Committee – Continuing Lecturer Position, Mathematics Department (2006 –2007)
- Member of Search Committee – Joint Mathematics and Mathematics Education Position, (2007 – 2008)
- Member of Advisory Committee for the Woodrow Wilson Fellowships (2007 – 2009).
- Member of Center for Research and Engagement in Science and Mathematics (2006 – 2010)